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LIST OF ABBREVIATIONS

AML	- anti-money laundering
CJEU	- Court of Justice of the European Union
DLT	- distributed ledger technology
ECB	- European Central Bank
EU	- European Union
KYC	- know your customer
MAS	- Monetary Authority of Singapore
MiCA	- Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/193
MIFID II	- 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
OECD	- The Organisation for Economic Co-operation and Development
PSD II	- 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
SEC	- United States Securities and Exchange Commission
TFEU	- Treaty on the Functioning of the European Union
ULC	- United States Uniform Law Commission

CHAPTER 1. INTRODUCTORY REMARKS

Cryptocurrency market is currently one of the most quickly developing markets in contemporary world. Although many enthusiastic approaches of experts and consumers, its characterization to some extent still remains controversial. Lack of regulation and problems with understanding its main components and differences between the classical financial instruments among consumers and entrepreneurs may outcome in rise of possible problems related to market abuse and harm to the prospective consumers.

This thesis is focused on the provisions proposed by the European Union in order to regulate the cryptocurrency market and prevent the possible abuse of dominance of cryptocurrency traders and other market abuses. I will try to put these provisions into analysis in the light of EU competition policy and compare it with solutions already developed in other jurisdictions in order to regulate the cryptocurrency market. The explanation of blockchain technology is difficult from the legal point of view, but in the beginning of the thesis the brief definition will be set out.

First, there is a need to describe the purpose of market regulation on the cryptocurrency market, purposes of the MiCA regulation and the brief characterization of this specific market. Bitcoin, Ethereum and other digital currencies are based on Blockchain technology expected to transform dealings between businesses and making them quicker, secure and verifiable without other transaction records. Blockchain technology and cryptocurrencies raise various problems of the legal and economic nature. What is more, questions about security and privacy issues, liability of traders and jurisdiction along with potential disputes or fraud claims. Very important issue (which now have relatively minimal attention) is if the use of blockchain technology could raise competition law risks. The most crucial issue for an abuse of dominance in the cryptocurrency and blockchain area is to establish dominance of a trader. To do so, there is a need to define the relevant market in which the suspected dominant company operates. Main problem is, that the blockchain market is not ‘the market’ as such and the competition is not only among other

cryptocurrencies but also with other electronical payment technologies. Another problem arises when it comes to use of cryptocurrency for completing the transactions, because blockchain technology competes also with more traditional ways of completing the transactions. Example of ‘smart contracts’ can be considered as a good description to show such possible situation. The relevant market definition with regard to cryptocurrency/blockchain market is not obvious and consequently cannot be seen in a narrow manner and only to include blockchain.

In later part, the thesis will provide the description of cryptocurrency market and its specification worldwide and within the EU along with analysis of the market under possible regulations. The highlights put by some organizations such as OECD concerning possible abuse on the digital market will be put into analysis.

In order to properly understand the abuse of dominance on the cryptocurrency market is to understand at first the concept of market abuse and EU policy regarding competition law. The characteristic of legal institution of abuse of dominant position have to be outlined and explained. Sources of law (Article 101 and 102 TFEU) and explanation of optimal abuse tests along with relevant case law of Court of Justice of the European Union will be briefly described and confronted with the provisions concerning abuse of dominance in MiCA regulation. The current more economical approach of the EU competition policy can be considered as important with regard to cryptocurrency market and its dynamic change.

With regard to the MiCA regulation the relevant definitions has to be presented in order to clearly analyze the provisions concerning market abuse in cryptocurrency market. Title I Article 3 of the MiCA regulation consists of relevant definitions which will be provided and explained within the chapter of the thesis. First of all, the most crucial definition is the differentiation between the cryptocurrency and crypto-asset which will be explained also with regard to other sources. Another crucial issue is the definitions and characterizations of market players such as ‘issuer of crypto-assets’ and ‘crypto-asset service provider’ which has to be explained in the same wide manner in order to fully understand the complexity of these concepts, market they operate in and the regulation itself. Relevant footnote

as to Article 68 of MiCA regulation regarding operation of a trading platform for crypto-assets will be confronted with the service provider definition. Other explanation will be provided with regard to inside trading, disclosure of information, which are not included in Article 3 but have to be considered as relevant when it comes to analysis of the crucial provisions concerning market abuse.

