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SECURITY TOKEN OFFERING: LEGAL ISSUES

Master thesis

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LIST OF ABBREVIATIONS

ESMA – European Securities and Markets Authority

EU – European Union

ICO- Initial Coin Offering

NCA – National Competent Authority

STO – Security token offering

INTRODUCTION

The relevance of the master thesis. Financial world is a sophisticated mechanism that in, all the times has, been requiring the appropriate and comprehensive approach from the side of regulatory policy. The complexity and rapid development of the issues as well as substantial monetary volume which is involved in the deals conducted on the market, constantly demand careful and proactive reactions of the financial regulators and policymakers in general.

The sudden emerge and prompt spreading of the blockchain technology, particularly on the perspective of the investments and fundraising, attract a huge amount of the investors. Undoubtedly that ability to attract vast amounts of funds, as well as operation of these projects in a grey legal area, made them the perfect targets for the different kinds of scams. As a result, a lot of investors faced fraudulent behavior and market manipulations. In that turn, such events caused a fairly strict reaction of the state regulators and application from their side the securities laws as well as fines for non-complies with their requirements, to that type of fundraising activity, all over the world. Thus, the projects' reluctance faced the legal sanctions and demand of the investors of correspondence to the regulatory policies that have led to the appearance of the strong trend among the industry to correspond and issue from the very beginning tokens that fill all the requirements of the legal securities regulations. At the same time, lots of offerings that have been considered as a proposal of utility tokens according to the opinions of the regulators are supposed to be treated as securities and the securities laws should be applied. In that turn, lots of questions can be arisen further, because, as it was said by the ESMA the current legal norms and legal field concerning securities markets law was not initially designed for the phenomenal of Security Token offering and it has not been taken into account during the issuing of the regulation.[1]

At the same time, the utilization of current laws without any amends could probably force to a reduction of the benefits that can be achieved due to the use of blockchain technology in the venture capital markets. Due to the novelty of the phenomena, the peculiarities, and aspects of the conduction and future existence of Security token offering currently have inconstancies, as well as the legislation which is supposed to be applied to it leaves more question than answers. Thereby, the relevance of that work can be explained on the basis that it is clearly visible that uncertainties and challenges that already happen to exist and will be faced in the foreseen future at the industry should be revealed and analyzed in a more precise manner. Currently, the

[1] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 43, Accessed by: April 15, 2020
https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

implementation of the blockchain technology and tokenization of the assets are on the stage of the commencement, so it is crucial to have correct apprehension for all participants of the sphere in order to establish accurate regulation and avoid negative aspects that can be faced.

Scientific research problem. The intervention of the blockchain technology into the financial world and appearance of previously unknown instruments via which it is possible to carry out the investment activity and, fund-raising provoke lots of challenges for the financial regulators concerning the appropriate application of the legislation. Currently, the ambiguity or the insufficiency of the regulatory framework, cause the reducing of the benefits and creation of the dangerous gaps for the investors and issuers of that technology. The novelty of that instruments and the fact that current legislation initially has not been designed for the regulation of the relationships which are linked with issuing of tokens that are considered to be securities can be a signal about the possibility of arising the problems basing concerning conduction and future turnover of the Security Tokens for both: projects that are issuing security tokens and utility tokens, or investors and traders.

Due to the demand of the higher degree of the legal certainty which is actually formed by the financial industry, arises a further very important question: **whether the current legal instruments are capable of resolving adequately the new challenges connected with the conduction and future orchestrating of "Security token offering" encouraging the benefits and reducing of the disadvantages of that phenomena ?** This work is purported to establish a comprehensive answer to that question.

Level of the analysis of a researched problem of the final thesis. Notwithstanding the popularity of the blockchain technology and cryptocurrencies in general, the amount of the scientific literature which is available concerning the exact topic of the “Security Token Offering” is not so significant. Most of that amount contains the selective scientific articles that eventually consider a few aspects of the security tokens but not analyze the phenomena complexly in the light of the correspondence of the current legislation to the challenges that can be presented in a context of Security token offering. In general, the scope of scientific literature used in that research can be divided into two main categories, which concerns securities markets law in general as well as more proficient and precious sources, close to the topic. Also, that master thesis work includes the opinions of European Securities and Markets Authority and Member states regulators, expressed concentering the interpretation, application, and future reform of the legal framework in the EU and other states.

The **scientific novelty** of the master thesis. The legal problems linked with the conduction and future orchestrating of the Security token offering not only currently exist but also arise on a daily basis. Due to the novelty of that direction and ambiguous regulation which

currently tended to be applied to the business structures which already happen to exist, leave lots of matters to consider. At the same time, the number of legal scientists and the number of researches that have been executed in that destination is not so huge, lots of uncertainties concerning crypto assets which qualified as securities, and conduction of the Security token offering have been untouched or covered partially. It can be explained by the youth of the blockchain application to the venture capital markets. Thus, this master thesis in purported to consider new challenges of the industry and respond not only to the uncovered aspects but also to encompass new ones on the point of the application of the current legislation as well as possible changes that can be executed in the future.

The main aim of the master thesis. The crucial aim of that master thesis is to analyze the scope of possible law challenges and gaps that subsist in the current legislation concerning conduction and further turnover of the Security token offering in the secondary markets and to propose some legal solution paths against the problems that will be indicated.

Objects of Master thesis. In order to gain the primary purpose of that work, further tasks should be accomplished**:**

1) To clarify, the core peculiarities of the Security token offering nature, its features and, legal treatment from the positions of practice and legal doctrine as well as to identify in the law sense, the strengthens and weaknesses of the use of blockchain technologies in the securities field.
2) To identify the legal status of the security tokens in the context of qualification under the EU Law and national legal orders of particular Member States.
3) To determine the legal uncertainties that might be faced during the conduction and further management of the Security token offerings, on the level of EU law and also to review, and propose the possible solutions concerning detected legal problems.

The Practical significance of that research is grounded on a number of reasons. First of all, this thesis may levy within the scope of the interest of legal practitioners and scholars who are majoring in the sphere of capital markets law, especially in the niche of the securities market, who have been dealing with theoretical and practical aspects of conducting and further orchestrating as well as legal regulation of token offering which could be considered of being securities.

The second fraction of people who might be wondered about that work is entrepreneurs and orchestrators of different projects who are on the verge of or considering the emission of securities directly linked which blockchain technology.

Probably, this work also can be found worthy of attention by the students who have a substantial wish to make their knowledge deeper on the topic of Security token offering.

Obviously, the interest of all aforementioned groups of professionals can be explained by the scope of legal challenges and controversies, which currently exist it the industry. The lack of proficiency and experience, on the one hand, general popularity due to the opening of new possibilities and novelty of the phenomena among business circles on the other, also may instigate the attention to that work on the theoretical and practical point of view. The solutions, overviews, and examples of legislation comparisons that already exist that are contained by that master thesis work can be useful for the legislators and practitioners at both regional and national levers of dealing.

The wide range of different **research methods** will be utilized in the current master thesis work.

Firstly, the method of information systematic analysis is utilized in that work. The use of that method is stipulated by the need for identifying, organizing, and groping the information containing in the legislation, scientific, researchers and articles. The additional sources of data which are contained in the opinions of different practitioners and experts also will undergo through the comprehensive analysis in that work. Application of that method gives an opportunity to conduct the deep assay of the problem, orchestrate the information and come to relevant conclusions.

Secondly, the method of comparative analysis is utilized in that work. In essence, the presence of that method is reasoned by the necessity of deep and comprehensive assay in terms of comparing different legal approaches and opinions that exist within both regional and national levels concerning the Securities market regulation.

Thirdly, the logical method is engaged during the work on that master thesis. It gives a more coherent and apprehensive understanding of the problems and uncertainties that are situated within the scope of questions arisen in that work, as well as it plays the role sort of assistant for the whole range of mentioned methodology.

The structure of the master thesis. That master thesis work contains three main parts.

The first part of the work is dedicated to the explanation of the technologies that are behind the Security token offering, clarification of their features, and their assessment from the legal point of view.

The second part is dedicated to the peculiarities of the Security token offering and correlation between that phenomena and securities market legislation. In particular, the aspects and possible legal problems, that might be faced on the stage of qualification of security tokens, on the level of both EU law and the legal orders of particular Member States.

The third part of the work includes the analysis of legal gaps and unclear aspects that is possible to face during the issuing of the security tokens and further activity concerning them in the international and some national legal frameworks.

Defense statement of that work: Current securities regulatory framework that is established on the EU-law level and in the level of the legal orders of the Member States should be changed taking into account the digital nature of the Security token offering.

1. THE NATURE OF SECURITY TOKENS OFFERING

The financial sector is currently undergoing a major transformation, brought about by the rapid development and spread of new technologies. The combination of "finance" and "technology'" is often referred to as "Fintech", usually describe the part of the financial sector that uses the modern technologies to increase the level of the rendering the financial services. FinTech developments are seen across all areas of the financial sector, including payments and financial infrastructures, consumer lending, insurance and investment management etc. One of the spheres that has appeared within the Fintech is a domain of the digital assets.[2]

With the introduction of the blockchain technology, numerous projects and products has appeared in the market. Mostly, it was the companies on initial stages and acting in online domain. Crypto-assets, such as Bitcoin, Ethereum and analogical projects has increased tremendously for the last few years. These markets remain small compared to the global financial system, and crypto assets are not yet widely used for financial transactions, but markets are changing rapidly. The, introduction of fully functioning infrastructure such as: crypto-exchanges, crypto-asset funds and trusts and exchange-traded products, as well the increasing interest from the various groups of investors, raise questions about the implications of crypto-assets for financial stability.[3]

Especially, the issue of digital assets become relevant when they start to reassemble or have the content in terms of the rights that is comparable with those that traditional financial instruments have. In such terms, the real "boom" has occurred during 2017-2018 in the sphere of crowdfunding. Different entities and even individuals started to the utilized the blockchain technologies for the production of the digital assets. Aftermath, such assets, were offed and sold to the retail investors via the internet. Frequently, that assets granted to their owner a number of economic and governmental rights or the rights to get a revenue. At the same time, the legal status and treatment of them left more questions than answers for the regulators. Moreover, the current regulatory framework is incomplete with respect to treatment digital assets and have a number of gaps and uncertainties. At the same time, the technologies that are behind such assets, also might bright a number of previously unknown risks in the financial industry.

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[2] International Bank for Reconstruction and Development / the World Bank "Distributed Ledger Technology". 2017: 11, Accessed by: February 15, 2020 http://documents.worldbank.org/curated/en/177911513714062215/pdf/122140-WP-PUBLIC-Distributed-Ledger-Technology-and-Blockchain-Fintech-Notes.pdf.

[3] Crypto-asset markets Potential channels for future financial stability implications, Financial Stability Board. October 10, 2018.
https://www.fsb.org/wp-content/uploads/P310519.pdf

1.1 Technologies underlining the Security Token Offering and genesis of crypto industry

Blockchain emerged in 2008 when the world faced the financial crisis. There were by a lot of political theories and social philosophies, but it was a technology which quickly started to inspire many because of its characteristics and peculiarities. Intermediation services that are rendering by the banks and investment services providers were failed in terms of the trust. On the other side, the financial community started to concentrate around the concept of disintermediation and cutting out the abuse of monopolistic sectors, including those appropriating private data to their own benefit. Decentralization, disintermediation, autonomy become new ideas strongly supported around the member of the financial community.[4]

Blockchain is a particular type or subset of so-called distributed ledger technology (DLT).[5] "DLT refers to the technological infrastructure and protocols that enable simultaneous access, validation, and record-keeping by multiple stakeholders in an immutable manner across a distributed and decentralized network." [6] Hence, "blockchain is essentially a database of records, or ledger of all transactions or digital events that have been ever executed and shared among participating parties".[7] All information about the transactions that have been ever conducted by the participants are stored in the distributed ledger in the form of blocks of data. A block of new information is attached to the chain of blocks that were created before by the computerized process via transactions are validated by the participants. Hence, the ledger is created and maintained.[8] Blockchain has the following features:

- Security. Blockchain utilizes asymmetric cryptography, a cryptographic system that uses two pairs of keys, public and private. A public key is open and publicly known. The primary purpose of that key is identification, of the owner among the other participants.

[4] Ganado, Max. "Blockchain: Some Legal Considerations Relating To Security Token Issuance". *GANADO Advocates*, 2019. https://ganadoadvocates.com/resources/publications/blockchain-some-legal-considerations-relating-to-security-token-issuance/.

[5] Houben, R. and A. Snyers, Cryptocurrencies and Blockchain, "Legal Context and Implications for Financial Crime, Money Laundering and Tax Evasion: Study Requested by the TAX3 Committee". *European Parliament,* 2018: 15 Accessed by February 5, 2020, https://www.europarl.europa.eu/cmsdata/150761/TAX3%20Study%20on%20cryptocurrencies%20and%20blockchain.pdf

[6] Collet Laurent, Simon Ramos, Thibault Chollet, Patrick Laurent, Pascal Martino, and Benoit Sauvage "Are token assets the securities of tomorrow?" Www2.Deloitte.Com, 2019: p.4 Accessed by February 5, 2020, https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-token-assets-securities-tomorrow.pdf

[7] Michael Crosby et al., "Blockchain Technology Beyond Bitcoin Sutardja Center For Entrepreneurship & Technology Technical Report", Scet.Berkeley.Edu, 2015, https://scet.berkeley.edu/wp-content/uploads/BlockchainPaper.pdf.

[8] Financial Stability Board, Crypto-assets Work underway, regulatory approaches and potential gaps, 31 May 2019: 10, Accessed: February 15, 2020 https://www.fsb.org/wp-content/uploads/P310519.pdf

Private keys are known to the owner only and used for authentication and encryption.[9] That two pairs of keys are interconnected. In other words, the public key is referring to the "address" of the participant, and the private key is comparable with the electronic signature testifying the authority of that participant to conduct that transaction. For example, if certain assets are recorded on the blockchain, it is ensured that this ownership is kept exclusive to the disposal of the lawful owner only.[10] The opportunity to conduct any transactions in the system with that asset is impossible without having the access to the private key.

- Immutability. In blockchain network, every block is referenced by a unique length of computer code created by a cryptographic hash function. An outstanding feature of this function is that it can accept any amount of initial information and generate a fixed length characters as a result. That computer code is known as a hash. Via the hash the blocks are connected in the system, each block is storing the hash of the pre-exiting block. Also, it should be noted that even a small change in the initial information that is possessed by the hash-function generates an entirely different hash as a result.[11] As an effect, the stored information in the chain is interconnected. Hence, the opportunity to be changed is exempt, since to alter one block the whole string should be changed.

- Blockchain is distributed, which means that there is no centralized storage location such as a central server or a cloud computing platform and all date is storing by the participants in their computers.[12] Importantly, each participant stores the encrypted copy of the whole ledger, and is able to access that data.[13] The chain is continuously updating via the internet, and if the participant is offline during the addition of the new block, missing information will be updated once that computer will be connected to the network and update its own version of the chain.

- Blockchain is decentralized and self-governed. "No single user of the network controls the information or the data on the blockchain, and no one is in charge of maintaining

[9] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 43, Accessed by: April 15, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[10] Pascal Witzig and Victoriya Salomon, "CUTTING OUT THE MIDDLEMAN: A CASE STUDY OF BLOCKCHAIN-INDUCED RECONFIGURATIONS IN THE SWISS FINANCIAL SERVICES INDUSTR", Unine.Ch, 2018, http://www.unine.ch/files/live/sites/maps/files/shared/documents/wp/WP-1_2018_Witzig%20and%20Salomon.pdf.

[11] "6 Key Features Of Blockchain : This Is What Makes Blockchain So Exciting! – The Fintech Way". *Thefintechway.Com*. Accessed 5 February 2020. https://thefintechway.com/6-key-features-of-blockchain/.

[12] Mendelson, Michael. "From Initial Coin Offerings to Security Tokens: A U.S. Federal Securities Law Analysis." *Stanford Technology Law Review* 22, no. 1, (2019): 52–94. http://search.ebscohost.com.skaitykla.mruni.eu/login.aspx?direct=true&db=a9h&AN=135320197&site=ehost-live.

[13] Collet Laurent, Simon Ramos, Thibault Chollet, Patrick Laurent, Pascal Martino, and Benoit Sauvage "Are token assets the securities of tomorrow?" Www2.Deloitte.Com, 2019, Accessed by: 5 February 2020, https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-token-assets-securities-tomorrow.pdf.

its proper functioning".[14] Instead, "connected on a peer-to-peer basis, the network participants can share and maintain identical, cryptographically secured records in a decentralized manner."[15] This means that, participants during the conduction of the transactions interact directly between each other and central validation system is removed by the mutual agreement of participants of the network regarding the state of the chain. For the achievement of common agreement concerning the current state of chain and authenticity of the information stored there and also to filter the irrelevant and dishonest information, the blockchain network utilizes a special verification method, which is called consensus mechanism. It can be described as a process by which a selected number of participants or even all of them agree which transactions and blocks are valid and which is the most recent version of the ledger.[16] When the new block is supposed to be added to the chain, it is broadcasted to all the participants of the network. Since all blocks in the chain are interconnected, credibility, and genesis of the information or transactions stored in the proposed block can be verified by the participants. What gives to them not only an opportunity to decide about the appropriateness of the supposed changes but also, automatically audit the truthfulness of the chain each time when such alterations are proposed.