Whole next chapter is focused on the analysis of problems concerning competition problems on market of crypto-assets and provisions included in Title VI of MiCA regulation: Prevention of Market Abuse involving crypto-assets. The articles (76 – 80) will be explained step by step with a wide references to other sources and general concepts of EU competition law and purposes of regulating it in such manner, along with references to market specification. The list of possible scenarios of market abuse such as situations where a company tries to completely prevent the adoption of a similar blockchain technology that could influence competition, potential foreclosure or blockchain company lowering the participation fees to levels that suspect predatory pricing will also be presented and referred to. Important issue is the comparison of the MiCA regulation proposal with existing legal solutions in another jurisdictions such as US and Asia, which are considered as pioneers of blockchain technology and cryptocurrencies. Brief outline and reference from the comparative perspective will help to assess the proposed European regulation as the solution to possible abuses and breaches of competition law on the new, fast developing cryptocurrency market.

Final remarks sum up all of the issues covered in the thesis along with assessment of the regulation and the future development of cryptocurrency market along with new legal challenges arising from technological revolution and possible problems related with market abuse and proper legislative reaction.

CHAPTER 2. PURPOSE OF THE REGULATION (MiCA)

Explanatory memorandum of the Proposal for the Regulation of The European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937¹, later referred as MiCA, contains the list of reasons concerning the purpose of the regulation within the market of crypto-assets and its specification. The whole proposal is considered as a part of Digital Finance package, that includes a new Strategy on digital finance for the EU financial sector.² The main aim of the package is to ensure that the European Union properly reacts to the digital revolution and *“drives it with innovative European firms in the lead, making the benefits of digital finance available to European consumers and businesses”*.³

Important part of the new EU financial strategy is providing the regime within the financial services based on distribution ledger technology (DLT)⁴ and blockchain, which will be defined later in the thesis. One of the relevant problems is that the markets providing crypto-assets and cryptocurrency services using the DLT are quickly developing, but not yet fully regulated from the legal perspective within the EU as opposite to the market of ‘classical’ financial instruments. In present situation, many EU Member States have passed the legislation on crypto-assets related branches, which outcomes in the market fragmentation⁵ and underlines the need to issue a proper and universal legal framework within the EU territory.

¹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>;

² Communication from the Commission to the European Parliament, the European Council, the Council, the European Central Bank, the European Economic and Social Committee and the Committee of the Regions on a Digital Finance Strategy for the EU, 23 September 2020, COM(2020)591.

³ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 1;

⁴ Proposal for a Regulation of the European Parliament and of the Council on a Pilot Regime for market infrastructures based on distributed ledger technology - COM(2020)594;

⁵ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 2;

What is more, most crypto-assets do not fall within the scope of the current financial services legislation on the European level. Therefore, EU has to follow the digital revolution and create a regulatory framework in order to help consumers and persist its innovation-friendly approach to business and market development.

The current trends in the digital economy are becoming more and more relevant, and the need of market regulation seems to be inevitable. An example of a current trend is the integration of online payment services like use of electronic banking network or the specified new mechanisms provided by the Payment Services Directive (EU) 2015/2366 (PSD II) for instance on the basis of online agreement.⁶ Nevertheless, PSD II regulates payment service providers, which do not issue electronic money or take deposits.⁷ The rise of use of cryptocurrencies in order to pay for the buy of the goods is being noticed since the surge of market capitalization of crypto-assets in 2017.⁸ This phenomenon now meets with the proper reaction of EU institutions with the proposal provided in order to regulate the crypto-assets market.

Crypto-assets and can be described as one of the major ways of applying blockchain technology in financial sphere. Cryptocurrencies like Bitcoin or Ethereum, as well as more than 200 other, are becoming increasingly popular, but remain problematic when it comes to providing transactions with the use of them. Despite the 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 (MIFID II)⁹, which contains the definition of “financial

⁶ D. Batorski (ed.), “Digital Economy. Key trends of the digital revolution”, http://www.euroreg.uw.edu.pl/dane/web_euroreg_publications_files/1335/cyfrowa_gospo_darka_kluczowe_trendy_rewolucji_cyfrowej.pdf of 15 June 2018;

⁷ A. Brener, “Payment Service Directive II and its implications” in “Disrupting Finance FinTech and Strategy in the 21st Century”, Theo Lynn · John G. Mooney, Pierangelo Rosati · Mark Cummins (Editors), Palgrave Studies in Digital Business & Enabling Technologies, p. 110;

⁸ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 2;

⁹ 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;

instruments”, the cryptocurrencies and other instruments based on DLT technology do not fall within the scope of that definition, although the European Parliament and the Council proposed amendments in this matter.¹⁰ Therefore, there exists a necessity for a new legal framework in order to provide decent protection for consumers and investors within the financial services with clear definitions and regulatory treatment for all aspects and types of crypto-assets that are still not covered with the existing European legislation.