Blockchains can have two main forms: public or private. Public networks are open to any participant that is willing to join on the condition of having the relevant software. Any data that is saved in a public blockchain can be accessed by all network participants, in encrypted form. In comparison with that, private networks are permissioned networks, and the opportunity to join to them is granted by the selected entities".[17] "On private networks, permission levels may also be tiered such that different entities and individuals may have varying levels of authority to transact and view data".[18] Concerning financial instruments, the use of private networks might be more relevant since there is no number of concerns of the governments and regulators that they have about permissionless blockchains such as identity verification of network members, who should

[14] Schrepel, Thibault. "Collusion By Blockchain And Smart Contracts". *SSRN Electronic Journal*, (2019): 119 Accessed 5 Feb. 2020. doi:10.2139/ssrn.3315182.
[15] Financial Industry Regulatory Authority, Report on Distributed Ledger Technology: Implications of Blockchain for the Securities Industry, January 2017: p 2, Accessed February 15, 2020. https://www.finra.org/sites/default/files/FINRA_Blockchain_Report.pdf
[16] Evangelos Benos, Rodney Garratt and Pedro Gurrola-Perez, The economics of distributed ledger technology for securities settlement, Staff Working Paper No. 670 Bank of England, August 2017: p.17, Accessed February 15,2020 https://www.bankofengland.co.uk/-/media/boe/files/working-paper/2017/the-economics-of-distributed-ledger-technology-for-securities-settlement
[17] Financial Industry Regulatory Authority, Report on Distributed Ledger Technology: Implications of Blockchain for the Securities Industry, January 2017: 3, Accessed February 15, 2020. https://www.finra.org/sites/default/files/FINRA_Blockchain_Report.pdf
[18] ibid.

be to licensed and regulated and responsible in case of breaking the rules, and legal ownership of the ledger.[19]

The Group of the World Bank has outlined that: "The most commonly cited technological, legal and regulatory challenges related to DLT concern scalability, interoperability, operational security and cybersecurity, identity verification, data privacy, transaction disputes and recourse frameworks, and challenges in developing a legal and regulatory framework for DLT implementations, which can bring fundamental changes in roles and responsibilities of the stakeholders in the financial sector".[20] At the same time, European Securities and Markets Authority (ESMA) has stated: that "DLT could bring a number of benefits to securities markets. Meanwhile, those benefits come with a number of conditions. Potential benefits […] can be grouped into four categories, namely (i) more efficient post-trade processes, (ii) enhanced reporting and supervisory functions, (iii) greater security and availability and (iv) reduced counterparty risk and enhanced collateral management. A fifth benefit, which would follow on from the former, are reduced costs for providers of financial services and ultimately their users".[21] Also, it should be added that blockchain can utilized with the purpose of certain legal risks mitigation. For example, automating certain terms and conditions of legally binding agreements through the embodiment of them in the computer code may reduce the risk of the contract non-performance, the difference in interpretation, or mistakes in the execution of its provision.[22]

One of the earliest applications for blockchain technology has been digital currencies such as Bitcoin.[23] In 2008, an individual or group of individuals under the real name or pseudonym: Satoshi Nakamoto published a paper with the title, "Bitcoin: A Peer-to-Peer Electronic Cash System".[24] In that document Bitcoin is defined as: "A purely peer-to-peer version of electronic cash would allow online payments to be sent directly from one party to another without going through a financial institution".[25] Public pemissioness blockchain that is a core of bitcoin network, allows users to join freely by uploading the computer program so-called "wallet" that, to some

[19] International Bank for Reconstruction and Development / the World Bank "Distributed Ledger Technology". 2017: 11, Accessed by: February 15, 2020 http://documents.worldbank.org/curated/en/177911513714062215/pdf/122140-WP-PUBLIC-Distributed-Ledger-Technology-and-Blockchain-Fintech-Notes.pdf.

[20] ibid

[21] European Securities and Markets Authority, Report on "The Distributed Ledger Technology Applied to Securities Markets" ESMA50-1121423017-285, February 2017: 5, Accessed by: February 15, 2020 https://www.esma.europa.eu/sites/default/files/library/dlt_report_-_esma50-1121423017-285.pdf

[22] Committee on Payments and Market Infrastructures "Distributed Ledger Technology In Payment, Clearing And Settlement - An Analytical Framework" Bank for International Settlements 2017: 16 https://www.bis.org/cpmi/publ/d157.htm.

[23] Wright, Aaron, and Primavera De Filippi. "Decentralized Blockchain Technology And The Rise Of Lex Cryptographia". *SSRN Electronic Journal*, (2015):9. doi:10.2139/ssrn.2580664.

[24] Satoshi Nakamoto, Bitcoin: a peer-to-peer electronic cash System, 2008:1. Accessed February 15, 2020, https://bitcoin.org/bitcoin.pdf

[25] Ibid

extent, is comparable with the traditional internet banking application. Based on the asymmetric cryptography, that software permits users to transfer the native units of exchange in the system - Bitcoins.

"The next generation of the Blockchain after the Bitcoin was Ethereum platform."[26] Ethereum is a decentralized computing platform. In that system, blockchain records computer codes that are executed by every participating computer. Further that computer codes creates decentralized applications or smart contracts. Running of such codes is conducted for the payment in native cryptocurrency of the platform that is called "ether".[27] All that process is possible due to the Ethereum Virtual Machine - a unique computer mechanism that is integrated into each computer and capable of performing programing code. So in a simple terms, Ethereum can be described as a platform that is like an operating system of the computer on top of which software applications can be built.[28] Due to permisionless of the platform, anyone can code the smart contracts or decentralized applications with their own arbitrary rules for ownership, transaction formats, and other functions.[29] In terms of token offerings, the invention of the Ethereum platform had a tremendous role since that type of the system became a technical basis for making transactions with the tokens via the smart contracts.

In essence, "smart contracts are self-executing pieces of code that replicate a given contract's terms. They effectively translate complex contractual terms, e.g., payment terms and conditions, into computational material to automate the execution of contractual obligations."[30] "To develop it, parts of the terms that make up a traditional contract are coded and uploaded to the blockchain, producing a decentralized smart contract that does not rely on a third party for record keeping or enforcement. Contractual clauses are automatically executed when pre-programed conditions are satisfied." [31] "It makes transactions transparent, fraud-resistant, faster, and

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[26] Kaidong Wu, Yun Ma, Gang Huang, and Xuanzhe Liu, "A First Look At Blockchain-Based Decentralized Applications", *Software: Practice And Experience*, (2019):2. doi:10.1002/spe.2751

[27] Dr Garrick Hileman and Michel Rauchs. Global Cryptocurrency Benchmark Study, *Cambridge Centre for Alternative Finance, University of Cambridge, Judge Business School,* (2017):19

[28] Houben, R. and Snyers, A., Cryptocurrencies and Blockchain: Legal Context and Implications for Financial Crime, Money Laundering and Tax Evasion: Study Requested by the TAX3 Committee. *European Parliament,* 2018: 34, Accessed by February 5, 2020 https://www.europarl.europa.eu/cmsdata/150761/TAX3%20Study%20on%20cryptocurrencies%20and%20blockchain.pdf

[29] Vitalik Buterin. "A Next-Generation Smart Contract and Decentralized Application Platform." (2015), Accessed February 8, 2020. https://pdfs.semanticscholar.org/0dbb/8a54ca5066b82fa086bbf5db4c54b947719a.pdf?_ga=2.87921947.2030255691.1583160627-1762600798.1583160627

[30] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 11, Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[31] Hossein Kakavand, Nicolette Kost De Sevres, and Bart Chilton. "The Blockchain Revolution: An Analysis Of Regulation And Technology Related To Distributed Ledger Technologies". *SSRN Electronic Journal*, (2017): 29, doi:10.2139/ssrn.2849251.

irreversible, and does not require a central authority." [32] The application scope of the smart contracts is reduced since the information about the satisfying of the contract's conditions, only can be taken automatically from the network where smart contract operates. In other words, it cannot interact and check the performance of the obligations or occurrence of the events in the real world. However, its application within the simple transactional operations for the creation and secured exchange of the units that represent some value is exceptionally accurate. ESMA has stated that "there should be a means to ensure that the protocol and smart contracts underpinning crypto-assets and crypto-asset activities meet minimum reliability and safety requirements. More generally, the novel cyber security risks, including the risks of hacks, posed by DLT should be considered, to assess whether they are appropriately addressed by the existing set of rules". [33]

The next stage that caused the appearance of the Security token offering phenomenon the emergence and widespread of the Initial coin offering (ICO) or how it is sometimes called Initial Token Offering. "ICOs are indeed an alternative form of crowdfunding that have emerged outside the traditional financial sector and mostly finance projects on a public blockchain." [34] In the essence, ICO is a process via the which different entities raise capital for their projects in exchange for crypto assets. Basically, they create their own crypto asset and sell it to the publicity.[35] Such deals can be conducted via the both: traditional mediums of payment and cryptocurrency such as Bitcoin. The rights of the buyers in that case could have various meanings, from the ability to use the options of the project in future, till the entitlement for the profits from the future activity of the issuers.

From the technical point of view, there are two main form of ICO conduction: within the smart contract and within the creation of the separate blockchain. In first type, to create the unit of exchange - token, and to conduct the process their distribution, the smart contract is uploaded to another blockchain, like Ethereum.[36] "The contract stores the addresses of the token owners, together with the amount of owned tokens, and allows transfers only if the sender shows the ownership of the private key associated to the address." [37] The second form of ICOs is based on

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[32] "What is a smart contract?" Cryptonews, Accessed February 10, 2020. https://cryptonews.com/guides/what-is-a-smart-contract.htm

[33] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 37 Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[34] Barsan, Iris M., "Legal Challenges of Initial Coin Offerings (ICO)" *Revue Trimestrielle de Droit Financier (RTDF)* n° 3 (2017): 54. Available at SSRN: https://ssrn.com/abstract=3064397

[35] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 43 Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[36] Lauren Rhue, "Trust Is All You Need: An Empirical Exploration Of Initial Coin Offerings (ICOs) And ICO Reputation Scores", SSRN Electronic Journal, (2018), 6. doi:10.2139/ssrn.3179723.

[37] Fenu, Gianni, Lodovica Marchesi, Michele Marchesi and Roberto Tonelli. "The ICO phenomenon and its relationships with ethereum smart contract environment." 2018 International Workshop on Blockchain Oriented Software Engineering (IWBOSE), (2018):26

the creation of a new blockchain by the project to run its token.[38] In that case the information about the ownership or the tokens is stored on the distributed database, and system is functioning autonomously from any other platforms. Frequently the terms "token" and "coin" are used interchangeably, but as far as it can be observed, they are different in terms of the technological arrangement. At the same time, the first type can be considered as a more flexible and more automatic because of the possibility to program in advance the opportunities of token utilization and the rights accompanied by it. That classification is quite conditional since, notwithstanding the chosen type, the rights of the buyers could have various meanings, from the ability to use the services of the project in future, till the entitlement of the holders for the profits from the future activity of the issuers.

Nowadays, Initial Coin Offerings a quite widespread. They become a comparably cheap way of crowdfunding for the stat-ups. "The first ICO was held by Mastercoin back in 2013, a cryptocurrency project that was built on the Bitcoin blockchain. The project collected approximately 5000 BTC (worth around $500,000 at that time)".[39] According to ICObench statistics, 5,156 ICOs have been conducted in the period of 2014 to May of 2019. The total amount of funds that have been collected by those projects is around $26 billion.[40] There are several reasons and explanations of ICOs' popularity: low costs, rapid arranging in comparison with traditional securities, absence of regulatory framework, and financial intermediaries.[41]

However, the absence of the regulatory framework brought not only positive effects but also negative. According to the research that has been published in July 2018, by the Statis group, approximately 80% of the ICO projects can be considered as misleading and fraudulent.[42] At the same time, almost all ICOs rely on legislative gaps and uncertainties and consider themselves to be operating in a non-regulated area. Generally, only 32.70% of the ICOs specify the law that is applicable to their projects. ICOs are inconsistently regulated across the world, and the exact rules depend on the particular jurisdiction.[43] For example, Chine and South Korea followed the

[38] "Initial Coin Offerings: High Risks For Consumers". *Bafin*, 2017. Accessed by: April 15, 2020 https://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2017/fa_bj_1711_ICO_en.html.
[39] Kevin Wang, Cristiano Bellavitis, and Carlos M. DaSilva, "An Introduction To Blockchain, Cryptocurrency And Initial Coin Offerings", *SSRN Electronic Journal*, (2018), doi:10.2139/ssrn.3288059.
[40] Artem Popov, "Council Post: Life After The ICO Hype: What's In Store For The Collective Investment Market?". *Forbes.Com*, 2019, https://www.forbes.com/sites/forbestechcouncil/2019/10/25/life-after-the-ico-hype-whats-in-store-for-the-collective-investment-market/#1998c8593b17.
[41] David Florysiak, and Alexander Schandlbauer, "The Information Content Of ICO White Papers". *SSRN Electronic Journal*, (2018), 1. doi:10.2139/ssrn.3265007.
[42] "CRYPTOASSET MARKET COVERAGE INITIATION: NETWORK CREATION". Statis Group, Research.Bloomberg.Com, 2018, Accessed by: April 15, 2020. https://research.bloomberg.com/pub/res/d28giW28tf6G7T_Wr77aU0gDgFQ.
[43] Daniel Diemers, Henri Arslanian, Grainne McNamara, Günther Dobrauz, and Lukas Wohlgemuth, "Initial Coin Offerings A Strategic Perspective", *Cryptovalley.Swiss*, 2018, Accessed by: April 14, 2020 https://cryptovalley.swiss/wp-content/uploads/20180628_PwC-S-CVA-ICO-Report_EN.pdf.

restrictive approach and banned that phenomenon as such.[44] "In early, 2018 the U.S. Securities Exchange Commission Chairman stated he believes nearly all ICOs to constitute securities. Various national regulators began taking action against token issuers, seeking monetary penalties and blockade of further sales."[45] At the same time, at the beginning of the 2018, the new types of ICO commenced appearing - Security token offerings. The problems with the regulation and the desire of the market participants to exploit the benefits that have been demonstrated by the token offerings gave birth to the idea of conduction the ICO that would be legally compliment and in a legit manner, could be used for investment purposes.

Thus, in less than a decade, blockchain technology has made fundamental changes to the financial system. From 2008, till now, a separate class of the virtual assets have been appeared. At present, there is no a commonly adopted definition of the crypto assets, but this is essential if we are to accurately define and understand what does and does not qualify as such. It is essential because various types of assets might have a different legal status and regulatory perspectives. [46] According to the Financial Stability Board, crypto-assets, are a type of private asset that depends primarily on cryptography and DLT as part of its perceived or inherent value. Crypto-assets can function as, or have characteristics of, digital means of exchange that are not backed by an issuer such as Bitcoin, or other digital tokens, including security tokens, asset-backed tokens representing ownership interests in property, or so-called utility tokens used to obtain access to goods or services on a particular digital platform.[47] Importantly, that crypto-assets, has their functioning infrastructure

1.2 What is the Security Token Offering?

"The phrase 'STO' or 'Security Token Offering' is used to describe the issue of security tokens to individuals, which is recorded on the blockchain."[48] To some extent, such offerings can be defined as sub-type of initial coin offerings since the acronym ICO is used for the

[44] "South Korea Bans All New Cryptocurrency Sales". News release, CNBC, 2017. https://www.cnbc.com/2017/09/28/south-korea-bans-all-new-cryptocurrency-sales.html.'
[45] "SEC And CFTC Offer Views On Regulation Of Virtual Currency | Global IP & Technology Law Blog", *Global IP & Technology Law Blog*, 2020, Accessed by: April 15, 2020, https://www.iptechblog.com/2018/02/sec-and-cftc-offer-views-on-regulation-of-virtual-currency/
[46] Laurent Collet, Simon Ramos, Thibault Chollet, Patrick Laurent, Pascal Martino, and Benoit Sauvage. *Www2.Deloitte.Com*, 2019: 2, Accessed by: April 15, 2020, https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-token-assets-securities-tomorrow.pdf.
[47] Financial Stability Board, Crypto-assets Work underway, regulatory approaches and potential gaps, 31 May 2019: 10, Accessed: February 15, 2020, https://www.fsb.org/wp-content/uploads/P310519.pdf
[48] Andrew Solomon, and Alexander Torpey, "Security Tokens: A New Class Of Crypto Assets | Corporate And Commercial Law Blog | Kingsley Napley". *Kingsleynapley.Co.Uk*, 2019. https://www.kingsleynapley.co.uk/insights/blogs/corporate-and-commercial-law-blog/security-tokens-a-new-class-of-crypto-assets#page=1.

offering of the crypto assets to the interested parties.[49] While STO has a narrow meaning. The term derivates from the classification of 'securities tokens' as being those crypto assets that, due to their features, are subject to securities regulations. It is therefore understood to cover all offerings of the crypto assets that are within the scope of securities regulation.[50] As it was pointed out in a previous chapter, tokens may be produced in two ways: with the establishment of the own blockchain and using the already extraneous ecosystem like Ethereum. Both of them are eligible for the security tokens, but the first one is more common amongst the issuers due to the lower level of complexity and costs.

Security token offerings are blockchain-based model of interaction between the issuer and the investors it will have typical features for the crypto assets. The ownership regarding the tokes is recorded in a common database as well as transactions that are conducted in the system. To be able to become the owner of the token, investor needs to have a digital wallet where the issued tokens will be transferred and stored. Importantly, STO projects do not use the services of the underwriters or the banks like the issuance of the traditional financial instruments. Usually, the offer to purchase the tokens is addressed to an indefinite range of persons.

The issuance of crypto-assets is generally accompanied by a document describing crypto-asset and the ecosystem around it, the so-called 'White Papers'. "Those 'White Papers 'are, however, not standardized and the quality, the transparency, and disclosure of risks vary greatly."[51] Apparently, in case of security tokens, it is supposed to be compliant with a number of legal requirements in the jurisdictions where they are offered. However, due to the difficulties of classification of the crypto assets in general, some projects may have the features of the securities but at the same time, may not comply with the requirements possesses by the legislation for analogical with regard to financial instruments. Moreover, the selling of the tokens is conducted online and usually it is not simple to restrict the widespread or exclude the investors form particular jurisdiction out of the offering scope. On the same, there might be an issue for the National Competent Authorities (NCAs), in terms of determination of the jurisdiction.

After selling to the publicity, the security tokens may be listed in a so-called crypto-assets exchanges or crypto-assets trading platforms. Such trading platforms can be divided into

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[49] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019, Accessed by April 15, 2020, https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[50] Mark Kalderon, Claire Harrop, and John Risness. "Cryptoassets - What You Need To Know Freshfields Knowledge". *Knowledge.Freshfields.Com*, 2019:3, Accessed by: 13 April 2020 http://knowledge.freshfields.com/en/Global/r/3923/cryptoassets_-_what_you_need_to_know.

[51] European Commission Directorate-General for Financial Stability, Financial Services and Capital Markets Union, Consultation document: On an EU framework for markets in crypto-assets, *European Commission* March 19, 2020: 13, Accessed by:April 17, 2020. https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/2019-crypto-assets-consultation-document_en.pdf

two main types: centralized and decentralized. "Centralized platforms, typically take control of client crypto-assets (e.g., they hold clients' private keys on their behalf or keep clients' crypto-assets in a single DLT account under the platform's own private key) and may also hold fiat money on their behalf." [52] "On centralized platforms, transaction settlement happens in the books of the platform and is not necessarily recorded on DLT. In those cases (off-chain settlement), confirmation that the transfer of ownership is complete lies with the platform only. Investors have therefore a material counterparty risk vis-à- vis the platform, e.g., in case it is malevolent or does not function properly. With decentralized platforms, investors remain in control of their crypto-assets and transaction settlement happens on DLT (on-chain), sometimes using so-called atomic swaps or other forms of smart contracts".[53] "Atomic swap is a type of the smart contract that is used for the automatic exchange of the crypto-assets that are based on two different independent blockchains." [54] Theoretically, both of that two types are available to be listed for the security tokens, however due to the novelty of such phenomena there is a lack of widespread examples of such exchanges. Moreover, due to the decentralized nature and taking into account the fact that current legislation was not initially designed for the trading of the tokens and cryptocurrencies numerous legal concerns in terms of compliance might be faced.

A distinctive feature of security tokens or how they are also called investment or equity tokens in comparison with the other types of crypto-assets, is the granting to their holders, certain scope economic or governmental rights. For example, it can be equity-ownership in the issuing entity, dividend rights, revenue rights, or rights to a part of the transaction costs, right to the fraction in the real asset, or right to the liquidation surpluses in the legal entities. [55] There are investment elements in a sense of promising the income in the future to their holders on the one hand and transferring the certain amount of risks from the issuer to the buyer on the other. In terms of their economic functions, these tokens are analogous to shares, bonds or derivatives that are issued by the legal entities.[56] Moreover, particular examples of security tokens may have exactly the same features as the above-mentioned financial instruments. At the same time, due to the different scope of the rights and purposes security tokens might not be considered as just a new

[52] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 15 Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[53] Ibid

[54] Luke Fitzpatrick, "A Complete Beginner's Guide To Atomic Swaps", *Forbes.Com*, 2020, Accessed by: April 5,2020 https://www.forbes.com/sites/lukefitzpatrick/2019/09/02/a-complete-beginners-guide-to-atomic-swaps/#1d5972256178.

[55] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?", *SSRN Electronic Journal*, (2019): 23, doi:10.2139/ssrn.3337514.

[56] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 12, Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

form of traditional securities such as bonds or shares. “Broadly speaking, four different types of security tokens can be distinguished: profit/revenue sharing tokens, utility-security hybrids, tokenized traditional assets and investment vehicle tokens.” [57]

- Profit/revenue sharing tokens. That category of tokens covers all tokens, the main purpose of which is to distribute revenues or profits amongst the owners of that tokens. “As such, these tokens can best be seen as contractual debts that are capable of being traded. The bearer of the tokens is automatically the recipient of whatever share of revenue or profits is distributed by the issuer.”[58] That type of security tokens “confer their owners a right to a portion of revenues or fees generated on or by the host platform. This could refer to on-chain transactions—whenever the network performs an action, a small fee is extracted and ultimately distributed to token holders. It could also refer to off-chain transactions, related to a specific initiative or specific product. Such revenues can be distributed on-chain periodically, akin to on-chain dividends or through a mechanism called buy-and-burn in which the proceeds are used to remove tokens from circulating supply to increase the perceived value of remaining tokens.”[59]

- Hybrid tokens is another dimension in the security tokes classification. Actually, due to the combination of features and functionality, that type of security tokens can be assigned to utility or payment types as well. However, taking into account the probability of being regulated by the Securities Law, and the type of rights that is granted by that token, it is necessary to consider it with other types of security tokens. Generally, it may take various forms, utility-security, payment-security or even combination all of them is a one example.[60] The owner of utility-security tokens has both the economic rights and rights to be entitled to the current or future utilization of the platform’s services i.e. consumption rights. In the case of payment-security hybrids, tokens bear payment and investment function simultaneously. With hybrid tokens, many various combinations of functions and purposes are possible.[61] But at the same time, the treatment of such tokens from the legal point of view can case number questions, especially in the context of applicable regulation in that case.

- Security tokens could also be designed to replicate exactly traditional financial instruments such as shares, bonds, derivatives. “That term is also known as ‘tokenized security’

[57] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?", *SSRN Electronic Journal*, (2019): 24, doi:10.2139/ssrn.3337514
[58] Ibid
[59] "Revenue-Sharing Tokens,".*Sci.Smithandcrown.Com*, Accessed 17 February 2020. https://sci.smithandcrown.com/glossary/revenue-sharing-token
[60] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?". *SSRN Electronic Journal*, (2019): 24 doi:10.2139/ssrn.3337514
[61]Ibid

and can be considered as a merger of the traditional securities and crypto token."[62] Basically, due to the possibility to implement into smart contracts any logic approximately all types of traditional conventional instruments can be implemented into tokens. So, as that type of security tokens initially has the form of traditional securities it is expected to have the features and keep the standards that are inherent to convectional securities.

- The fourth subcategory of security tokens is the investment fund tokens. "This term encompasses all scenarios where a fund or venture capital is tokenized. Practically speaking, an issuer sells a defined number of tokens and uses the funds to make investments. The return on these investments is subsequently distributed across all token holders. Such a tokenized venture capital fund, hedge fund or mutual fund allows for a vast increase in the liquidity of the fund for investors, as the tokens which represent a stake in the fund can be freely traded." [63] Moreover, there is number of cases when the token holders of such funds are entitled not only for the investment income but also, the voting rights of how the capital of the fund might be invested. The most known example in that case is Decetrilized Autonomus Organziation (DAO) - tokenized investment fund, with the sole purpose of investment to the crypto-assets. In that fund, the mechanism of the fundraising was implemented on the smart contracts and management were conducted through the voting by all token holders. The issuance of the investment fund tokens is popular among the projects which are purported to make investment on the low liquid sectors such real estate.

However, it should be noted that, the assignment of a token to one class or another may cause huge amount of difficulties due to the terminology that is not established as well as the existence of hybrid form of the tokes that may combine various features. Thus, the assessment of each token offering, and each project may be conducted on a case by case basis.

[62]Ibid
[63]Ibid: 27

2. LEGAL QUALIFICATION OF THE SECURITY TOKENS UNDER THE EU REGULATORY FRAMEWWORK

"Securities law is the field of law that covers transactions and other dealings in securities with the goal of the establishment and maintenance of a fair market for securities to protect investors. The laws to implement these goals can generally be divided into three broad categories: disclosure duties, restrictions on fraud and manipulation and restrictions on insider trading, mainly all law on one way or another covers these issues.[…] Disclosure duties are non-voluntary compliance regimes during the offering of a security, restrictions on fraud and manipulation introduce accountability for issuers and restrictions on insider trading further protects investors from information asymmetries." [64] "When a new technology enters regulated territories, it challenges the existing rules in their fitness and propriety to capture its specific risks and opens the question of whether amendments directly addressing that technology are necessary".[65]

Security tokens and the crypto assets per se, raise specific challenges for regulators and market participants since it is not clear how the current legislation might be applicable to those types of assets.[66] Moreover, due to the novelty of the phenomenon, there is a lack of experience and well-established practice concerning the tokens. "Where it does apply, there may be areas where crypto assets require potential interpretation or re-consideration of specific requirements to allow an effective application of regulations. Where regulation does not apply to crypto-assets and related activities, regulators need to consider whether it should, and if so how." [67] Moreover, the novelty of the market, its instability and rapid temps of development make that task for the regulators even more complicated in terms of proper and adequate reaction to the challenges that might be identified in the financial markets. On that scale, the question about the legal qualification of the security token, and the completeness of the terminology that is used by the EU Capital Markets Law. The relevance of it can be explained, on the grounds that any regulation of any issues starts from the qualifying of that issue, and establishment of the proper terminology for such qualification. In other words, the determination of the meanings is a starting point for regulating any phenomenon. In that case, the identification of security tokens in terms of the EU Law and the

[64] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?". *SSRN Electronic Journal*, (2019):28 doi:10.2139/ssrn.3337514.
[65] "Setting Up Crypto Funds In The European Union" *Jonesday* . Jonesday.Com, 2019 https://www.jonesday.com/en/insights/2019/07/setting-up-crypto-funds.
[66]European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 11, Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf
[67] Ibid

national legal orders of certain Member States will allow determining the scope of the legal acts and, as a result a possible regulatory issue to be considered.

2.1 The concept of Securities under EU Law and security tokens

The European Union has established a comprehensive set of rules on investment services and activities with the purpose of ensuring a reliable and rapid development of financial markets based on fairness, transparency, efficiency, and integration.[68] The first bundle of rules that have been adopted on the EU law led to the achievement of a higher level of financial markets competitiveness by creating a single market for the conduction of investment and rendering the financial services.[69] With the adoption of that legislation, it was managed to increase the degree of investors' protection in financial instruments. However, the financial crisis of 2008 clearly demonstrated the insufficiency of the regulatory framework with regard to investor protection and the need to ensure the elaboration of new trading platforms and activities ensuring the proper regulation.[70]

The first version of the Markets in financial instruments directive (Directive 2004/39/EC) was come into force from 31 January 2007 and become inoperative form 2 January 2018. That legal act was a cornerstone of the EU regulation of financial markets. Its provisions were concentrated on two main topics: governing the investment services in financial instruments that are rendering by banks and investment firms as well as the existence and activities of traditional stock exchanges and alternative trading venues. A number of benefits have been brought by that legal act such as: competition of the entities in terms of services, more choice and lower prices for investors, etc. However, its weaknesses have appeared only during the financial crisis. In June 2014, European Commission adopted new rules that was a revision of the MiFID framework. It consist of a directive - MIFID II and a regulation MiFIR.[71] The first legal act is aimed to enhance the regulations of the securities markets by dealing with the issues such as: investor protection, transparency and supervision on the financial markets, improving the conduct of business rules as well as conditions for competition in the trading and clearing of financial

[68] "Investment Services And Regulated Markets - Markets In Financial Instruments Directive (Mifid)", *European Commission - European Commission*, accessed 20 April 2020, https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-markets/securities-markets/investment-services-and-regulated-markets-markets-financial-instruments-directive-mifid_en.
[69] "Investment Services And Regulated Markets - Markets In Financial Instruments Directive (Mifid)", *European Commission - European Commission*, accessed 20 April 2020, https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-markets/securities-markets/investment-services-and-regulated-markets-markets-financial-instruments-directive-mifid_en
[70] ibid
[71] ibid

instruments.[72] The second one sets out the requirements on disclosure of the data regarding the various types of relevant data, removal of the barriers between trading venues and providers of clearing services and specific supervisory actions regarding financial instruments, and derivatives.[73]

Legal analysis of whether security tokens are within the scope of the regulations of the capital markets may be started for the identification of what is considered a traditional security according to the EU legislation. " From a systematic point of view, most of EU securities legislation is clustered around MiFID II providing essential material definitions such as "financial instrument", "transferable securities" "regulated market" and "multilateral trading facility" as well as "organized trading facility" in its Art. 4 and laying down basic common rules for the functioning of EU capital markets." [74]

"One of the key questions that token issuer must consider is whether its tokens could be classified as a financial instrument, such that the token issuance could potentially fall within the scope of financial markets regulation at either EU or member state level." [75] "Since the classification of tokens as securities triggers various consequences […] the distinction between securities tokens and other types of tokens is of great interest for many participants in the market."[76] According to the MIFID II, financial instrument are those instruments that are listed in the section C Appendix A. That list is quite broad and contains 11 positions, but all of them can be divided into two 4 main categories: transferable securities, money-market instruments units in collective investment undertakings and derivative instruments. [77] Obviously, the term: "transferable securities" draws attention the most for the reasons of similarity in the features with security tokens that have been described in the previous chapter. It is noteworthy that, other legal acts, might contain slightly different definition of securities. However, the key concept is reflected in MIFID II. Thus, the accent in the legal assessment with regard to the security tokens might be situated on that category of financial instruments. According to the MIFID II article 4 (44):

> "Transferable securities mean those classes of securities which are negotiable on the capital market, with the exception of instruments of payment, such as:

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[72] ibid
[73] ibid
[74] Philipp Hacker and Chris Thomale, "Crypto-Securities Regulation: ICOs, Token Sales And Cryptocurrencies Under EU Financial Law", *SSRN Electronic Journal*, 2017: 16, doi:10.2139/ssrn.3075820.
[75] "Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)",Thinkblocktank.Org, 2019:16 http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.
[76] Ibid
[77] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU. EUR-Lex, Accessed: April 15, 2020 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0065

(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 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."[78]

Accordingly, it can be concluded that security token to coincide with that definition should be within the following concepts: standardization, transferability, be negotiable on the capital markets, not to be an instrument of payment. These 4 peculiarities are decisive because the legal analysis of whether the security tokens to be qualified as transferable securities should correspond to them.

In order to be negotiable, any security at least should be able to be characterized as a transferable.[79] The meaning of that peculiarity is ability of the units to be assigned to another person. Their form, whether it is registered or documented by any certificates has no significance in that case.[80] In general, the actual trading of the security on the secondary market is not relevant for the assessment. From the legal point of view the mere possibility of the security to be traded allows to conclude that it is transferable[81] Approximately all tokens are compliant with the requirement to be tradable since blockchain was initially purported to switch the ownership of the digital representations of the value.[82] At the same time, the transferability of the tokens can be limited on a contractual basis. Moreover, such restraints can be embodied in a technical exclusion of other persons than the initial investors to exercise any rights under the token.[83] In that case, assessment of the token for being transferable security may be based on the term of such limitation. If the change on the owner is not possible in any consequence, it may not be considered as transferable security due to the incapability to be assigned to another person. Contrary to that, if the switch of the ownership is possible but temporarily restricted, for example during the lock-up

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[78] Ibid

[79] Philipp Maume and Mathias Fromberger, "Regulation Of Initial Coin Offerings: Reconciling US And EU Securities Laws", *SSRN Electronic Journal*, (2018): 30, doi:10.2139/ssrn.3200037

[80] "Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: 18 http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[81] Laurent Collet, Simon Ramos, Thibault Chollet, Patrick Laurent, Pascal Martino, and Benoit Sauvage. *Www2.Deloitte.Com*, 2019:8, Accessed by: April 15, 2020, https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-token-assets-securities-tomorrow.pdf.

[82] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?", *SSRN Electronic Journal*, 2019: 51, doi:10.2139/ssrn.3337514

[83] Philipp Hacker and Chris Thomale, "Crypto-Securities Regulation: Icos, Token Sales And Cryptocurrencies Under EU Financial Law", *SSRN Electronic Journal*, (2017):20, doi:10.2139/ssrn.3075820.

period, that token may be considered as such that fulfill the criteria of transferability in a context of transferable securities.[84]

It is evident from the wording that the definition of the transferable securities is based on the transfer of units in the secondary market. This characteristic is also reflected in the phrase: "be negotiable in the capital markets." [85] While the criterium of transferability is referred to the switching of securities ownership, "negotiability" concerns the simplicity of doing so.[86] Generally, if the security is able to be traded or admitted to trading on the Regulated Market (RM) or Multilateral Trading Facility (MTF) or Organized Trading Facility (OTF) in the meanings of MIFID II, it might be deemed negotiable. Importantly, like in a case with the transferability, the question about actuality has no relevance, and the mere possibility to be traded is enough to fulfill that criterium.[87] With respect to the security tokens, it can be stated that the existence of so-called crypto-exchanges, where the owners are able to trade their tokens can be considered as the doubtless evidence of their negotiability. Obviously, it can be argued that not all such exchanges might be qualified as RM, MTF, or OTF. Still in case of security tokens, it is irrelevant because there is no question about the actual trading but about the possibility of it.

To some extent such an approach can be conferred by the results of ESMA's survey, which were addressed to the Nacional Competent Authorities (NCA). In accordance to it: "Most NCAs (21 to 25) considered the majority of the sample crypto assets as 'negotiable', generally because they are capable of being traded. The abstract possibility of being traded is considered sufficient, even if there is not yet a specific market for the product or even if there is a temporary lock-up" [88] Nevertheless, the research considered only proposed samples, it proved negotiability of the tokens as a class of the assets, at least in the opinion of the mentioned 25 NCA.

However, the criteria of negotiability can be considered in a broader sense. Moreover, ESMA's research pointed out about capability of being traded for the tokens, but it was not stated anything about Regulated Markets or OTF. At the same time, the article 3 (44) of MIFID II, is referred to phrase "negotiable on the capital market" Hence, the interpretation of negotiability might not be limited by RM or MTF or OTF and may be considered within the scope of the term

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[84] Ibid

[85] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU. EUR-Lex, Accessed: April 15, 2020 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0065

[86] Laurent Collet, Simon Ramos, Thibault Chollet, Patrick Laurent, Pascal Martino, and Benoit Sauvage. *Www2.Deloitte.Com*, 2019: 9 https://www2.deloitte.com/content/dam/Deloitte/lu/Documents/technology/lu-token-assets-securities-tomorrow.pdf.

[87] "Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: 19, Accessed by April 13, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf

[88] European Securities and Markets Authority, Annex 1 "Legal qualification of crypto-assets – survey to NCAs" ESMA50-157-1384 January 2019: 16, Accessed by: April 15, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1384_annex.pdf

"capital market". Similarly, to the definition of "securities", the term "capital markets" as not defined under EU legal acts.[89] It is considered, that this term should be interpreted in a broadest sense and implies any situation of meeting the selling and buying interests in securities.[90] With such interpretation the degree of uncertainty is reduced but only to some extent since it is not clear in what context the term "security" is meant.[91] Nevertheless, following that approach, the constitutive feature of the term "capital market" is a trading of securities. And obviously, such trading should be distinguished from the trading of other goods and services. Currently, only a small number of the crypto exchanges clearly distinguish between trading security tokens and other types of crypto assets. Basically, there is a lot of examples when security tokens and utility tokens or cryptocurrencies are traded simultaneously on such crypto-exchanges, but all of them are supposed to have a different legal status.[92] As an effect it might cause confusion around the question about the depth of the term capital markets. Applying it to the crypto assets, it is unclear whether different types of such assets with the different regulatory framework constitute a "capital market" or not.[93] At the same time, ESMA in their Advice on Advice on Initial coin offering and Crypto-Assets stated that "where crypto-assets qualify as financial instruments, platforms trading crypto-assets with a central order book and/or matching orders under other trading models are likely to qualify as multilateral systems and should therefore either operate under Title III of MIFID II as Regulated Markets (RMs) or under Title II of MIFID II as Multilateral Trading Facilities (MTFs) or Organised Trading Facilities."[94] Basically, that statement clarifies the confusion with regard to the capital market and security tokens. However, the question of combining the different interments with the different regulations is still standing.

The other characteristic of the transferable securities is a certain degree of standardization, which basically prescribes fungibility of such an instrument. The requirement of standardization deviates from the MIFID II definition of transferable securities due to the expression "those classes of securities".[95] It implies that the issued units must have certain characteristics so that they can be considered as a class. EU Law does define the meaning of that

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[89] Philipp Maume, and Mathias Fromberger. "Regulation Of Initial Coin Offerings: Reconciling US And EU Securities Laws". *SSRN Electronic Journal*, (2018): 28-29, doi:10.2139/ssrn.3200037

[90]European Commission, Your question on MIFID, http://ec.europa.eu/internal_market/securities/docs/isd/questions/questions_en.pdf [https://perma.cc/7UDR- WJ59].