From the legislative perspective, the basis for MiCA regulation has its source in internal market regulations of the EU and article 114 of TFEU, according to which the European institutions have power to issue appropriate provisions in order to approximate the laws of the EU Member States, due to their object to establish and persist the proper functioning of internal market.¹¹ Whole purpose of MiCA proposal is the exclusion of obstacles in order to improve the functioning of financial services within the internal market and harmonize the provisions concerning the crypto-asset related market branches.

In present situation, due to cryptocurrency market fragmentation and legislative inconsistency, actors of this specified market cannot take full advantage of the internal market principles within the EU. Lack of legal certainty, regulatory policy and adequate regime of the supervision on the European level outcomes with problems for both consumers and the crypto-asset service providers and crypto-asset issuers. Despite the fact that some EU Member States have already created national legislation and established regime for cryptocurrencies and crypto-asset traders, many of them still did not provide legal framework for crypto-asset service providers to safely and fairly operate.¹² Different approaches to crypto-asset services in EU Member States also raise problems with cross-border provisions. It creates

¹⁰ Proposal for a Directive of the European Parliament and of the Council amending Directives 2006/43/EC, 2009/65/EC, 2009/138/EU, 2011/61/EU, EU/2013/36, 2014/65/EU, (EU) 2015/2366 and EU/2016/2341 - COM(2020)596;

¹¹ Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (TFEU) [2016] OJ C202/1;

¹² Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 4;

inconsistence for the consumers and investors on the market. It outcomes in risks and possible problems with protection, competition and integrity of the market.

MiCA regulation is currently considered to be an answer for the needs of digital economy concerning crypto-assets and as a comprehensive legislation. This regulation will surely have significant influence on cryptocurrencies, crypto-asset services not just within the EU, but also to other states outside EEA organization, which can adjust MiCA into their legal systems.¹³ Therefore, MiCA regulation will impact the digital economy and solve many legal challenges connected with IT and competition law, which will be put into analysis in the following thesis.

¹³ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 5;

CHAPTER 3. PURPOSE OF MARKET ABUSE REGULATION REGARDING CRYPTOCURRENCIES (EU AND INTERNATIONAL)

Despite many possibilities not only to change and improve trade or the social attitude to payments and financial services, it has to be noted, that the development of blockchain and market of cryptocurrencies may rise problems, especially when it comes to the market abuse. According to Dr Thibault Schrepel, blockchain can facilitate the trade in an effective way, but *“it also presents numerous legal challenges with substantial implications for antitrust law”*.¹⁴

Other scholars hold the opinion, that attractiveness of blockchain technology and cryptocurrencies lays in the limitation or even exclusion of many transactional costs provided during the payment process.¹⁵ Digital money offers in general the “frictionless transaction”¹⁶, and when it comes to cryptocurrency, such offer has another dimension. There is also a possibility of blockchain to facilitate the contracting process and eliminate potential inadequacies due to automatization of drafting and creating contracts.¹⁷ It may be considered as advantage, but this has to be also viewed from the perspective of the competition law, which in general provides legal measures in order to protect not only consumers, but also the traders and principles of free trade. The main problem is, how to define the relevant market for the blockchain technology and therefore the relevant market of cryptocurrencies. This issue will be analyzed later.

Some institutions and international organizations like the Organization for Economic Cooperation and Development (OECD) in its report “Blockchain and Competition Policy” from 2018, stipulated the need

¹⁴ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019);

¹⁵ Russ. Roberts, and Jim Epstein, “Jim Epstein on Bitcoin, the Blockchain, and Freedom in Latin America,” Econ Talk (2017) // <http://www.econtalk.org/jim-epstein-on-bitcoin-the-blockchain-andfreedom-in-latin-america/>;

¹⁶ Jennifer Ferreira, Mark Perry “From Transactions to Interactions: Social Considerations for Digital Money” in “Disrupting Finance FinTech and Strategy in the 21st Century”, Theo Lynn · John G. Mooney, Pierangelo Rosati, Mark Cummins (Editors), Palgrave Studies in Digital Business & Enabling Technologies, p. 124;

¹⁷ Lin Cong, Zhiguo He, “Blockchain Disruption and Smart Contracts,” The Review of Financial Studies 32, 2018,: 1754;

to cope with legal challenges concerning the relation of blockchain with competition law, especially of antitrust challenges related to blockchain.¹⁸ Following this document, there are some risks of using blockchain technology to facilitate an anti-competitive market behaviors. OECD provides a list of possible actions¹⁹ that fall within the scope of market abuse or abuse of dominance.

Former propositions of OECD from its working paper²⁰ suggested, that blockchain technology goes far beyond its use in Bitcoin and other cryptocurrencies and can positively influence and transform the crucial element of trust in financial transactions. OECD also stipulated, that aim of the policy on cryptocurrencies shall encourage technologies improving competition in financial and payment system, but also ensure the verification of user's identity in use of cryptocurrencies in order to avoid the potential risks. Other suggestion was to set up minimum requirements of protection of consumers.²¹ The community of cryptocurrency users did not approve main suggestions of OECD²² due to the postulate of cancelling element of anonymity, which is considered to be one of the biggest advantages of cryptocurrencies and blockchain technology at all.

OECD focused also on the problem of antitrust challenges related to blockchain. In fact, much of the competition law in general is focused on the antitrust legal policies, but blockchain and cryptocurrencies, which are based on it are excluding the need of a fiduciary (person, who creates trust), because blockchain functions automatically and without actions of any artificial, legal or natural person.²³ It raises many questions as to effectiveness of the current competition policy, legal regime of antitrust and how to minimize legal risks in this matter, as well as the aims of competition

¹⁸ OECD Competition Division, Blockchain and Competition Policy, OECD (June 2018), <http://www.oecd.org/daf/competition/blockchain-and-competition-policy.html>;

¹⁹ Ibidem, p. 6;

²⁰ A. Blundell-Wignall, "The Bitcoin question: Currency versus Trust-less transfer technology", OECD Working Papers on Finance, Insurance and Private Pensions No. 37., 2014;

²¹ Ibidem, p. 37;

²² Matonis, J. (2014), "Why the OECD Needs to do its Homework on Bitcoin", Coin Desk, 2014, <https://www.coindesk.com/oecd-needs-homework-bitcoin>;

²³ Thibault Schrepel "Is Blockchain the death of antitrust law? The blockchain antitrust paradox." Georgetown Law Technology Review (2019), p. 283;

authorities.²⁴ Purpose of the new legal framework, including MiCA regulation shall minimize the risk of inaccuracy in times of rapid evolution of blockchain technology, before already existing regulatory solutions will become outdated, which will not leave enough protection against market abuses both for traders and consumers of the crypto-asset and cryptocurrency market.

It has to be noted, that cryptocurrencies are becoming more and more popular in financial institutions. European Central Bank (ECB) published some reports concerning cryptocurrencies in recent years (2012 and 2015). In its report from 2015²⁵ ECB included some warnings concerning cryptocurrencies and stipulated its unique character and huge difference with relation to many considered in ‘traditional’ sense. Report also raised, that cryptocurrencies does not pose risk for the global financial system and the use of blockchain technology in creation of ‘virtual money’ has many advantages in comparison with existing ‘traditional’ solutions for providing transactions.²⁶ According to ECB, the direct or indirect regulatory framework is necessary and it has to be developed on international level in order to become efficient.

Some other international entities like World Economic Forum, established a group The Future of Blockchain as one of thirty-five so-called Global Future Councils in order to analyze the possible applications of the new technology.²⁷ What is more, famous banks, among them J.P. Morgan, Royal Bank of Scotland, Credit Suisse and Goldman Sachs created the R3CEV consortium, which objective is to design and then deliver advanced blockchain technology for global financial markets.²⁸ There are many other examples of countries like Canada, Russia or India, in which state banks and technological companies are establishing consortiums and analyzing the

²⁴ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” *Georgetown Law Technology Review* (2019), p. 284;

²⁵ <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf>;

²⁶ <https://www.ecb.europa.eu/pub/pdf/other/virtualcurrencyschemesen.pdf>;

²⁷ “Blockchain and the Law”, Dariusz Szostek, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany 2019, p. 56;

²⁸ *Ibidem*, p. 57;

projects and reports concerning blockchain-based payments, introducing blockchain technology and cryptocurrencies into financial sector.²⁹

There are many economic forces, which are affecting the popularity of cryptocurrencies like Bitcoin and raise interest in it. One of such forces is competition between cryptocurrencies. In situation when price of a cryptocurrency is increasing as well as Bitcoin, it will outcome in substitution effect between Bitcoin and other cryptocurrency. However, if the price of one cryptocurrency will raise and in the same moment prices of other cryptocurrencies will decrease, the result would be an indication of reinforcement effect.³⁰ That suggests ‘winning’ dynamics in favor of that cryptocurrency. Another effect is substitution, that resulted from quality alternatives and/or dynamics of speculation.³¹ Such dynamics arise in situation when cryptocurrencies are treated as financial assets. For instance, if one cryptocurrency becomes more popular, and therefore more expensive, users may consider it as overvalued. When such attitude of users may become still, they will look for alternative investments in other cryptocurrency.