[91]Philipp Maume, and Mathias Fromberger. "Regulation Of Initial Coin Offerings: Reconciling US And EU Securities Laws", *SSRN Electronic Journal*, (2018): 28-29, doi:10.2139/ssrn.3200037

[92] "Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: 20, Accessed by: April 13, 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[93] Ibid

[94] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 25, Accessed by: April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[95] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?", *SSRN Electronic Journal*, 2019: 53, doi:10.2139/ssrn.3337514

term. Moreover, according to the ESMA survey addressed to the NCA, "Independently of whether the term 'class' has been introduced at national level, NCAs reported a similar interpretation, namely to form a class, units (i.e. crypto-assets in the cases presented) need to be interchangeable (some referred to the terms 'fungible/replicable with one another' or 'identical'), issued by the same issuer, show similarities and give access to the same (equal) rights to the same group of investors." Also, it should be noted that standardization criteria could be considered as a sub-criterion to negotiability on the capital markets.[96] It can be argued that different types of securities may grant different rights to investors. For example, shares may be with or without voting rights, common or preferential, redeemable and cumulative etc. And even depending on the issuer, the scope of the rights may vary within these types. However, the peculiarities of these types of the securities do not make them out of the transferable securities scope. In fact, standardization does not prescribe all units that are available in the markets to share exactly the same characteristic.[97] In case of traditional securities, criteria of standardization referees to the requirement of fungibility of the whole unites issued by single issuer during one sale. In other words, standardization prescribes to be identical for the units on the level of issuer but not on the level of the whole industry.

Almost all issued tokens fulfill the criteria of standardization since admittance to markets is impossible without it. In fact, any token that is capable of being traded on a crypto exchange is standardized by default.[98] Moreover, it is highly complicated to produce the tokens that will be not similar between each other, and from the technological point of view. The mere fact that the vast majority of the tokens notwithstanding of their type is traded on the crypto exchanges can be considered as a testimony of their standardization. Theoretically, it is possible to issue via the smart contract the specialized version of security tokens with the certain rights that will be different in comparison with the other tokes. However, even in that case, that tokens are collated with others like common and preferential shares in the company. That two types of tokens are capable of being divided into groups, but within its fractions each type will be fungible. Thus, it can be concluded that security tokens fulfill that requirement in terms of qualification as transferable securities according to the MIFID II regime.

The last characteristic of the security tokens to fulfill to be within the definition of the transferable securities is not to be an instrument of payment. The issue that might be considered is that what features should the token have and under what circumstances will it be regarded as

[96] Ibid
[97] Philipp Maume, and Mathias Fromberger. "Regulation Of Initial Coin Offerings: Reconciling US And EU Securities Laws", *SSRN Electronic Journal*, (2018): 37-38, doi:10.2139/ssrn.3200037
[98] Maas Thijs, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?". *SSRN Electronic Journal*, (2019):53 doi:10.2139/ssrn.3337514.

payment instrument? [99] According to the EU directive 2015/2366 On payment services in the internal market, the term "payment instrument means a personalised device(s) and/or set of procedures agreed between the payment service user and the payment service provider and used in order to initiate a payment order." [100] However, the application of that definition seems to be questionable in the context of the transferable securities since it is referring to "personalized device" which implies the other meaning than it would be purported for the securities or other financial instruments. That definition is more relevant to the conventional mediums of payment such as cards: credit transfers, direct debits, and e-money that are non-cash payment instruments via the which the users of payment systems transfer their funds between accounts at banks or other financial institutions.[101] At the same time, in the Questions and Answers that have been issued concerning the first version of the MIFID, the European Commission determined the meaning of payment instruments in terms capital markets, as securities which are used only for the purposes of payment and not for investment.[102] Notwithstanding that it was stated regarding the legislation that is currently inoperative, such definition implies the general understanding of the payment instruments concept in terms of interpretation of the transferable securities. Hence, it can be concluded that security tokens may not be qualified as an instrument of payment in terms of MIFID II due to the use by market participants for the investment purposes. A further issue that might be faced when the token belongs to the hybrid type and has several assignments. For example, there can be a situation when the token is exercising payment and investment functions simultaneously. In that case, the approach mentioned above excludes securities that are the embodiment of the investment and payment purposes from the scope of the term "payment instruments" since it requires to have the payment purposes solely. Thus, hybrid type of security tokens may satisfy the criteria not be a payment instrument in terms of transferable securities, because they contain an investment component as well.

However, the question about the sufficiency of having only those features by the tokens security tokens in order to be qualified as transferable securities might appear. If the legal assessment was conducted in light of examples that are used in the definition of the transferable securities, it could be argued, that the majority of the security tokens coincide with them only to

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[99] "Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019:20, Accessed by: April 13, 2020http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[100] Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC, EUR-Lex, Accessed:15 April 2020. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L2366

[101] "Payment Instruments". European Central Bank. https://www.ecb.europa.eu/paym/pol/activ/instr/html/index.en.html.

[102] European Commission, Your question on MIFID, http://ec.europa.eu/internal_market/securities/docs/isd/questions/questions_en.pdf [https://perma.cc/7UDR- WJ59].

some extent. It is not surprisal, that security tokens are not traditional shares nor bonds that are issued by the legal entities. Security tokens may not obligatory prescribe the ownership at the company or have the date of maturity and be repaid like a bond. Generally, share in the legal entity specifies equity rights, rights to dividends, governance rights, and right for the liquidation surpluses. Hence the embodiment of such rights in the token signifies that it should be qualified as security.[103] The other question is whether it is sufficient for the security token to have one of such features to be deemed as security or, it is necessary to have all mentioned rights simultaneously? Obviously, assessment of the particular examples should be conducted on the case by case basis. However, the more of these features token has, the stronger is its similarity with the traditional securities. Also, how it was pointed out above, the list of the instruments that is stated in the definition of transferable securities prescribes and has exemplary nature. Its main purpose is to show what legislator had in mind during the drafting of that legal norm. Thus, from a functional perspective, tokens must at least be comparable to these archetypes of securities in order to be within the securities regulation.[104]

The definition of the transferable securities is not limited by the instruments that resemble traditional shares and bonds. It prescribes derivatives as well. It also includes the phrase: "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"[105] Basically, that part of the definition is creating the background for the qualification of the security tokens as derivatives. Notwithstanding, it is quite extensive, the question about belonging of security tokens to that type of instruments might not arise. When the tokens have characteristics that are described in that definition, they are securities by default. As a result, derivative contracts that are embodied in tokens would be classified as transferable security even if the token itself has no investment inclinations. [106]

Hence, to consolidate conducted analysis it should be noted that the most relevant definition that can be applied to the security tokens under EU law is transferable securities. It is established by the regulatory framework. A security token, in order to be considered as transferable securities in should have the following features: transferability, standardization, negotiability on

[103] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?"ϭ *SSRN Electronic Journal*, (2019):49 doi:10.2139/ssrn.3337514.
[104] Philipp Hacker and Chris Thomale, "Crypto-Securities Regulation: Icos, Token Sales And Cryptocurrencies Under EU Financial Law", *SSRN Electronic Journal*, (2017), 25, doi:10.2139/ssrn.3075820.
[105] Directive 2014/65/EU of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU. EUR-Lex, Accessed: April 15, 2020 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014L0065
[106] Philipp Maume, and Mathias Fromberger, "Regulation Of Initial Coin Offerings: Reconciling US And EU Securities Laws", *SSRN Electronic Journal*, (2018): 41, doi:10.2139/ssrn.3200037.

capital markets. At the same time, it should not be used only as a payment instrument without purpose to commit an investment. The list of securities that is contained in MIFID II has an exemplary character, and it is enough for the security tokens to be comparable with that examples stated there in order to be classified as transferable security.

2.2 EU Member States legislation and security tokens

2.2.1 France

France is a pioneer in integrating blockchain technologies into the national legal framework. French legislators and regulatory bodies have expressly demonstrated their openness to the ICOs and FinTech innovations. In order to tackle the diversity and complexity of ICOs, this particular legislation (so-called "Pacte Law"), which prioritizes a "substance over form" approach in the qualification and treatment of tokens have been adopted.[107] Moreover, France is one of the few Member States where the regulatory authorities have expressed their vision concerning the security tokens.

To answer the question of whether tokens can be qualified as security in France, the definition that is applicable to the traditional securities should be considered. Under French law, the key term on that regard is "financial securities". According to the article L. 211-1(II) of the French Monetary and Financial Code here are three main cases of financial securities can be defined: equity securities issued by joint-stock companies, debt securities, with the exception of bills of exchange and interest-bearing notes and units or shares in undertakings for collective investment. Noteworthy that, this definition includes transferable securities as well.[108] Thus, the emphasis of the legal assessment should be contracted on it. Also, the French legislation prescribes an opportunity for the financial instruments to be issued and functioning on shared electronic recording devices.[109] Basically, that step added a certainty with respect to the considering of the securities tokens as a security.

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[107] "Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: Part C p. 29 Accessed by: April 13,2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[108] "Code Monétaire Et Financier ", Legifrance*, Legifrance.Gouv.Fr*, Accessed by: 7 May 2020. https://www.legifrance.gouv.fr/affichCode.do?cidTexte=LEGITEXT000006072026.

[109] "Ordonnance N° 2017-1674 Du 8 Décembre 2017 Relative À L'utilisation D'un Dispositif D'enregistrement Électronique Partagé Pour La Représentation Et La Transmission De Titres Financiers | Legifrance". Legifrance.Gouv.Fr, Accessed 5 May 2020, https://www.legifrance.gouv.fr/affichTexte.do?cidTexte=JORFTEXT000036171908.

"Equity securities grant their holders political rights e.g. voting and information rights and financial rights e.g. rights to dividends and liquidation bonuses, usually determined based on the ownership interest realized in the form of share capital in a joint-stock company."[110] According to the Autorité des Marchés Financiers (AMF) - French Nacional Competent Authority , "tokens may be legally classed as equity securities if they bestow the same economic and governance rights as those traditionally attached to shares or preference shares." [111] In other words, token in order to be a security should provide to its holder the access to the capital of the company that might be ensured by one of such categories of the rights.[112]

Also, on 19 of February 2020 the AMF has issued a separate guideline that concerned STOs and the legal issues that may be faced during the lifecycle of the tokens[113]. Thought, according to that document, French NCA confirms the possibility for the security tokens to be qualified as transferable securities under the MIFID II.[114] At the same time, it was stated that "the question of the classification of securities issued via STOs, in relation to the concepts of equity securities and debt securities could in some cases, to prove complex and lead the AMF to give a completely novel decision on the legal meanders of these concepts, which are sometimes imprecise." [115]

Consequently, according to the opinion of the French regulator, tokens to be treated as finical securities should be granting the same or comparable rights to those awarded by financial securities, for example, financial or governmental rights. Such an approach with regard to the implementation and treatment of the transferable securities accords with the legal framework that is established on the EU level. In particular, the requirement that is prescribed to the tokens has financial and governmental rights, may be compliant with the examples and logic that is implied by the MIFID II in this regard. At the same time, how it was noted by the AMF, some examples of the security tokens might arise some confusion when it comes to more deep legal classification.[116]

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[110] Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: Part C p. 31, Accessed by: April 13,2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[111] Authorité des Marché Financiers, Duisscusion paper on initial coin offerings (ICOs), 26 October 2017, Accessed by March 25, 2020 https://www.amf-france.org/sites/default/files/contenu_simple/consultations_publiques/AMF%20public%20consultation%20on%20Initial%20Coin%20Offerings%20%28ICOs%29.pdf

[112] Ibid

[113] Authorité des Marché Financiers, Review and analysis of the application of financial regulations to security tokens, February 26, 2020:1-2. Accessed by March 25, 2020 https://www.amf-france.org/sites/default/files/2020-03/legal-analysis-security-tokens-amf-en_1.pdf

[114] Ibid

[115] Ibid:10

[116] Authorité des Marché Financiers, Review and analysis of the application of financial regulations to security tokens, February 26, 2020: 1-2 Accessed by March 25, 2020 https://www.amf-france.org/sites/default/files/2020-03/legal-analysis-security-tokens-amf-en_1.pdf

2.2.2 Germany

On the scale of the Security token offering, Germany is known as one of the first among EU-Member States countries where the Nacional competent authority - BaFIN has approved the conduction of the Security token offering. The project is called Bitbond. Essentially it is a platform of lending for small and medium enterprises. The holders of the Bitbond tokens are entitled to the 1% payment quarterly and receive a variable coupon paid out once per year.[117]

Under German capital markets law, the term "securities" is defined in several statutory laws. The "German Securities Trading Act", the "German Securities Prospectus Act", the German Securities Accounts Act" contain a definition of securities.[118] Essentially, there is no tremendous difference in the determination of the security in these acts. All of them are based on the definition that is established by the MIFID II regime and both of the, determined several cases of securities such as shares or comparable to the shares, debt-based securities and derivatives.

In accordance with the BaFIN - German National Competent Authority, security tokens must correspond to the several criteria in order to be within the securities regulation. An advisory letter that is issued by that NCA and concerns the classification of the tokens as financial instruments prescribes that to be deemed as security within the meaning of section 2 (1) of the German Securities Trading Act or Article 4(1)(44) of MiFID II, firstly token has to be transferable, and negotiable on the financial market or capital market. Secondly, it must not meet the criteria for an instrument of payment, and it shall be granted a certain right to its holder. For example, it can be an embodiment of either shareholder rights or creditor claims or claims comparable to shareholder rights or creditor claims.[119]

However, the interpretation of these criteria was made in the other document issued by the supervisory authority and with respect to German Securities Prospectus Act - Guidance Notice Second advisory letter on prospectus and authorization requirements in connection with the issuance of crypto tokens. In that document, it is expressly stated that this classification and explanation concern only German Securities Prospectus Act, but the use of still be relevant to

[117] "SECURITIES PROSPECTUS Of BITBOND FINANCE GMBH, BERLIN". Bitbondsto.Com, 2019, Accessed by: April, 13 2020, https://www.bitbondsto.com/files/bitbond-sto-prospectus.pdf

[118] Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: Part C p. 48 Accessed by: April, 13 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[119] BaFin Federal Supervisory Authority, Advisory letter on Supervisory classification of tokens or cryptocurrencies underlying "initial coin offerings" (ICOs) as financial instruments in the field of securities supervision. Ref. no.: WA 11-QB 4100-2017/0010, March 28, 2018, Accessed by March 25, 2020. https://www.bafin.de/SharedDocs/Downloads/EN/Merkblatt/WA/dl_hinweisschreiben_einordnung_ICOs_en.html

obtain the general concept and logic that is implying by the German Law.[120] In accordance with that guidance the criteria of transferability can be assumed as satisfied if the token can be transferred between the users without any changes in its legal or technical content.[121] "Negotiability in respect of tokens describes a minimum level of standardization, and hence the properties of the tokens featuring the same rights. The tokens must be comparable with each other in the sense of a "class". In addition, online crypto trading platforms may meet the definition of a financial market."[122] With regard to criteria of similarity of the rights that are prescribed by the shares or debt securities, German NCA has stated that: "token embodies such rights in any event if the token conveys to its holder an equity interest comparable to that of a shareholder or an interest in debt comparable to a bondholder." To be compliment with that criteria, in case of debt securities, token, should be not only transferable and negotiable but also should have an investment-like content. The satisfaction of that criteria can be assumed if there is repayment of investments when the token expires or periodic payments pegged to the holding of the token.[123] In contrast to that, membership rights shall be faced if the token grants the rights to its holder that are comparable with dividend payments, if such payment takes the form of the additional tokens that criteria also should be considered as met.[124] With respect to the governance rights, if the token can be used to exercise an influence on the other legal entities, it might be considered as such that constitutes security.[125]

Also, in the light of the legal analysis, it is worth to note that, pursuing the German legislation and in coincidence with the approach of the BaFin concerning its interpretation, token in order to be considered as transferable security may not have the form of the certificates or other paper-based form in an mandatory order.[126] According to the option of the German supervisory authority, it is sufficient if the holder of the token can be documented, for example by means of distributed ledger or blockchain technology, or through comparable technologies.[127]

However, the very generic statement by BaFin that one of the prerequisites for security is the embodiment of rights in the token may lead to some concerns. The question raised was if

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[120] BaFin Federal Supervisory Authority, Guidance Notice Second advisory letter on prospectus and authorisation requirements in connection with the issuance of crypto tokens, Ref.: WA 51-Wp 7100-2019/0011 and IF 1-AZB 1505-2019/0003, November 22, 2019 Accessed by March 25, 2020 https://www.bafin.de/SharedDocs/Downloads/EN/Merkblatt/WA/dl_wa_merkblatt_ICOs_en.html

[121] Ibid

[122] BaFin Federal Supervisory Authority, Guidance Notice Second advisory letter on prospectus and authorisation requirements in connection with the issuance of crypto tokens, Ref.: WA 51-Wp 7100-2019/0011 and IF 1-AZB 1505-2019/0003, November 22, 2019:7, Accessed by March 25, 2020 https://www.bafin.de/SharedDocs/Downloads/EN/Merkblatt/WA/dl_wa_merkblatt_ICOs_en.html

[123] Ibid

[124] Ibid

[125] Ibid

[126] Ibid

[127] Ibid

such criteria for defining securities were to be interpreted in a way that any contractual claims bearing by the token would trigger the application of securities regulation. As a consequence, such interpretation can cause the situation when the category of utility tokens will be included in the scope of German Supervisory Law.[128] At the same time, it can be argued, German Regulator defines a token as "an embodiment of the rights." However, it gives examples of such rights: either of shareholder rights or rights under the law of obligations or claims comparable with rights under the law of obligations or claims under the law of obligations.[129] Hence, it may signalize about the direction and the logic that was implied. In other words, the concept of utility tokens cannot be collated with these examples. Such definition is purported to have with its scope tokens that comprises the investment component but those which comprises utility function only. Also, it is noteworthy, BaFin has stated that: "there is no general answer to the question of whether a token meets these criteria; a case-by-case assessment based on the circumstances of the respective individual case is always required. In the assessment, the specific structure of the rights embodied in the token is the decisive factor."[130]

Hence, German legislation in a full manner has coherently following the framework that has been established by the MIFID II, particularly concerning the definition and identification of the scope of the transferable securities. The treatment of the security tokens by the German supervisory authority in light of determination of securities legislation application is based on the same criteria such as transferability, negotiability on the capital markets, and not being the instruments of payment. Moreover, an approach that token in order to be security should be the embodiment of the rights comparable with the shares or with the debt-based securities, also coincide with the definition of that is established by the EU legislation.