Practically, the blockchain sets two kinds of challenges when it comes to competition. First, it complicates the characterization of dominant market positions and second, it also complicates the attribution of responsibility for anti-competitive market practices.³² Such practices are expected on blockchain and risk of monopolization is also likely to occur without any legal framework considering rules prohibiting anti-competitive behavior of market actors.

Some scholars stipulate that abuse of dominant position is not likely for one particular blockchain. However, in a likely situation abuse of dominant position can be a rejection of transaction, which means, that

²⁹ M. Biella, V. Zinetti, *Blockchain Technology and Applications from a Financial Perspective*. Technical Report Version 1.0, UniCredit, 2016, p. 3, <https://www.weusecoins.com/assets/pdf/library/UNICREDIT%20-%20Blockchain-Technology-andApplications-from-a-Financial-Perspective.pdf>;

³⁰ Neil Gandal, Hanna Halaburda, “Can We Predict the Winner in a Market with Network Effects? Competition in Cryptocurrency Market”, Academic Editors: Thomas D. Jeitschko and Mark J. Tremblay, 2016, p. 7;

³¹ *Ibidem*, p. 7;

³² Christophe S. Hutchinson, Maria A. Egorova “Potential legal challenges for blockchain technology in competition law”, *Baltic Journal of Law & Politics* 13:1 (2020): p. 89, <https://content.sciendo.com/view/>;

joining the blockchain community of certain subject will not be allowed.³³ Further characterization of abuse of dominance position on the crypto-asset and cryptocurrency market will be described later.

These facts require not only economic approach and solutions from the financial perspective, but also needs to be confronted with legal issues concerning competition between cryptocurrencies and their traders. Therefore, as suggested by many scholars and organizations, uniform legal regulation is not only needed, but also inevitable due to dynamic development of digital economy.

MiCA Regulation contains whole title focused only on provisions considering prevention of potential market abuse regarding crypto-assets. Title VI of MiCA provides prohibitions and requirements put on the crypto-asset service providers and issuers and defines the scope of possible market abuse. Provisions also contain bans on market manipulation, insider dealing and unlawful disclosure of inside information.³⁴ Rules from Title VI apply to any activity of any person in relation to crypto-assets allowed to trade on trading platform, which was operated by crypto-asset service providers.³⁵ All of the provisions of articles from 77 to 80 of MiCA will be put into more detailed analysis in chapter 7.

³³ Christophe S. Hutchinson, Maria A. Egorova “Potential legal challenges for blockchain technology in competition law”, *Baltic Journal of Law & Politics* 13:1 (2020), p. 90, <https://content.sciendo.com/view/>;

³⁴ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 13;

³⁵ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 27;

CHAPTER 4. CRYPTOCURRENCY MARKET

After pointing out the existing challenges of blockchain technology and cryptocurrencies, the brief overview of the market has to be provided in order to fully understand the core issues of potential risks of market abuse and the solutions provided in MiCA regulation. Due to market specification and problem with strict definitions, some of the most crucial concepts will be put into analysis and described briefly.

4.1 Market specification

It has to be pointed out, that cryptocurrency market, based on DLT and blockchain technology is one of the most dynamic branches in FinTech industry, and is currently considered as relevant, when it comes to its future influence on the world economy. According to predictions of the World Economic Forum, in 2027 approximately ten percent of global gross domestic product will be reserved on blockchain potentialities.³⁶ The future of blockchain remains controversial and the opinions are divided, sometimes radically. Many enthusiasts share opinion, that blockchain is an innovation similar to the invention of the Internet, but skeptics consider it as technology which will disappear after short period of being seen as very promising.³⁷ However, current importance of blockchain stipulates high possibility of radical change of the trade and society, that is why legal systems also have to change in order to adjust to the new technological innovations.³⁸

The fact, that according to many specialists, the blockchain technology is still a subject of evolution and development, there is a large risk of inaccuracy³⁹ of the legal solutions. Some scholars suggest, that it can be dangerous to regulate the ‘immature’ technological innovations, because

³⁶ WORLD ECONOMIC FORUM, TECHNOLOGY TIPPING POINTS AND SOCIETAL IMPACT, SURVEY REPORT 24 (Sept. 2015)

³⁷ Lawrence Lessig, “Keynote Address at the Sydney Blockchain Workshop: Thinking Through Law & Code, Again”, (Dec. 11, 2015);

³⁸ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review, 2019, p. 281;

³⁹ Ibidem, p. 283;

such regulation “*could preclude the emergence of new and unexpected applications that have not yet been fully explored or discovered.*”⁴⁰

Nevertheless, the nature blockchain technology raises questions about how consumers will conduct the transactions.⁴¹ Therefore, purpose of regulation is clearly visible, even if it will have to be adjusted and modified due to the future development of financial services based on blockchain.

In order to properly understand the purpose of MiCA and its provisions regarding competition law, some issues have to be briefly explained. The cryptocurrency market specification is a challenge from a legal and legislative perspective due to its dynamic development and highly technological character. Specification of this market cannot be described properly without defining aforementioned basic, but crucial concepts, which are distribution ledger technology, blockchain and crypto-assets as such.

a) Distribution ledger technology

Distribution ledgers are the outcome of the development of information technology and types of decentralized networks. The term DLT was defined and used for the first time in the “Distributed Ledger Technology: beyond block chain. A report by the UK Government Chief Scientific Adviser” from 2015⁴². Following the authors’ definition, distributed ledgers are “*a type of database that is spread across multiple sites, countries or institutions, and is typically public. Records are stored one after the other in a continuous ledger, rather than sorted into blocks, but they can only be added when the participants reach a quorum. A distributed ledger requires greater trust in the validators or operators of the ledger.*”⁴³ Distributed ledger technology enables to develop ‘shared’ ledgers or bases, which are being shared by

⁴⁰ Primavera de Filippi, Aaron Wright, “Blockchain and the Law: The rule of code 209”, Harvard University Press, 2018;

⁴¹ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review, 2019, p. 284;

⁴²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf;

⁴³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf;

some entities, like consortium and layers of authorization are developed for multiple different users.⁴⁴

Main use of DLT is connected to sharing data, information and documents, but in this conception the information has higher importance than the document containing it itself⁴⁵, which is contrary to ‘classical’ legal conception of the document provided in judicature among EU Member States. Under DLT technology documents are stored and shared differently and documents are not being sent as whole files, but the data (information) is simultaneously recorded among all devices exchanging the information.⁴⁶

For the purpose of the thesis, the more relevant is the legal definition of DLT, which is not unitary and do not exists in many jurisdictions. One of the first legal definitions was provided by Gibraltar in Financial Services Regulations from 2017⁴⁷. Accordingly, DLT is “*a database system in which – a) information is recorded and consensually shared and synchronized across a network of multiple nodes; and b) all copies of the database are regarded as equally authentic.*” (point 2 of the aforementioned Regulation).⁴⁸ Another relevant, but more complex legal definition was included in Malta Digital Innovation Authority Act C901 from 2018⁴⁹, where the abbreviation DLT was described as ‘decentralized ledger technology’ and defined as “*a database system in which information is recorded, consensually shared, and synchronized across a network of multiple nodes (devices) under which software and architectures which are used in designing and delivering DLT which ordinarily, but not necessarily: a) uses a distributed, decentralized, shared replicated and ledger, b) may be public or private or hybrids thereof; c) is permissioned or permissionless or hybrids thereof; d) is immutable; e) is protected with cryptography; and f) is auditable.*”⁵⁰

⁴⁴ Dariusz Szostek, “Blockchain and the Law”, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany, 2019, p. 36;

⁴⁵ Ibidem, p. 37;

⁴⁶ Dariusz Szostek, “Blockchain and the Law”, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany, 2019, p. 36;

⁴⁷ Gibraltar Gazette, No 4401. [http://www.gfsc.gi/uploads/DLT%20regulations%20121017%20\(2\).pdf](http://www.gfsc.gi/uploads/DLT%20regulations%20121017%20(2).pdf);

⁴⁸ <http://gibraltarlaws.gov.gi/articles/2017s204.pdf>;

⁴⁹ <http://justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=29080&l=1>;

⁵⁰ <http://justiceservices.gov.mt/DownloadDocument.aspx?app=lp&itemid=29080&l=1>;

MiCA Regulation Proposal provides for its purposes very short definition of DLT, included in Article 3 point a), which uses term ‘distributed ledger technology’ and defines it as *“a type of technology that support the distributed recording of encrypted data”*⁵¹. One may argue if such definition is sufficient for regulation purposes, but from the other perspective, despite being general, it leaves many possibilities of interpretation, which can remain vital and helpful due to the complex and strictly technological character of DLT, that may rise many problems with describing and transforming it into the legal language.