2.2.3 Estonia

It is not surprising that Estonia is one of the pioneer countries with respect to the implementation of new technologies and innovations. For example, Estonia was one of the EU Member states who has established a regulatory framework for the cryptocurrencies exchange and

[128] Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)", Thinkblocktank.Org, 2019: Part C p. 54, April, 13 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[129] BaFin Federal Supervisory Authority, Guidance Notice Second advisory letter on prospectus and authorisation requirements in connection with the issuance of crypto tokens, Ref.: WA 51-Wp 7100-2019/0011 and IF 1-AZB 1505-2019/0003, November 22, 2019: 6-7, Accessed by: March 25, 2020 https://www.bafin.de/SharedDocs/Downloads/EN/Merkblatt/WA/dl_wa_merkblatt_ICOs_en.html

[130] BaFin Federal Supervisory Authority, Advisory letter on Supervisory classification of tokens or cryptocurrencies underlying "initial coin offerings" (ICOs) as financial instruments in the field of securities supervision. Ref. no.: WA 11-QB 4100-2017/0010, March 28, 2018, Accessed by March: 25, 2020. https://www.bafin.de/SharedDocs/Downloads/EN/Merkblatt/WA/dl_hinweisschreiben_einordnung_ICOs_en.html

license requirements for the crypto-wallet service providers. Hence, it is necessary to consider that country in terms of the Security token offerings legal treatment, and capability of security tokens to trigger the securities regulations.

According to the opinion of Estonian Financial Supervisory Authority (EFSA) - National Competent Authority that is responsible for the supervision on the capital markets, tokens depending on their structure, might be considered as securities according to the definition outlined in the current Securities Market Act (SMA) as well as in the Law of Obligations Act (LOA). In assessing whether or not securities laws apply, the EFSA states that "substance should be considered over form." [131] This means that the electronic form of the tokens is not an obstacle in terms of qualification them as securities.

At the same time, article 2 of Securities Market Act prescribes a list of financial instruments among which are: "share or other similar tradable right, bond, convertible security or other tradable debt obligation issued which is not a money market instrument, a subscription right or other tradable right granting the right to acquire securities, an investment fund unit, a money market instrument, a derivative security or a derivative contract and tradable depositary receipts".[132] Also it states that "each of the above mentioned proprietary right or obligation or contract transferred on the basis of at least unilateral expression of will is a security, even without a document being issued therefor."[133] It should be noted that, in comparison with MIFID II definition of transferable securities, Estonian legislator adopted a broader concept of the term "security" and included in its scope financial instruments that are not transferable securities according to the directive, such as money market instruments or investment fund units.

In opinion of the EFSA, "only those tokens are likely to be qualified as securities within the meaning of Securities Market Act, which give investors certain rights in the issuer company or whose value is tied to the future profits or success of a business"[134]. In other words, tokens must provide their holders with the rights that are comparable to those that are prescribed by the securities to their owners. For example, it might be voting rights or rights to be entitled to the profit distribution, or in case of insolvency, right for the liquidation surpluses. Therefore, the offering of such tokens may trigger the application of the rules that are prescribed for the securities.

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[131] "The Legal Framework Of Initial Coin Offering In Estonia | FSA", Fi.Ee, 2019, Accessed by March 25, 2020 https://www.fi.ee/en/investment/aktuaalsed-teemad-investeerimises/virtuaalraha-ico/legal-framework-initial-coin-offering-estonia.

[132] "Securities Market Act – Riigi Teataja". Riigiteataja.Ee, 2002. https://www.riigiteataja.ee/en/eli/506062014002/consolide.

[133] Ibid

[134] "The Legal Framework Of Initial Coin Offering In Estonia | FSA", Fi.Ee, 2019, Accessed by March 25, 2020 https://www.fi.ee/en/investment/aktuaalsed-teemad-investeerimises/virtuaalraha-ico/legal-framework-initial-coin-offering-estonia.

Also, according to the above-mentioned definition of the securities provided by Estonian legislation, all categories of securities listed there are tradable which means that the same requirement is possessed to the tokens as well. Neither Securities Market Act, nor opinions or documents of the Estonian NCA does not contain the characterization of that requirement. However, it should be noted that most Estonian legislation is based on the EU law, hence the interpretation of the tradability requirement with regard to the securities and as an effect of the tokens may be conducted according to the concept financial instruments that is established by MIFID II.

To conclude, the Estonian NCA has adopted the position that "although a new technology is involved, and what is being sold is referred to as a token instead of a share or equity, a token may still qualify as a security as set forth in the Estonian legislation".[135] So in order to be qualified as security, the token should be capable of being collated with one of the securities' categories that are listed in Estonian Securities Market Act, as well as, be able to be traded on the capital markets like shares or bonds, etc. Moreover, the Estonian approach legislative allows for the securities to be in electronic form. Hence, Estonian legislation is within the concept that is established by the MIFID II regime, in particular with respect to the treatment of security tokens.

2.2.4 Lithuania

On 19 October 2019, the National Competent Authority of Lithuanian in the sphere of financial markets supervision - the Bank of Lithuania has approved and issued the document that is called Guidelines on Security Token Offerings. Basically, that paper contains a consolidated vision of the regulator regarding the legal classification of security tokens among the other type of crypto-assets and description of the legal aspects that can be faced during the conduction of the STO in Lithuania.[136] Lithuanian NCA was the first regulator among Member States NCAs who precisely express its position concerning to the legal framework that is applicable to the security tokens.[137] Probably by such a step Lithuanian authority strive to create a friendly regulatory climate in FinTech and in the industry of investments in general.

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[135] "The Legal Framework Of Initial Coin Offering In Estonia | FSA", Fi.Ee, 2019, Accessed by March 25, 2020 https://www.fi.ee/en/investment/aktuaalsed-teemad-investeerimises/virtuaalraha-ico/legal-framework-initial-coin-offering-estonia.

[136] Bank of Lithuania, "Guidelines on Security Tokens Offering", Resolution No 03-188 October 17, 2019 Accessed by March 30, 2020, https://www.lb.lt/uploads/documents/docs/23488_be8ce9606ecb203bf8a9a4bde09ac399.pdf

[137] Authorité des Marché Financiers, Review and analysis of the application of financial regulations to security tokens, February 26, 2020: 1, Accessed by March 25, 2020 https://www.amf-france.org/sites/default/files/2020-03/legal-analysis-security-tokens-amf-en_1.pdf

Bank of Lithuania is of the opinion that those tokens that meet the relevant conditions should be treated as equivalent to financial instruments and regulated as such since regulation should be technology neutral.[138] It means that the application of financial markets legislation does not depend on the actual use of any technological arrangements and should be applicable, respectively. Tokens that are qualified as equivalent to financial instruments should be treated as a financial instrument in the light of the existing relevant financial markets legislation despite technology applied to such tokens. Equivalence to financial instruments implies that tokens should comply with the EU and national regulations.[139] So, like the Estonian NCA, Bank of Lithuania follows a substance over form approach with respect to the qualification of tokens.[140] Thus, it can be concluded that securities may not always be paper-based, but can be embodied in the form of tokens.

With regard to the terms and definitions, the Lithuanian legislator supposed approach that has been established by the MIFID II. Thus, article 3 of the Law on markets in financial instruments constitutes approximately the same list of financial interments and, with some degree of rephrasing, replicates the term "transferable securities" contained in the EU law.[141] So, security tokens in order to deemed as transferable security within Article 3 (52) of the Law on Markets in Financial Instruments should correlate with one of the following categories: "

(a) circulating in the capital market shares in companies and other securities equivalent to shares in companies, partnerships, and other entities, as well as depository receipts representing shares.

(b) circulating in the capital market bonds and other forms of non-equity securities, including depositary receipts in respect of non-equity securities.

(c) circulating in the capital market other securities conferring the right to acquire or transfer the transferable securities or underlying the cash-settlements determined having regard to the transferable securities, currencies or exchange rates, interest rates, yield of securities, stock exchange commodities, or other indices or instruments."[142]

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[138] Bank of Lithuania, "Guidelines on Security Tokens Offering", Resolution No 03-188 October 17, 2019: 7 Accessed by March 30, 2020.
https://www.lb.lt/uploads/documents/docs/23488_be8ce9606ecb203bf8a9a4bde09ac399.pdf
[139] Bank of Lithuania, "Guidelines on Security Tokens Offering", Resolution No 03-188 October 17, 2019: 7 Accessed by March 30, 2020.
https://www.lb.lt/uploads/documents/docs/23488_be8ce9606ecb203bf8a9a4bde09ac399.pdf
[140] Ibid
[141] "Republic of Lithuania Law on Markets in Financial Instruments".No X-1024, *Official Gazette, 2007, No 17-627, ID code 1071010ISTA00X-1024*, Recast with effect from 15-06-2018:
No XI-1672, 05-06-2018, *RLA, 01-06-2018*, ID code 2018-09854.Accessed by: April 15, 2020
https://www.lb.lt/en/legislation.
[142] Ibid

In opinion of the Lithuanian NCA to satisfy the point (a) of that article and likely to be qualified as transferable securities, tokens should provide their holders with similar or equivalent rights to shares. For example, such rights can entitle the token holder for influence on the management process in the company. Also, the similarity to the shares may be expressed in the providence of the tokens' owner with access to a part of company profits or the distribution of liquidation surpluses etc.[143] When it comes to the qualification of the tokens as debt base security Lithuanian NCA outlines that "if tokens create and represent debt owed by the issuer to the tokens holder, such tokens may be considered a debenture and fall within the term of transferable securities".[144]

As in MIFID II and according to the Lithuanian legislation, token to be qualified as transferable security, despite the type, should be negotiable on the capital markets. Lithuanian legal framework does determine what negotiability means. To the opinion of the Lithuanian NCA "the token should be considered as negotiable generally because it is capable of being transferred or traded on the capital markets." [145] Also, Bank of Lithuania outlines that "the abstract possibility of being transferred or traded on the capital market is considered sufficient, even if there is not yet a specific market for the product or even if there is a temporary lock-up." [146] Such potion of the Lithuanian NCA with regard to the interpretation of the negotiability is in the same line with EU law-based approach.

Hence, taking into account the above analyzed information, it can be concluded that Lithuanian legislator in terms of securities determination, has supported the approach of MIFID II. Exactly the same classification of financial instruments and terminology with respect to the definition of the securities, i.e. transferable securities have been transported to the Law on Markets in Financial Instruments. With respect to the interpretation of that legal framework, it can be concluded that Lithuanian NCA supported the general EU approach. A determination whether token contains security is not based on the form but on the prescribed by the token rights and obligations and its correlation with the concepts of transferable securities that are defined by the legislation.

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[143] Bank of Lithuania, "Guidelines on Security Tokens Offering", Resolution No 03-188 October 17, 2019: 9 Accessed by March 30, 2020.
https://www.lb.lt/uploads/documents/docs/23488_be8ce9606ecb203bf8a9a4bde09ac399.pdf
[144] Bank of Lithuania, "Guidelines on Security Tokens Offering", Resolution No 03-188 October 17, 2019: 9 Accessed by March 30, 2020.
https://www.lb.lt/uploads/documents/docs/23488_be8ce9606ecb203bf8a9a4bde09ac399.pdf
[145] Ibid:10
[146] Ibid

2.2.5 Luxembourg

Luxembourg is commonly known for its highly pragmatic approach to laws and regulations in the financial sphere. It ensures the attractiveness of Luxembourg as a financial center within the EU for financial services activities. Historically, that country has focused on the investment funds and banking sectors. However, currently, Luxembourg is tended to be open for the new industries and trends such as FinTech.[147] Obviously that it might be explained by the huge amount of capital and developed banking sector, but in the same, in terms of phenomena like STOs or ICO, the appropriate level of regulation might be ensured as well.

Under Luxembourg legislation, the key legal act in terms of the legal qualification of the tokens as securities and for the functioning of financial market per se is law of 5 April 1993 on the Financial Sector.[148] It is worth to note that, this law, as well as any other legal act of the Luxembourg regulatory framework do not contain the definition of the security.[149] Presumably, it has conducted intentionally by the legislator in order to capture any new financial instrument which may appear on the market. At the same time, by the Law of 30 May 2018 On markets in financial instruments.[150] Luxembourg, as the EU Member State, has transported in domestic legislation provisions of the MIFID II. Amongst the others, the list of financial instruments that have been introduced to the national legislation contains the term "transferable securities". Hence, the criteria that are established by the EU law also are applicable in Luxembourg, in particular: transferability, negotiability on the capital markets, and not being a payment instrument.

Luxembourg legal writing on the broader notion of term security generally implies the rights that are resulting from a legal act vis-à-vis an issuer (or any other person having obligations under the security), materialized or, as the case may be, ascertained by a documentary support. Such securities shall have certain necessary peculiarities making them fungible and allowing their circulation on the capital markets.[151] Hence, the analysis of capabilities of the tokens to be considered as a security may be based on that definition. According to the Luxembourg Private

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[147] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)", Thinkblocktank.Org, 2019: Part C p. 130, Accessed by April 13, 2020. http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[148] "Law Of 5 April 1993 On The Financial Sector, As Amended",April 15, 2020, *Cssf.Lu*, 1993, http://www.cssf.lu/fileadmin/files/Lois_reglements/Legislation/Lois/L_050493_lfs_upd160719.pdf

[149] Luxembourg Private Equity and Venture Capital Association "Security Tokens – Legal Aspects",*Lpea.Lu*, 2019: 3, Accessed by April 15 https://www.lpea.lu/wp-content/uploads/2019/04/lpea-tokens-consolidated-01-04-2019-online-version.pdf

[150] "Law Of 5 April 1993 On The Financial Sector, As Amended". April 15, 2020. *Cssf.Lu*, 1993, http://www.cssf.lu/fileadmin/files/Lois_reglements/Legislation/Lois/L_050493_lfs_upd160719.pdf.

[151] Thinkblocktank, Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: Part C p. 132, Accessed by April 13, 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

Equity Venture Capital Association (EVCA): "when assessing whether a token is a security or not, attention should be given to the fact that it is a substance over form analysis that will prevail. If a token has features commonly found in securities, such as dividend rights, rights to future profits, political rights such as voting rights or rights to claims in bankruptcy as a creditor, then it is likely it will be deemed a security." [152] Basically, such determination and interpretation of the term transferable securities with respect to the tokens fully correlates with the commonly adopted EU Law approach. Nevertheless, EVCA is not a governmental supervisory authority, its opinion brig a certain degree of understanding about principle and logic of how the security tokens will be treaded user the Luxembourg law and legal doctrine.

However, the question of the correlation between the features of the securities concept and the possibility of the tokes to have them is not a single question in terms of security token legal analysis. Another issue that may be faced is the legitimacy of transferable securities to be recorded via the electronic mediums. In accordance with the bill № 7363 issued in 2018, Luxembourg legislator prescribes such possibility for the securities to be issued on electronic ledges such as blockchain.[153] So, legal qualification of the tokens essentially should be conducted independently from that aspect since the law allows to have an electronic register for the securities as well.

Hence, based on the analysis mentioned above, it can be concluded that the concept of the securities that is contained in Luxembourg law, especially when it comes to the terminology, are based on the MIFID II legal regime. The interpretation of the term: transferable securities by the Luxembourg legal doctrine and practitioners coincide with the vision of the EU law as well. According to the legislation, the electronic form and the digital record is possible for the securities and there are no obstacles for the security tokens in those terms.

2.2.6 Malta

Malta has the solid reputation of the EU financial center with a transparent and business-friendly legislative framework that is suitable for both the trading of all financial

[152] Luxembourg Private Equity and Venture Capital Association "Security Tokens – Legal Aspects". *Lpea.Lu*, 2019: 3, Accessed by April 15, https://www.lpea.lu/wp-content/uploads/2019/04/lpea-tokens-consolidated-01-04-2019-online-version.pdf.

[153] Loi Du 1Er Mars 2019 Portant Modification De La Loi Modifiée Du 1Er Août 2001 Concernant La Circulation De Titres.", Chd.Lu, 2018, https://chd.lu/wps/PA_RoleDesAffaires/FTSByteServingServletImpl?path=941A5ADDCBD2A7967FA717045881789D441DD9A03654CB056EB4C1BD77207AD3A680CD9F7B06B38FF5BDE9B7845E2E09$20CD81147AB6C983B2B378482C9F6417.

instruments and rendering financial services.[154] Malta was a pioneer state in the creation of the rules for innovative technology covering DLTs, ICOs, and relative services providers. Three pillars are the basest for such regulations: consumer protection, market integrity and financial stability. In Malta, tokenized financial instruments are recognized as such and continue to be regulated on both: national and EU levels.[155]

In 2018, several legal acts that are purported to regulate the issuance and further turnover of the crypto assets as well as to define the legal status of the DLT had been adopted. The most relevant among them, in the light of STOs legal assessment, is Virtual Financial Assets Act. First of all, it established the clear division of the DLT assets into the following categories: virtual token, virtual financial asset, electronic money, financial instrument.[156] The legal meaning of that list is recognized capability of the financial instruments to be based on distributed ledgers. Also, that legal act contains so-called Financial Instrument Test. The main idea of that test is to determine to which group of the DLT assets particular tokens can be assigned. In case of security tokens, such definition is referring to the Second Schedule of the Maltese Investment Service Act.[157] A list of the financial instruments that are contained in that schedule replicates those which is contained in section C of the MIFID II. Thus, one of the instruments is transferable securities, and legal assessment of security tokens under the Maltese Law also is concentrated on that term and its interpretation.