b) Blockchain

Blockchain as term, was used for the first time in 2008 by IT specialists and the whole concept of blockchain technology was created in the same year and presented in a publication on cryptography titled “Bitcoin: A Peer-to-Peer Electronic Cash System”.⁵² Despite its influence and popularity, personality of the author or authors of that document hidden by the nickname Satoshi Nakamoto, remains unrevealed. In that publication, author proposed creation and introduction of electronic money, in order to allow direct P2P (peer-to-peer) payments with simultaneous elimination of the participation of public authorities in the payment.⁵³

There were many reports as to the character and specification of blockchain and its definition. For instance, in the report of British government from 2016⁵⁴ defines blockchain as a database, that is taking number of records and forming them into blocks, that are chained together

⁵¹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 34;

⁵² Satoshi Nakamoto: “Bitcoin: A Peer-to-Peer Electronic Cash System”, 2008, <https://bitcoin.org/bitcoin.pdf>;

E. Ducas, A. Wilner: “The security on financial implications of blockchain technologies: Regulating emerging technologies in Canada”, International Journal No. 72/2017, p. 544;

⁵³ “Blockchain and the Law”, Dariusz Szostek, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany, 2019, p. 40;

⁵⁴ Distributed Ledger Technology: beyond block chain. A report by the UK Government Chief Scientific Adviser, https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributedledger-technology.pdf;

with a kind of cryptographic signature. Therefore blockchains can be used like ledgers, that are shared or modified by the person with relevant permission. Report of Deloitte Australia from 2016⁵⁵ stipulates, that blockchain is a book open to distribution, which is used for sharing and recording information in peer-to-peer networks. Copies of ledgers are maintained and verified by members of the network and then the information is shared and put in ‘blocks’, being added to ‘chain’ of already existing blocks.

Creator(s) of Bitcoin referred to blockchain as a combination of technologies, that come together in purpose of creating and securing trust between people, and the combination of distribution (distributed) ledger, network protocol and cryptographic signature.⁵⁶ They also provided a list of main advantages of blockchain like decentralization (both parties to a transaction interact with each other via peer-to-peer transmissions, without any central point⁵⁷), visibility (all blockchain users can see all transactions and assets that are traded and who holds it⁵⁸), anonymity⁵⁹ (there is no need to provide e-mail address, name of the user and other personal data to download and use the blockchain network software⁶⁰) and immutability⁶¹ (if one information is stored in a ‘block’, all the network participants must agree to provide changes to it). Nevertheless, there exist some problems when it comes to trust of its potential users due to its ‘newness’ and uncertainty, also from the legal perspective. Around the world, blockchain is now considered as new tool for working in cryptocurrency, but not only.

⁵⁵ Deloitte Australia: “Bitcoin, blockchain & distributed ledgers”, <https://www2.deloitte.com/content/dam/Deloitte/au/Images/infographics/au-deloitte-technology-bitcoin-blockchain-distributed-ledgers-180416.pdf>;

⁵⁶ Satoshi Nakamoto: “Bitcoin: A Peer-to-Peer Electronic Cash System”, 2008, <https://bitcoin.org/bitcoin.pdf>;

⁵⁷ Christophe S. Hutchinson, Maria A. Egorova “Potential legal challenges for blockchain technology in competition law”, *Baltic Journal of Law & Politics* 13:1 2020, p. 81-107, <https://content.sciendo.com/view/>;

⁵⁸ *Ibidem*, p. 85;

⁵⁹ Phil Champagne, *The book of Satoshi: The collected writings of Bitcoin creator Satoshi Nakamoto* (USA: e53 Publishing, 2014), p. 51;

⁶⁰ Don Tapscott and Alex Tapscott, “A Blockchain Revolution: how the technology behind Bitcoin is changing money, business and the world”, New York: Penguin Random House, 2016, p. 38.

⁶¹ Angela Walch, “The Path of the Blockchain Lexicon (and the Law),” *Review of Banking & Financial Law* 36, 2017; p. 713;

Many apologists suggest, that use of blockchain is not limited to financial services, but its mechanism can be applied to all activities.⁶²

World Economic Forum also provides quite transparent definition of blockchain by referring to its function and process. According to that description blockchain *“allows consumers and suppliers to connect directly, removing the need for a third party. Using cryptography to keep exchanges secure, blockchain provides a decentralized database, or ‘digital ledger’, of transactions that everyone on the network can see. This network is essentially a chain of computers that must all approve an exchange before it can be verified and recorded.”*⁶³

Abovementioned definitions may still rise problems due to their semi-technological character, which may form an abstractive impression. For the legal purposes, it can be explained in comparison, that for instance a contract under seal (notarial deed) can be considered as “type of blockchain” due to its all-page-connection needed for its validity and formal obstacles to modify it.