In comparison with the EU law, Maltese Investment Services Act provides another wording with regard to the transferable securities definition. On the one hand there is no expressly outlined exemption of payment instruments from the scope of that definition. And on the other hand, the phrase “Those classes of securities which are negotiable on the capital market and include” can be treated as such that has a restrictive, but not an exemplary nature.[158]

In accordance with the opinion of Maltese National Competent Authority - Malta Financial Service Authority (MFSA), tokens to be considered as transferable securities should be: exchangeable, prescribing a certain bundle of right to their owner and may not to be the instrument of payment.[159] The first criteria should be assessed through the prism of capability of the tokens to be negotiable on the capital markets. During such assessments the possibility of imposing the

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[154] "Security Token Offering. Public Offering Of Tokenized Securities In Malta". Chetcuticauchi.Com. https://www.chetcuticauchi.com/factsheets/Security-Token-Offering-STO.pdf.
[155] Ibid
[156] "Virtual Financial Assets Act", *Justiceservices.Gov.Mt*, 2018, Accessed by: April 25, 2020, http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=12872&l=1 .
[157] Ibid
[158] "Investment Service Act", *Justiceservices.Gov.Mt*, 1994, Accessed by: April 25, 2020, http://www.justiceservices.gov.mt/DownloadDocument.aspx?app=lom&itemid=8839&l=1.
[159] Maltese National Competent Authority, "Financial Instrument Test Guideline". *Mfsa.Mt*, 2018:10. Accessed by: April 25, 2020 https://www.mfsa.mt/wp-content/uploads/2019/05/VFAG_FITest_1.02.pdf.

restrictions for the token to be transferred from the one owner to another should be taken into account.[160] Basically, it is the replication of the common EU Law approach. Also MFSA has stated that: "A DLT asset's qualification as a Transferable Security is further subject to the assessment of the rights attached to it in order to determine whether these effectively render such DLT asset akin to a share in a company, partnership or other entity, and depository receipt in respect of share/s, or bond or other form of securitized debt or gives the right to acquire or sell any such Transferable Securities or gives rise to a cash settlement determined by reference to, inter alia, Transferable Securities". [161] In the light of the third criterium, MFSA has pointed out that, due to MIFID II excludes the payment instrument form the definition of transferable securities, such criteria should also be applicable to the DLT assets, in particular, security tokens.[162]

Therefore, based on the conducted analysis, it can be concluded that the Maltese legislation is based on the EU and entirely correlates with the concepts and definitions that are contained in MIFID II. Notwithstanding the different wording of the term transferable securities, the position of the MFSA concerning its interpretation is within the general EU law approach. Also, it should be noted that, the Maltese regulatory framework prescribes the possibility for the securities to have electronic form. Moreover, in comparison with the other analyzed jurisdictions, Malta is the only one country where the differentiation and classification of the crypto-assets are established on the level of the law, and due to the financial instruments test, the lines amongst of them are clearer.

[160] Ibid
[161] Ibid
[162] Ibid

3. CONDTUCTION AND TURNOVER OF THE SECURITY TOKEN OFFERING ON THE SECONDARY MARKETS. LEGAL ASPECTS

The development of the digital economy is required certain transformation and adaptation of the traditional financial system to the new changes. Thus an assessment of the suitability with regards to the current EU regulatory framework in context of Initial Coin Offerings and crypto-assets is necessary.[163] According to the previous chapter, it can be concluded that the crypto-assets that prescribe economic or governmental rights to their owner i.e., security tokens, are within the scope of the EU Capital markets Law. As a result, it triggers the application of the numerous legal acts that regulate different stages and aspects of the securities lifecycle. Due to the fact the current legislation was not initially designed with the taking into account the crypto-assets and especially security tokens, it is necessary to consider the possible legal gaps and risks that might be faced. In terms of security tokens, the legal analysis might include the scope of the legal acts and their applicability, the questions of decentralized and online nature of the token offerings, the appearance of the new participants on the market, and challenges that are connected with them. Moreover, that changes might be connected not only with issuing and turnover of the security tokens but also, with the infrastructure on which that tokens are operating.

One of the benefits that crypto-assets could possibly bring is additional liquidity to the low liquid assets. At the time, those tokens that are not with the scope of the term transferable securities possibly can be classified as other types of financial instruments, especially as a unit in investment funds. That crypto assets might be within the scope of the regulatory framework that is applicable to the investment funds that are created and operating with the territory of the EU. Moreover, due to the specific nature of token and blockchain, within the laws that regulate the investment spheres also could be faced number of gaps and difficulties.

Thus, this chapter will be focused on the analysis of the EU legislation and its applicability to the security tokens in terms of their issuance and further functioning on the secondary markets. Such questions as market abuses, the functioning of the trading platforms, anti-money laundering challenges, publishing of the relevant information and repotting problems, post-trading process, and depositary activities on the one hand, and applicability of legislation to that issues on the other.

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[163] "Fintech Action Plan: For A More Competitive And Innovative European Financial Sector". COM(2018), *European Commission* 109/2 *Ec.Europa.Eu*, 2018. Accessed by April 16, 2020 https://ec.europa.eu/info/sites/info/files/180308-action-plan-fintech_en.pdf.

3.1 Application of the Prospectus requirements to the STO projects

Before securities can be offered to the public on the primary market or can be traded on a regulated secondary market, the issuer has to daft a special document called Prospectus, which after official approval of the Nacional Competent Authority, should be published. Prospectus is supposed to contain the information about the issuer and the offer, which is necessary for an informed investment decision, presented in an appropriate and transparent way.[164] Generally, disclosure of the information is vitally important when it comes to the offers of securities to the public or admission of such securities to trading on a capital market. Adequate legal requirements on that regard permit to protect the investors by the mitigating the risk caused by the asymmetries of information between their side and issuers.[165]

Generally, the rules about the content of the Prospectus is regulated on the EU-level. However, in certain cases, Member States are allowed to establish their own rules in that regard. Concerning the EU Law, a key legal act that is conscripted to mitigate the investors risks caused by asymmetry in the informational sense is Prospectus Regulation. [166] The aim of that legal act is to ensure investor' protection and market efficiency while enhancing the internal market for capital.[167] Adequate and comprehensive provision of information about the nature of the issuer and of the securities is necessary for market participants to make an investment decision. Basically, in combination with rules on the conduct of business, it allows achieving high level of investor protection.[168]

In accordance with the Prospectus Regulation, the content of such a document should have a high degree of sufficiency and be objective. Also, it should be presented in an analyzable, concise and comprehensible form. Prospectus should be approved by the National Competent Authority of the Member State, where the offering of such securities will take place, and in the same NCA should notify the ESMA about the approval of prospectus. Aftermath, the prospectus can be published. It should be done within the reasonable term, at least in the beginning of the offer to the public or when such securities are admitting to trading.[169] According to the article 21

[164] Philipp Hacker and Chris Thomale, "Crypto-Securities Regulation: ICOs, Token Sales And Cryptocurrencies Under EU Financial Law", *SSRN Electronic Journal*, 2017: 14, doi:10.2139/ssrn.3075820.
[165] "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. Accessed by April 17, 2020. https://eur-lex.europa.eu/eli/reg/2017/1129/oj.
[166] Ibid
[167] Ibid
[168] Ibid
[169] Ibid

of Prospectus Regulation, electronic form of Prospectus should be accessible in the web-site of issuer or on the website of the financial intermediaries placing or selling the securities, the website of the regulated market where the admission to trading is sought, or on the website of the MTF administrator.[170]

How it was discussed in the first chapter of that work, the offering of the crypto assets, including STOs and ICOs are also accompanied by the introductory document that is called White Paper. Publishing of that document is not regulated in terms of crypto assets. Often, that document does not contain any information or references about the issuer of the tokens such financial statements for the relevant period or transparent description of the corporate arrangement. However, the situation in case of security tokens should be different due to the reason that securities law is applicable. On that point, the question about the applicability of the Prospectus Regulation to the Security token offerings can be arisen and considered.

The scope and the subject of matter of Prospectus Regulation is defined by the Article 1(1): "This Regulation lays down requirements [….] prospectus to be published when securities are offered to the public or admitted to trading on a regulated market situated or operating within a Member State." [171] Thus, it is applicable to securities offered to the public or admitted to trading on a regulated market located or operating in the territory of the EU Member State.[172] The definition of the term security that is compromised by the Regulation is referring to transferable securities with the exception of the money market instruments, having a maturity of less than 12 months, within the meaning of MiFID II. Obviously, due to the referral nature of these definitions, the interpretation of them should be conducted in the same way with the main source. Based on the legal analysis that was conducted in the previous paragraph of that work, the majority of security tokens are likely to be qualified as transferable securities and that criteria of the Prospectus Regulation are satisfied.

However, the requirement to be within the scope of the term security is not enough for the security tokens to trigger the application of the Prospectus Regulation, since such tokens should be offered to the public or purported to be traded on the "regulated markets".[173] Importantly, that

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[170] "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. Accessed by April 17, 2020. https://eur-lex.europa.eu/eli/reg/2017/1129/oj.

[171] Ibid

[172] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: Part A p. 44, Accessed by April 14, 2020. http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[173] "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. Accessed by April 17, 2020. https://eur-lex.europa.eu/eli/reg/2017/1129/oj.

crypto-exchanges where security tokens are traded, are also within the term regulated market since, such tokens constitute features financial instruments. In accordance with the article 2 (d) of the Prospectus Regulation "offer of securities to the public means a communication to the persons in any form and by any means, presenting sufficient information on the terms of the offer and the securities to be offered, so as to enable an investor to decide to purchase or subscribe for those securities." [174] Financial intermediaries that are involved in the offering of such securities are also within the scope of that definition.[175]

Usually, the offerings of the crypto-assets, are accompanied by marketing campaigns at least among the participants of the crypto-society using various online platforms and internet resources. Moreover, the content of such advertisements and offerings allow the possible investors to make a design with regard to the purchasing of crypto-assets. As a result, in case of security tokens, it triggers the application of Prospectus Regulation because they are securities and they are offering to the public. At the same time, the difference between traditional securities and security tokens is in the absence of financial intermarries. In case of STOs, tokens are offered directly to the public by the issuer. Although, according to the above-mentioned definition, the way which does not include intermediaries is not an obstacle for the application of the Prospectus Regulation to the Security token offerings.

The application of the rules that are prescribed by the Prospectus regulation does not always stipulate the issuance of the Prospectus by the issuer of the securities. According to the Prospectus Regulation there is a number of exceptional cases that escape the introduction of that document to the publicity. Exemptions include certain issuances to a very limited number of cases, with large minimum thresholds or made only to qualified investors. A small number of Security token offerings would be able to use these exemptions.[176] At the same time, one of such exceptional rules, permit Member States to choose the minimum threshold for the avoidance of Prospectus publishing. In general, total consideration of each such offer in the Union is less than a monetary amount calculated over a period of 12 months which shall not exceed EUR 8 000 000.[177] STOs are usually used as a way of fundraising by the small projects. Hence the majority of them are within

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[174] "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. Accessed by April 17, 2020. https://eur-lex.europa.eu/eli/reg/2017/1129/oj.

[175] Ibid

[176] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)",Thinkblocktank.Org, 2019: Part A p. 44, Accessed by April 13, 2020. http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf

[177] "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. Accessed by April 17, 2020. https://eur-lex.europa.eu/eli/reg/2017/1129/oj.

that category. It means that the obligation of the Prospectus publishing with respect to the huge number of STOs might be regulated on the national level, especially in terms of threshold for non-publishing.

The first issue that can be faced in case of application of Prospectus Regulation to Security token offerings concerns the assessment of the values that have such offering. Prospectus Regulation refers to the euro as the main EU currency. In contrast, sales of the tokens are usually paid in cryptocurrencies.[178] The issue is that cryptocurrencies such as Bitcoin are no fiat currencies and there is no official exchange rate for them.[179] Moreover, cryptocurrencies have high level of volatility, thus if the token's value is denominated in cryptocurrencies, their effective price will be volatile as well. As an effect, it can create some legal difficulties, for example, when it comes to the assessment of whether the offering in within the 8 million threshold or not.[180] With the absence of methodology of the exchange rate determination, there is no legal ground for the application of that threshold to the particular STOs. Moreover, even if such a rate was defined, still the mechanism of how it should be determined is questionable. Importantly, this issue arises not only the transactions are conducted via the cryptocurrency only, but with fiat currency as well. It can be suspected that this problem has not been taken by the legislators during the Prospectus Regulation drafting and adoption.

With respect to security token offerings, it is important to take into consideration the transborder nature of such offerings. Due to the fact that tokens are selling online, advertisement is usually conducted in English and purported to the investors from different counties, and all EU members states respectively. In that case the question about the applicability of the EU law or the legislation of particular Member State is not relevant, since it might be applicable in any way.[181] In that context passport regime that is prescribed by the Prospectus Regulation is crucial. "Once a certificate of approval or passport is issued to a host member state, the company can use the prospectus approved by their home member state in the host member state's jurisdiction. There is no need for a new prospectus to be drawn up to enable the offering (or admission) in the host

[178] Philipp Maume, "Initial Coin Offerings and EU Prospectus Regulation", *European Business Law Review* (2019): Available at SSRN:15 https://ssrn.com/abstract=3317497
[179] ibid
[180] "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. Accessed by April 17, 2020. https://eur-lex.europa.eu/eli/reg/2017/1129/oj.
[181] Maume, Philipp, Initial Coin Offerings and EU Prospectus Regulation *European Business Law Review*. (2019): Available at SSRN:17 https://ssrn.com/abstract=3317497

member state to proceed." [182] Thus, the potential offering of security tokens can be conducted in many Member States simultaneously with avoidance of additional proceedings.

At the same time, the issue of the restriction of the Security token offering targeting might arise. For instance, the issuers of security tokens strive to exclude some countries from the coverage of the offering. Due to the online selling process of the tokens on the one side, English language prospectus on the other, as well as widespread advertisement, it can be highly problematic to escape particular countries or regions from the scope of the offer. The result is that a company initiating STO in Asia and marketing it via the internet would be in breach of Prospectus Regulation, and could face the possible public enforcement actions in any EU Member State.[183] Generally, token issuers are capable of imposing the relevant restrictions on the regional scope of the offer by adding disclaimers and other technical measures.[184] In particular, the access from certain countries can be reduced or the sale of the tokens can be rejected in a stage of inquiring the identity of the potential investor and anti-money laundering proceedings in accordance with anti-money laundering legislation. Thus, such measures should not be overburden for the issuers of the security tokens.

To concluded, according the above analysis if the tokes are inherent the features of securities and can be qualified as transferable security under the MIFID II, Prospectus regulation, in general, will be applicable to them. However, that legal act also contains the number of exceptional cases. Moreover, there is also a layer for the application of the national of the EU Member States. The majority of the aspects and specifies that STOs have, are taken into account by the Prospectus regulation, for example, application of the passport regime and there is no need for the changes of the framework. On the same, the number of difficulties and obstacles are remaining.

3.2 Legal aspects of turnover of the security tokens on the secondary markets

It is highly complicated to overvalue the meaning of the appropriate and adequate requirements that should be established for the Prospectus of the securities that are to be invested by the publicity. However, the future lifecycle of the security tokens after issuance have a huge

[182] Financial Conduct Authority, "EEA Prospectus Passports". *FCA*, 2016. https://www.fca.org.uk/markets/primary-markets/regulatory-disclosures/eea-prospectus-passports.

[183] Philipp Maume, "Initial Coin Offerings and EU Prospectus Regulation", European Business Law Review (2019): Available at SSRN:13 https://ssrn.com/abstract=3317497

[184] Ibid 2

degree of relevance to the integrity and save the development of the capital markets industry as well.

One of the main purposes to be achieved with regards to an adequate level of investor's protection is transparency and clearance about the issuers of the securities, financial situation and changes that has been occurred. Changes that are contained by the Transparency Directive aims to establish the requirements for achievement of disclosure of accurate, comprehensive and timely information about the issuers and their securities that are admitted to trading on a regulated market in Member State.[185] "In particular, it requires the disclosure of periodic and ongoing information about these issuers, e.g., annual financial reports, half-yearly reports, interim management statements, acquisition or disposal of major holdings and any changes in the rights of holders of securities."[186] According to the article 1 of the mentioned directive, it is applicable to the issuers whose securities are already admitted to trading on a regulated market situated or operating within a Member State.[187] As in Prospectus Regulation the term security in case of Transparency Directive is referring to definition of the transferable securities stated by the MIFID II. So, the question about the application of that directive to the issuers of the security tokens on that ground might not be doubtful. At the same time, it should be noted that, requirements of Directive are not applicable to those issuers of the security tokens that are not tradable with the regulated markets of Member States. How it was stated in a previous chapter, crypto-exchanges can be within the concept of the regulated market. Thus, the issuers of security tokens that are listed on such crypto exchanges need to comply with the periodic and ongoing disclosure requirements set in the Transparency Directive.[188]

Moreover, the activity of crypto exchanges per se, and also other intermediaries involved in the turnover of the security tokens can arise some legal issues. Since the Security tokens are qualified as transferable security, there are no doubts regarding the MIFID II application to them. How it was stated in the previous chapter, the trading platforms where security tokens are traded should be classified as regulated markets, multilateral trading facilities, or organized trading

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[185] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 23,Accessed by: April 17, 2020, https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[186] Ibid

[187] "Directive 2013/50/EU of the European Parliament and of the Council of 22 October 2013 amending Directive 2004/109/EC of the European Parliament and of the Council on the harmonisation of transparency requirements in relation to information about issuers whose securities are admitted to trading on a regulated market, Directive 2003/71/EC of the European Parliament and of the Council on the prospectus to be published when securities are offered to the public or admitted to trading and Commission Directive 2007/14/EC laying down detailed rules for the implementation of certain provisions of Directive 2004/109/EC" Eur-Lex. Accessed by April 17, 2020. https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32013L0050

[188] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019 Accessed by April 15, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

facilities. As a consequence, all such platforms might be compliant with the certain requirements established by the MIFID II regime. Moreover, the orchestrators of such platforms also who are either market operators or investment firms within the meaning of MIFID II might follow certain legal requirements as well.

Generally, the number of requirements that should followed by such legal entities are quite widespread, it includes: pre and post-trade transparency, transactions reporting and obligations to maintain records in appropriate state, capital and organizational requirements etc. According to the ESMA: "an issue has to do with the disintermediated access to crypto-asset trading platforms. In case the platform qualifies as RM or MTF, it would need to check that its members or participants are of sufficient good repute, with sufficient level of trading ability, competence and experience and with adequate organizational arrangements and resources. Conducting those checks may be time and resource intensive for the platforms in the case of individual investors, because of their large number, and many individual investors may not pass those tests".[189] It can be argued that investment firms anyway are obligated to collect and inspect the details of the clients during the anti-money laundering procedures. However, in that case not only the personal details should be checked but also such peculates as competence, experience or recourses of the investor are the subjects of inspection as well.[190] In comparison with traditional securities where that burden is divided between numerous financial intermediaries such as banks, in case of STOs it should be handled by the investment firm only. However, it also should be noted that due to the small amounts of the STOs that problem has not mature yet.

The other issue that can be outlined in course of trading of the security tokens is the fact that according to the MIFID II the entities that are considered to be RM or MTF are obliged to obtain the appropriate license. As such, this requirement without any doubts is prudent and legit and cannot be considered as aggravating. At the same time, that authorization procedure can be accessible only to the platforms where a fund manager can be identified, as an effect it excludes the exchange platforms which are decentralized.[191] Also, the reliance on the computer codes that are behind such platforms is questionable. "Meanwhile, decentralized business models might help mitigate some of the risks found in traditional trading venues, e.g., counterparty risk." [192] How it was point out by the French NCA: "while the obligations laid down by the MiFID regulations for

[189] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 28. Accessed by April 15, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf
[190] Ibid
[191] Authorité des Marché Financiers, Review and analysis of the application of financial regulations to security tokens, February 26, 2020: 18. Accessed by March 25, 2020 https://www.amf-france.org/sites/default/files/2020-03/legal-analysis-security-tokens-amf-en_1.pdf
[192] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 28. Accessed by April 15, 2020

MTFs and OTFs seem compatible with security token platforms, an adaptation of these regulations would be required for the development of decentralized platforms."[193] At the same time, the questions with respect to hybrid type platforms might be addressed. For example, some platforms prescribe only matching of orders and their exercising is conducted automatically via the smart contracts.[194] "A question that could therefore arise at supervisors is whether these platforms would qualify as RMs, MTFs, OTFs, investment firms or not."[195] For example, French AMF, has pointed out that the application of the regulation to these platforms requires analysis on a case-by-case basis.[196]

Another problematic question that can be faced with the widespread of STOs and trading of the security tokens on the exchanges is compliance of with the data reporting and record-keeping requirements e.g., transaction reporting, instrument reference data, transparency, and orderbook data, etc.[197] Such requirements were initially designed for the traditional financial instruments hence they do not capture the security tokens within the scope. In that light, it also should be mentioned that currently utilized international classifications and identifiers, such as International Securities Identification Number (ISIN) (ISO 6166) or Classification of financial instruments (CFI) (ISO 10962) have not yet been adapted to the new developments in the crypto-assets domain.[198] "The CFI code is a cornerstone of many reporting regimes that allows to prescribe precise rules for data reporting, validation and processing dependent on specific classification of instruments, taking into account distinct characteristics of different asset classes. As of now, this standard does not envisage a specific classification of crypto-assets and does not allow for differentiating them from traditional instruments, nor distinguishing between various crypto-assets and their specific characteristics. Similarly, the ISIN code that uniquely identifies each financial instrument and is mandatory for reporting under, MIFID II regime, currently is not being assigned to crypto-assets."[199] "Market participants will not be able to obtain the codes

[193] Authorité des Marché Financiers, Review and analysis of the application of financial regulations to security tokens, February 26, 2020: 2.Accessed by March 25, 2020 https://www.amf-france.org/sites/default/files/2020-03/legal-analysis-security-tokens-amf-en_1.pdf
[194] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 28, Accessed by April 15, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf
[195] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 28 Accessed by April 15, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf
[196] Authorité des Marché Financiers, Review and analysis of the application of financial regulations to security tokens, February 26, 2020:15 Accessed by March 25, 2020 https://www.amf-france.org/sites/default/files/2020-03/legal-analysis-security-tokens-amf-en_1.pdf
[197] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 28, Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf
[198] Ibid:38
[199] ibid

required by the regulations and thus will not be able to comply with the applicable reporting requirements." [200] It should be noted that these issues with standards might be resolved by the international level since mentioned standards are established on the international level but not by the EU Policymakers.

Hence, as it can be concluded form the above legal analysis, current regulatory in general current regulation with regard to the security tokens trading process is applicable and capable of catching the main regulatory aspects achieving the respective goals. At the same time, according to the opinion of the ESMA, there is a number of legal gaps that concern the negotiation of the security tokens on the trading platforms.[201] It should be mentioned that currently the STOs are on the early stage of their development and in the future the other possible gaps might be discovered.

3.3 Security tokens offering and market abuse rules

Economic growth and wealth are directly dependent on the proper functioning of securities markets and public confidence in them. Efficient, effective, and transparent financial markets inherently prescribe a high level of market integrity. At the same time, market abuse in any form and the absence of adequate reaction harms the integrity of financial markets and decrease the degree of public confidence in securities and derivatives. In order to create common standards among the Member States for the contraction to that negative phenomenon, the EU policymakers have adopted the Regulation No 596/2014 on the Market Abuse i.e., Market abuse regulation (MAR). That legal act is to establish a common regulatory framework concerning negative issues such as: insider dealing, unlawful disclosure of inside information or market abuse.[202]

Generally, Market Abuse regulation is applied to the financial instruments that are, admitted or traded on the regulated markets, MTF or OTF, including those instruments for the admission of which the relevant request has been made. Also, the scope includes the other types of financial instruments that are not within the categories mentioned above but the price of which

[200] Ibid:39

[201] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 29 Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[202] "Regulation (EU) No 596/2014 Of The European Parliament And Of The Council Of 16 April 2014 On Market Abuse (Market Abuse Regulation) And Repealing Directive 2003/6/EC Of The European Parliament And Of The Council And Commission Directives 2003/124/EC, 2003/125/EC And 2004/72/EC Text With EEA Relevance". Eur-Lex.Europa.Eu. Accessed 8 May 2020. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32014R0596.

is dependent on the price of the instruments that are within the first category. [203] With regard to the definitions, such as financial instruments or regulated markets, the MAR is referring to the MIFID II respective provisions. MAR has its own definition of the term "securities". However, it might not have a huge impact on the determination of the scope application of that legal act in a sense that the concept of the securities that is outlined in MAR does not have a huge difference with the those that is contained in MFID 2. Thus, it can be concluded that Market Abuse Regulation might be applicable to the Security token that are intended to be or already admitted on the regular markets MTFs and OTFs.

As a part of the market abusive law, MAR contains insider trading rules. This is further reinforced by further measures intended to prevent insider trading, such as duty to disclose the information to the publicity as soon as possible, maintenance of the insider lists, obligatory notification of the supervisory authorities by the management or issuers and affiliated with them persons about their transactions. "When considering the applicability of such measures to tokens, it is interesting to note that tokens are currently often sold by very early-stage start-ups looking for capital to finance the development of their proposed product. Such-early stage (and often pre-minimum viable product) investments are particularly risky, with a total loss of the investment probably if the project fails."[204] "In such early-stage companies, even minor developments at product level can have significant impacts on the market pricing of their tokens, and could therefore be classified as inside information and therefore should be disclosed to the public. This could risk markets being flooded with unnecessary information on a semi-continual basis that is more confusing than informative."[205]

It is noteworthy that prohibition of insider trading is addressed to any person and is not restricted to be applied for the issuers or management of the legal entity that issued security tokens. In their Advice on Initial Coin Offerings and Crypto-Assets ESMA has posted out that "Persons who produce or disseminate investment recommendations would also need to ensure that such information is objectively presented according to the Article 20 of the MAR, which may be particularly pertinent for crypto-asset markets where limited trading volumes and / or concentrated ownership of certain crypto-assets may raise greater risks of conflicts of interest."[206]

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[203] Ibid

[204] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)", Thinkblocktank.Org, 2019: Part A p. 39, Accessed by April 13, 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[205] Ibid.

[206] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 28, Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

Also, the other problem that has been considered in light of MAR is the appearance of the new participants in the system who can possess insider information due to their functions. "For example, new actors may hold new forms of inside information, such as miners and wallet providers, which could potentially be used to manipulate the trading and settlement of crypto-assets."[207] Obviously that such concern might be more relevant to the cryptocurrencies and payment tokens, but in the light of security tokens, it can be actual as well. For example, the wallet provider who possesses the information about the owners of the wallets where the security tokens are held can track all transactions. On the other side, these new players could have an obligation to report about suspicious transactions to the relevant authority, and thus the anti-abusive measures were enhanced. But in any case, that might be considered but the regulators in light of Security token offerings

"Unlike MiFID II, the MAR is not limited to the territory of the Member States of the European Union. This is due to the wording of Art. 2 para. 4 MAR which states that: "the prohibitions and requirements of the regulation apply to all acts and omissions that fall within its scope, whether in the European Union or in a third countries."[208] "Due to the differing territorial scope, if electronic trading platforms such as crypto exchanges were to be qualified as MTFs or OTFs, the complex question of where these trading platforms are operated from must also be answered."[209] The other difficulty might arise when it comes to the decentralized type of trading platform for security tokens. There may be a lack of clarity as to the identity of the market operator as well as the actual place of the operation of such platforms.[210] Although how it was discussed in a previous paragraph, the qualification of such platforms as, for example, MTFs or OTFs is debatable per se, and the described possible problems might arise, when that aspect will be clarified.

Hence, it can be concluded that Market Abuse Regulation, should be applicable to the security tokens since they are within the term financial instruments. The Regulation is addressed to the indefinite range of persons, prohibition of insider trading and abusive behavior is applicable to any individual or legal entity. "In addition, the trading platforms would need to have in place effective arrangements, systems, and procedures aimed at preventing, detecting, and reporting market abuse."[211] Current abusive legislation may have a number of legal gaps and challenges that

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[207] Ibid

[208] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)". Thinkblocktank.Org, 2019: Part A p. 40. Accessed by April 15, 2020. http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[209] Ibid

[210] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 29. Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[211] ibid 2

might be considered by the legislators in the future. Probably the presence of such gaps can be explained by the suppose that current anti-abusive regulatory framework was not initially desired for the security tokens and does not that into account their specific nature. Which is basically the common problem, for the other legal acts as well.

3.4 Tokenized investment funds

Due to the specific nature, the legal analysis of security tokens may not be limited with shares in the company or bonds. Certain tokens might be considered on the subject of having the peculiarities of units in collective investment undertaking. Hence, the launch of such token offerings may be classified as the establishment of an investment fund.[212] Such tokenized investment funds have a substantial degree of similarity to the EU concept of undertakings for collective investment in transferable securities (UCITS) where a collective pooling of funds is used by an undertaking to invest, while the investor is entitled to receive the dividends and to sell the units.[213] Regulatory framework for such collective investment schemes is prescribed by Directive 2009/65/EC On the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS Directive).[214] Generally, UCITS Directive is a legal act that allows collective investment schemes to operate in the territory of the EU on condition of being authorized by the relevant authorities in one Member State only. Also, additional regulation can be issued by the Member States for the benefits of the investors.[215] However, it can be questionable whether such undertakings can have tokenized form, and whether the USITS Directive is applicable?

According to the article 1 of the UCITS Directive, undertakings for collective investment in transferable securities means an undertaking with the sole object of collective investment in transferable securities or in other liquid financial assets, with capital raised from the public and which operate on the principle of risk-spreading. Units of such undertaking should be, at the request of holders, repurchased or redeemed, directly or indirectly, out of those undertakings'

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[212] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)", Thinkblocktank.Org, 2019: Part A p. 49, Accessed by April 13, 2020. http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[213] Thijs Maas. "Initial Coin Offerings: When Are Tokens Securities In The EU And US?", *SSRN Electronic Journal*, 2019: 56, doi:10.2139/ssrn.3337514

[214] "Directive 2009/65/EC Of The European Parliament And Of The Council Of 13 July 2009 On The Coordination Of Laws, Regulations And Administrative Provisions Relating To Undertakings For Collective Investment In Transferable Securities (UCITS)", Eur-Lex.Europa.Eu. Accessed by: 8 May 2020,https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02009L0065-20140917.

[215] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)",Thinkblocktank.Org, 2019: Part A p. 49, Accessed by April 13, 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

assets. Also, it is stated that the actions taken by a UCITS to ensure that the stock exchange value of its units does not significantly vary from their net asset value it might be considered as equivalent to the repurchase or redemption.[216] It should be noted that this definition of the UCITS has a crucial role for the determination of the scope of the directive. If the established criteria are not satisfied, such funds will not be able to get the authorization from the regulator and thus will not be capable of operating.

The problem with the tokenized investment funds is that generally, such funds do not prescribe the possibility of the redemption or repurchase the tokens that have been issued. Instead, its units or tokens are often traded on secondary markets themselves. Even if the sale of investment fund tokens on the secondary market can be deemed as redemption, none of the undertaking's assets are liquidated.[217] "As such, the question is raised whether a tokenized investment fund qualifies as a UCITS if there is no possibility for redemption or repurchase the tokens from the investor by the issuer." [218] Theoretically, the nature of the tokens is flexible, and there are no obstacles to the fulfillment of redemption criteria. However, the is a lack of such examples in the current market.

The other issue that might be taken into account tokenized investment funds are usually strived to invest in transferable securities. However, in reality, most of the tokenized funds are designed to invest in the crypto-assets, real estate, but not in transferable securities, how it is required for the qualification as a UCITS. Moreover, the definition of transferable securities that is provided by the UCITS Directive is slightly different from those with is established by MIFID II but, still, they are comparable. At the same time, some tokenized funds would be able to fulfill that criterion, but only when they are solely investing in security tokens that can be considered as transferable securities under UCITS directive. Hence, based on the above analysis, it can be concluded that there is a possibility for the tokenized investment fund, be qualified as UCITS. It might be a case only when the certain conditions are met. However, due to the fact, the industry of the crypto-assets is modestly developed, it is near to impossible to find the real embodiment of the tokenized UCITS.

Notwithstanding, the tokenized fund does not correspond to the criteria necessary for the UCITS Directive to be applicable, it is not excluded from being within the scope of the

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[216] "Directive 2009/65/EC Of The European Parliament And Of The Council Of 13 July 2009 On The Coordination Of Laws, Regulations And Administrative Provisions Relating To Undertakings For Collective Investment In Transferable Securities (UCITS)", Eur-Lex.Europa.Eu, Accessed by: 8 May 2020.https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A02009L0065-20140917.

[217] Thijs Maas, "Initial Coin Offerings: When Are Tokens Securities In The EU And US?", *SSRN Electronic Journal*, 2019: 56 doi:10.2139/ssrn.3337514.

[218] Ibid

Directive 2011/61/EU on Alternative Investment Fund Managers (AIFMD).[219] Basically, it lays down requirements for the authorization, organization, business conduct and transparency of managers of alternative investment funds (AIFMs). Such Managers deal with the orchestrating and marketing of alternative investment funds (AIFs) in the European Union.[220] In accordance with the article 4 of the AIFMD, AIF is a collective investment undertaking that is about to raise a capital from a number of investors, with a view to invest it in accordance with defined investment policy for the benefit of those who invested on that fund. The other requirement for collective investment undertaking is that it should not require an authorization under article 5 of UCITS Directive.[221] In other words, AIFMD is regulating collective investment schemes other than those falling within the definition by the UCITS Directive. As an effect within the scope of AIFMD are hedge funds, private equity, real estate funds, and other AIFM located in the EU.[222]

Generally, certain token offerings have features similar to those of a collective investment scheme, and therefore the launch of such token sales may be classified as the establishment of an alternative investment fund under AIFMD. Where it applies, various requirements should be met. Pursuant to AIFMD, an alternative investment fund must appoint a registered or a fully authorized AIFM, appoint various services providers such as depositary to take care of the assets of the investment fund, comply with delegation requirements and it cannot be marketed to retail investors.[223] Obviously, that in case of majority currently exited tokenized funds, the following of that requirements are not faced.

At the same time, there are some problematic aspects when it comes to the determination whether the tokenized investment fund is within the scope of the AIFMD or not. Certain tokenized funds may not have the conventional management arrangements. Instead, the decision-making process is spread among the participants. The most known example is DAO case that has been mentioned in first chapter, where the participants were entitled to decide on further investments of the fund's capital. In contrast, one of the features of collective investment undertaking defined by ESMA is an absence in unitholders or shareholders of the undertaking –

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[219] Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 Eur-Lex, Accessed by April 20, 2020 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011L0061

[220] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 28,Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[221] Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers and amending Directives 2003/41/EC and 2009/65/EC and Regulations (EC) No 1060/2009 and (EU) No 1095/2010 Eur-Lex, Accessed by April 20, 2020 https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32011L0061

[222] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)", Thinkblocktank.Org, 2019: Part A p. 50, Accessed by April 15, 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

[223] Ibid

as a collective group – day-to-day discretion or control.[224] Also, it was stated that: "The fact that one or more but not all of the unit holders or shareholders are granted day-to-day discretion or control should not be taken to show that the undertaking is not a collective investment undertaking"[225] At the same time, the right to vote in such tokenized funds like in a DAO are usually linked to the tokens and each token holder is entitled to vote and has an influence on the decision-making process. Basically, it seems that such tokenized funds cannot be qualified as a collective investment undertaking and, as a consequence as, AIF. Thus, AIFMD may not be applicable. However, the satisfaction of that criteria depends on how the scope of the term day-to-day discretion or control is interpreted. Compliance with that criteria should be assessed on a case by case basis since the degree of control given to the owners of the tokens may vary from one example of tokenized fund to another to another.

Hence, when it comes to the legal qualification of the security tokens, not only comparison with the term "transferable securities" and as a consequence, the application of the MIFID II and the other legal acts might be considered. How it was mentioned, Security tokens can have the form - the units in the collective investment undertakings as. Within the EU law, two main investment structures might be applicable: Undertakings for collective investment in transferable securities or Alternative investment fund and two respective regulatory frameworks: UCITS or AIFM Directives. In general, both of these structures can issue tokenized units which might be considered as security tokens. Depending on the particular conditions of the investment undertaking, it should be decided what legal act is applicable to that tokenized investment funds.

However, there might be some degree of uncertainty among the EU Member States, when it comes to the of determination whether a particular tokenized fund is within the scope of the above-mentioned Directives. For example, in the survey Legal qualification of crypto-assets – survey to NCAs conducted by ESMA, a project, where the tokens that is backed by different crypto-assets were provided to the National Regulators to be assessed. The views were split, 16 authorities qualified the tokens of the proposed issuer as units of collective investment undertakings under MiFID II, against 12 NCAs that provided the negative or inconclusive answer.[226] Such answers are signalizing about some difficulties with respect to the legal

[224] European Securities and Markets Authority "Guidelines on key concepts of the AIFMD" ESMA/2013/611 August 13, 2013: 5,Accessed by: April 20, 2020. https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-611_guidelines_on_key_concepts_of_the_aifmd_-_en.pdf

[225] European Securities and Markets Authority "Guidelines on key concepts of the AIFMD" ESMA/2013/611 August 13, 2013: 5 Accessed by: April 20, 2020. https://www.esma.europa.eu/sites/default/files/library/2015/11/2013-611_guidelines_on_key_concepts_of_the_aifmd_-_en.pdf

[226] European Securities and Markets Authority, Annex 1 "Legal qualification of crypto-assets – survey to NCAs" ESMA50-157-1384 January 2019: 16. https://www.esma.europa.eu/sites/default/files/library/esma50-157-1384_annex.pdf

qualification of the tokens. As a consequence, it might arise some problems with the application of the legislation concerning the collective investment undertakings as well.

3.5 Anti-money laundering requirements and STOs

"Flows of illicit money can damage the integrity, stability and reputation of the financial sector, and threaten the internal market of the Union as well as international development. Money laundering, terrorism financing and organized crime remain significant problems which should be addressed at Union level." [227] Due to the transborder and decentralized nature, crypto-assets are within the category of risks in terms of utilization of the financial system is not appropriate or even criminal purposes.

Obviously, the token issuers, as well as other participants, may have to comply with EU anti-money laundering laws. Like other aspects of EU financial system, anti-money laundering (AML) requirements in EU are governed by the EU legislation and Member States national legal orders.[228] On 30 May of 2018 by adoption of the Directive (EU) 2018/843 amending Directive (EU) 2015/849 On the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU or how it is called Fifth Anti-money Laundering Directive, the European Parliament has added to the scope of the anti-money laundering legislation the operations with the virtual currencies.[229] According to the 1 (18) article of the Fifth Anti-money Laundering Directive the "virtual currencies means a digital representation of value that is not issued or guaranteed by a central bank or a public authority, is not necessarily attached to a legally established currency and does not possess a legal status of currency or money, but is accepted by natural or legal persons as a means of exchange and which can be transferred, stored and traded electronically" [230] At the same time the meaning of the terms tokens is not defined. Security tokens could potentially satisfy the criteria of "being

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[227] "Directive (EU) 2015/849 Of The European Parliament And Of The Council Of 20 May 2015 On The Prevention Of The Use Of The Financial System For The Purposes Of Money Laundering Or Terrorist Financing, Amending Regulation (EU) No 648/2012 Of The European Parliament And Of The Council, And Repealing Directive 2005/60/EC Of The European Parliament And Of The Council And Commission Directive 2006/70/EC". Eur-Lex.Europa.Eu. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849.

[227] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)", Thinkblocktank.Org, 2019: Part A p. 30, Accessed by April 15, 2020. http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf

[228] Ibid

[229] "Directive (EU) 2018/843 Of The European Parliament And Of The Council Of 30 May 2018 Amending Directive (EU) 2015/849 On The Prevention Of The Use Of The Financial System For The Purposes Of Money Laundering Or Terrorist Financing, And Amending Directives 2009/138/EC And 2013/36/E". Eur-Lex.Europa.Eu. Accessed 8 May 2020. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018L0843.

[230] Ibid

a representation of the value" or "storing and trading electronically" nevertheless, they are not used by the individuals as a mean of exchange. Thus, it means that security tokens are not within the scope of the virtual currency definition. However, the spread of the AML regulations on the cryptocurrencies, indirectly concerns the STOs. Majority of the deals on the secondary markets with security tokens involve the cryptocurrencies. Due do the mentioned directive, the exchange services between virtual currencies and fiat currencies are a subject of the AML requirements.

However, the AML legislation will be applicable to the STOs on the other legal grounds. In accordance with the Directive (EU) 2015/849 On the prevention of the use of the financial system for the purposes of money laundering or terrorist financing i.e. (Fourth Anti-money Laundering Directive.) the legal entities that are professionally involved in the business activities with the management of the securities should be compliant with the requirements of that directive.[231] Thus, the financial intermediaries and crypto-exchanges that are rendering the finial services connected with the security tokens are within the scope of AML legislation. At the same time, in STOs case, offering of the tokens can be conducted directed to the publicity without of involving the intermediaries. Thus, the additional money laundering risks can be faced.

To sum up, the EU legislation does not expressly bring token issuers within the scope of the EU AML regime. However, the AML legislation has the indirect impact of the selling of security tokens. Generally, it depends on how a token sale is structured in particular if tokens are issued in exchange for fiat currencies, and how these provisions are ultimately implemented in national law in each Member State.[232]

3.6 Post-trade processing and other aspects of the security tokens lifecycle

In order to ensure the stable development and soundness of the financial markets, the regulatory framework should be purported to reinforce the strengths and mitigating the risks bearing by the participants. Stable settlement and clearing mechanism, credible depositary systems, safekeeping and, record-keeping of ownership of securities are inherent components of the financial system. Any deal that is conducted by the participants on the financial markets involves such activates. Since the security tokens are within the concept of transferable securities,

[231] "Directive (EU) 2015/849 Of The European Parliament And Of The Council Of 20 May 2015 On The Prevention Of The Use Of The Financial System For The Purposes Of Money Laundering Or Terrorist Financing, Amending Regulation (EU) No 648/2012 Of The European Parliament And Of The Council, And Repealing Directive 2005/60/EC Of The European Parliament And Of The Council And Commission Directive 2006/70/EC". Eur-Lex.Europa.Eu. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849

[232] Thinkblocktank, "Position Paper On The Regulation Of Tokens In Europe (Version 1.0)".Thinkblocktank.Org, 2019: Part A p. 30, Accessed by April 13, 2020, http://thinkblocktank.org/wp-content/uploads/2019/08/thinkBLOCKtank-Token-Regulation-Paper-v1.0-Part-C.pdf.

apparently, they are affected by the legal requirements that are established in that regard. However, due to the specific nature of the STOs, a number of legal challenges might be faced in that field as well.

Basically, Securities settlement, clearing and, depositary activities are regulated on the level of the EU Law. The main legal documents in that sphere are the Settlement Finality Directive (SFD) and Central Securities Depositories Regulation (CSDR). The main aim of SFD is "reducing systemic risk associated with participation in payment, clearing and securities settlement systems, in particular the risks linked to insolvency of a participant in such a system."[233] The necessity of proper regulation of these aspects can be explained in a way that "financial, legal or operational problem in any of the institutions that perform critical functions in the clearing and settlement process can be a source of systemic disturbance for the financial system as a whole." [234] On the other side CSDR is aimed to ensure the proper regulatory framework for in term of balanced settlement mechanism, appropriate and stable work of the central securities depositories (CSD) based on the stringent organizational, conduct of business and prudential requirements including preventive measures concerning the fraud and negligence.[235]

SFD is applicable to the "systems" or to their participants or collateral security provided in connection with participation in a system, operations of the central banks of the Member States. "System" in that case means a formal arrangement between three or more participants with common rules and standardized arrangements for the execution of transfer orders between the participants. The intermediaries such as clearing houses, settlement agents and other indirect participants are not counted. There are also the other requirements.[236] On the other side, within the scope of the CSDR are the settlement process of all financial instruments and all activities of the CSDs. Also, Article 2(10) Regulation defines a security settlement system. Basically, that term is referring to the mentioned above, with the exception that it should not be that is not operated by a central counterparty whose activity consists of the execution of transfer orders. [237] "Different requirements may apply to firms/participants that engage in securities

[233] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 30, Accessed by April 17, 2020, https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[234] European Cenral Bank. "Securities Settlement Systems And Central Counterparties". European Central Bank. Accessed 8 May 2020. https://www.ecb.europa.eu/paym/pol/activ/clearing/html/index.en.html.

[235] Regulation (EU) No 648/2012 Of The European Parliament And Of The Council, And Repealing Directive 2005/60/EC Of The European Parliament And Of The Council And Commission Directive 2006/70/EC". Eur-Lex.Europa.Eu. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849

[236] "Directive 2009/44/EC of the European Parliament and of the Council of 6 May 2009 amending Directive 98/26/EC on settlement finality in payment and securities settlement systems and Directive 2002/47/EC on financial collateral arrangements as regards linked systems and credit claims" EUR-Lex, Accessed by April 20, 2020 https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0044

[237] Regulation (EU) No 648/2012 Of The European Parliament And Of The Council, And Repealing Directive 2005/60/EC Of The European Parliament And Of The Council And Commission Directive 2006/70/EC". Eur-Lex.Europa.Eu. https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849

settlement activities, depending on the existence of a "securities settlement system" and on the applicability of SFD and CSDR".[238]

Due to the fact that the majority of the security tokens are qualified as transferable securities, and CSDR is the terminology of MIFID II in that context, the application of the that Regulation to the security tokens is evident. And it might arise a number of legal concerns and difficulties. Obviously, that CSDR as well as other legislation that has been considered in the previous chapters, was not initially designed with the taking in mind the security tokens and crypto-assets as such.

The first issue that might be faced in connection with security tokens is the identification of the "system operator".[239] The issue is that, the trading platforms where security tokens turnover, executes the transaction, that system is supposed to be operated by that "system operator". According to the SFD, that term implies an entity that is bearing responsibility for the functioning of the system [240] And if with the centralized types of exchanges the situation is clear, with the decreolized type, it might be complicated to identify that responsible entity. [241]

The other issue that might concern the operational activity of the crypto-exchanges is the recoding of the transactions. If the security tokens, are trading on such exchange, they should be reordered within the authorized CSD. And in that situation either exchange should obtain the proper authorization which is questionable in terms of combination of the roles, or it should cooperate with the already authorized CSD. That problem has no fundamental character but implies a number of costs and resources.[242] And in that case, it is noteworthy that, STO industry currently is on the initial stages of development which means, that financial resources and restricted. Probably, it might be considered during in terms of possible revision of the legislation. Also, the questions of the settlement discipline and settlement period that are prescribed by the CSDR might be take into account as well as book-entry form requirements. [243]

Another essential issue that might be considered with respect to the security tokens is a safekeeping services and recordkeeping of the ownership of the securities. In general, that mission was performing by the different entities such as custodian banks, registrars, notaries,

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[238] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 30, Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[239] Ibid: 31

[240] "Directive 2009/44/EC Of The European Parliament And Of The Council Of 6 May 2009 Amending Directive 98/26/EC On Settlement Finality In Payment And Securities Settlement Systems And Directive 2002/47/EC On Financial Collateral Arrangements As Regards Linked Systems And Credit Claims", Eur-Lex.Europa.Eu, 2019, https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0044

[241] European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 31. Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[242] Ibid

[243] Ibid

depositaries or CSD. At the same time, there is no legal definition of that type of services on the level of the EU. The rules may also be dependent form the subject. When it comes to the issuer of that tokens, the national corporate law might be applicable, while in terms of retail inventors, Mifid 2 should be applicable, USITS or AIFM concerning investment undertakings, respectively. [244] In terms of the security tokens, extremely relevant is an exact meaning and interpretation of the term "safekeeping" in the context of the wallet provider services. The owner of the tokens can conduct the operations with them only through the cryptographic wallet. Such wallets prescribe storing the private keys on behalf of the clients. And the main issue is whether such activity constitutes the "safekeeping" or not?

The wallet service provider has direct control of the security tokens of the clients. "ESMA's preliminary view is that having control of private keys on behalf of clients might be regarded as safekeeping services, and that rules to ensure the safekeeping and segregation of client assets should apply to the providers of those services. Yet, this requires further consideration, as other criteria may be relevant to qualify these services and the 'holding of private keys on behalf of clients' may take different forms and therefore have different legal meanings."[245] Also, it should be noted that currently, there is a number of countries, that tent to establish a comprehensive regulatory fretwork in terms of licensing of wallet providing services with respect to the cryptocurrencies. Obviously, security tokens and cryptocurrencies have the different legal status. However, the positive and negative experience can be considered. On the other side, the strong motive for the considering the "safekeeping" services content in-depth with the perspectives of regulation of the EU level is a dementalized and online nature of the STOs. The long regulatory silence, on condition of the widespread of the security tokens, can create an asymmetry among the national legislations of the member states. Moreover, the comprehensive requirements and assessment might be posed to the wallet service providers in terms of cyber-security. Since the digital nature of the tokens, without appropriate regulation might become a weakness of such phenomenon in terms of wallet providing services.

[244]European Securities and Markets Authority, "Advice on Initial coin offering and Crypto-Assets" ESMA50-157-1391, January 9, 2019: 34. Accessed by April 17, 2020 https://www.esma.europa.eu/sites/default/files/library/esma50-157-1391_crypto_advice.pdf

[245] Ibid

CONCLUSION

1. Currently, the development of the STO and FinTech industry per se is on the initial stages of development, but present advantages of that method of fundraising allow to make a strong perception about the potential and perspectives of that phenomenon. However, STO has a number of weaknesses as well it might be reconsidered from the legal point of view. Also because of the novelty of the STO and the sphere of crypto-assets as such, there is no stable terminology and a methodology whether particular tokens can be assigned to the security tokens should be conducted on the cases by cases basis. Due to the combination of the various features and functions that are embodied into the tokens it creates a number of difficulties with differentiation of blockchain based assets.

2. In general, there are no tremendously huge problems with the classification of the crypto-assets with the relevant features, as financial instruments under EU legislation. In particular, security tokens can be qualified as transferable securities under the EU law. An interpretation of that term does not exclude the security tokens out of its scope, however, due to the novelty of the security tokens and their specific nature, certain peculiarities of the definition of transferable securities might be clarified. Also, it was established there is no a lot of difference amongst EU Member states with regard to understanding and interpretation of the transferable securities in the context of security tokens. Especially, Germany, France, Malta, Luxembourg, Lithuania have generally the same approach with regard to the interpretation of that term. Moreover, willing to be opened for the development of the new technologies and fintech industry, National Competent Authorities of Lithuania and France have issued a special guideline on the topic of STOs, where expressed their treatment of that phenomenon. Thus, it can be concluded that, current legislation on both EU and national levels is sufficient with regards to the qualification of the security tokens as securities. However, a number of uncertainties and difficulties with respect to the STO are still present

3. Considering security tokens as securities are triggering the application of the relevant legal acts by which the issuance and further turnover of the traditional securities are regulated. On that scale, a number of legal problems might be faced. The key concern is that the current norms and regulations of EU capital markets Law have not been designed with taking into account the STOs. Moreover, the transborder nature of the STO, the fully online selling process of the tokens and the emergence of the participants arises a number of changes for the regulatory authorities on the one hand and restrict the development of STO's industry on the other. Such problems concern not only the issuer of security tokens or average investors but also, the other participants that are involved in trading of the tokens in the secondary markets.

4. The extent of the legal qualification of the security tokens is not restricted by the transferable securities only. Also, tokens can be arranged to have the features of the unities in the collective investment schemes. Such qualification of the tokens is triggering the application of the legislation that regulates the operation of the investment funds. A number of legal issues might be faced on that point due to the specific nature of the security tokens and opportunities that are provided such as decentralization and differentiation of the management process in such tokenized funds. With the presence of certain conditions, such investment funds might be qualified as either UCITSs or AIFs.

5. The other topics that draw a certain degree of attention with respect to the security tokens is post trading-process, and custodian services that are required by the securities legislation. On that scale, due to the emergence of the new participants, a number of legal problems and difficulties exist as well. In particular, there are some uncertainties with regard to application of the current legislation to that new participants and services that are rendering by them.

Hence, the results of that research showed that there are no fundamental problems with regards to the legal qualification of the security tokens as securities in terms of current legislation. However, even in that stage, some characteristics of the key term - “transferrable securities” are not clear with regard to the types of security tokens. At the same time, it has been identified, a number of legal problems that might be faced during the conduction and further orchestrating of STO. These problems have a formal character and can arise approximately with regards to all aspects or stages of the STO, including prospectus rules, combating the market abuse problems, or settlement process. However, all of them have the same background – current legal norms were not designed bearing in mind the security tokens and the possibilities of how the blockchain technology can be used. That aspect is present approximately, in each regulatory act that concerns securities field.

RECOMMENDATIONS

1. It is necessary to specify the legal definition and establish a classification of the security tokens as a class of the assets. Hence, the greater clarity will be achieved in terms of the crypto sphere, with respect to the differentiation of the security tokens from the other types of the crypto-assets.

2. To avoid number of difficulties, the interpretation of the features that are prescribed by the term: transferable securities should be clarified with respect to the security tokens on the EU regulatory level.

3. Certain provisions of the Prospectus Regulation might be adopted for the security tokens, especially in the context of dementalized nature of the security tokens and the online offering of such tokens to the investors. Moreover, the fact tokens sale can be conducted in the cryptocurrencies should be take into account. Also, it concerns the other aspects of the STOs in particular the adoption of the legal norms that are combating market abuse and money laundering.

4. The provisions that are regulating the functioning of the infrastructural objects such as crypto-exchanges of the security tokens, as well as, post-trade and related services should be reconsidered in terms of security token offering, especially in terms of technological opportunities of the smart contracts and blockchain and risks respectively.

5. Also, the qualification of the security tokens as units in collective investment undertakings should be regulated especially in terms of AIFs and UCITSs. Moreover, the possibilities and risks that are implied by the decreolization concerning the arrangement of the investment fund should be considered in the context of regularity changes.

ABSTRACT

That master thesis is dedicated to the regulatory problems of the Security token offering. In particular, it concerns the problems of the legal qualification of security tokens under the EU law and the legal problems and uncertainties that might be faced, during the lifecycle of the tokens. The text of the work is divided into 3 parts. The first one is concentrated around the technologies that underlying STO, the nature of that phenomenon as such, and types of the tokens. The second one is of the qualification of the security tokens under the European and national legal instruments. In that, part the focus is moved on the analyzing the terminology and the concepts are triggers the application of the securities regulations under the EU law and the law of particular countries. The third is about the regulatory framework within the scope of which, the STOs are. It includes the analysis of the regulatory requirements that are applicable to the security tokens during their lifecycle, including, the infrastructure, related services, and the aspect of the offering.

Security token offering; ICO; STO, Capital Markets Law; Security tokens; Initial coin offering;

SUMMARY

Security token offering. Legal Aspects. The following master thesis work is dedicated to the legal aspects of conduction and future orchestrating of Security token offering in the context of the EU law, and legal orders of the particular member states. The aim of that thesis is to define analyze the main problem that might be arisen during the both: qualification of the security tokens under the current laws as well as the offering, and turnover of them on the secondary markets.

That master thesis is analyzed coherently and comprehensively the Security tokens offering as a phenomenon. First of all, it includes an overview of the technologies that are behind the security tokens and the problems that are liked with their utilization form the legal point of view. Also, that overview covers identification of the peculiarities and the types of security tokens. Secondly, the focus of analysis implies the legal assessment of the theoretical and practical approaches that are established with regard to the qualification of the security tokens in the EU Law as well as in the national orders of the certain Member states. Thirdly, the research covers the legal requirements established by the various legal acts on the EU level regarding the lifecycle of the securities in the context of Security tokens offerings especially, the problems that arise on that scale and possible solutions for them.

The current regulatory framework with respect to the Security token offering phenomenon has been identified as incomplete in terms of correspondence to the challenges that are posed before it. Moreover, certain aspects of the nature of security tokens without proper regulation are able to form new problematic issues. At the same time, security tokens have a number of advantages including the resolution of the legal issues, in comparison with the traditional securities.

In general, it was identified that there are no fundamental difficulties or problems with respect to the qualification of the security tokens as securities in the EU law thermology and methodology, however, a number of ambiguities and uncertainties should be clarified. Moreover, there is a number of legal problems that might be faced on the different stages of the issuance of the tokens and their future turnover that should be regulated. It will allow to mitigate the risks and encourage the benefits that can be brought by the Security token offering.

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HONESTY DECLARATION
12/May/2020
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I, _____Zatsarynnyi Kostiantyn _____, student of
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Mykolas Romeris University (hereinafter referred to University),
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confirm that the Bachelor / Master thesis titled

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