The legal definition of blockchain was provided by some states in latest statutes concerning use of financial technology and blockchains among them. Mostly the American legislation provided useful legal definitions of blockchain. In article 5 of Act No. HB2417 on electronic transactions⁶⁴ adopted in Arizona (USA) “blockchain technology” was defined as *“distributed ledger technology that uses a distributed, decentralized, shared and replicated ledger, which may be public or private, permissioned or permissionless, or driven by tokenized crypto-economics or tokenless.”* Any data or information on the ledger is secured with cryptography and provides uncensored truth.⁶⁵ In Vermont (USA) the one of the titles of the statute of Vermont – judicial procedure (chapter 81) were changed in 2016 by broadening paragraph 1913 with the definition and some

⁶² IDC Trackers, “Worldwide Blockchain Spending Guide”, https://www.idc.com/tracker/showproductinfo.jsp?prod_id=1842;

⁶³ Rosamond Hutt, 2016: <https://www.weforum.org/agenda/2016/06/blockchain-explained-simply/>;

⁶⁴ <https://legiscan.com/AZ/text/HB2417/id/1497439>;

⁶⁵ Dariusz Szostek, “Blockchain and the Law”, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany, 2019, p. 42;

issues related to the blockchain technology.⁶⁶ According to definition of title 12 V.S.A. paragraph 1913, blockchain is *“a cryptographically secured, chronological, and decentralized consensus ledger or consensus database maintained via Internet, peer-to-peer network, or other interaction.”*⁶⁷ Statute also differentiates ‘blockchain’ and ‘blockchain technology’. Following the second definition, ‘blockchain technology’ was described as *“computer software or hardware or collections of computer software or hardware, or both, that utilize or enable a blockchain”*.⁶⁸ Important is, that this provision was related to the court procedure and provided the possibility to use the records and evidence in a trial notwithstanding their ‘blockchain character’⁶⁹ and such direction related to legal aspects of using blockchain seems to be technological-friendly.

Two years after abovementioned novelization of V.S.A., in 2018 the state of Vermont adopted new statute S. 269 Act Related to Blockchain Business Development⁷⁰ and repeated ‘blockchain definition’ from the former act. What is more, new definition of ‘blockchain technology’ was added. Following the new definition, ‘blockchain technology’ is *“computer software or hardware or collections of computer software or hardware, or both, that utilize or enable a blockchain.”*

Not only in the USA some legal framework concerning blockchain was introduced, although the Anglo-Saxon legislature seemed to react the most quickly on the development of blockchain technology. In Europe, there are also several states, which adopted laws regarding financial services that use blockchain technology. For instance, Gibraltar adopted Financial Services Regulation in 2017, but this act did not define ‘blockchain’ as such. Point 10 of the statute defines rather DLT, as system of databases within which the information is recorded, saved, shared and then synchronized in a network of devices and all the data files are treated as equally authentic.⁷¹

⁶⁶ 12 V.S.A. § 1913, <https://legislature.vermont.gov/statutes/section/12/081/01913>;

⁶⁷ Ibidem;

⁶⁸ Ibidem;

⁶⁹ Dariusz Szostek, “Blockchain and the Law”, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany, 2019, p. 43;

⁷⁰ <https://legislature.vermont.gov/Documents/2018/Docs/ACTS/ACT205/ACT205%20As%20Enacted.pdf>;

⁷¹ Gibraltar Gazette, No 4401. [http://www.gfsc.gi/uploads/DLT%20regulations%20121017%20\(2\).pdf](http://www.gfsc.gi/uploads/DLT%20regulations%20121017%20(2).pdf);

Another interesting legal solution in the matter of blockchain was provided in Belarus. In 2017 the decree No. 8 of the President of Belarus on the development of digital economy⁷² specified the general aspects and principles of digital economy in Belarus and the rules of adopting foreign technological solutions. Decree also allowed the cryptocurrency operations and exchanges in one of its appendixes⁷³, which provided the definition of ‘transaction block ledger’ – (‘blockchain’), which is described as “*a sequence of blocks with information about operations performed in such a system built on the basis of given algorithms in a distributed decentralized information system using cryptographic methods of information protection.*”⁷⁴ What is interesting, decree provides additional legal definition of ‘mining’ related to blockchain and cryptocurrencies. This regulation has to be considered as very modern in meeting the needs of the digital economy users. It may seem as surprise, especially in a country, that is said to have problems with economic development. What is more, such solutions as definition of ‘mining’ and its introduction to legal system are not observed in other foreign legislations.

MiCA regulation do not provide the definition of blockchain. Nevertheless, the definition of DLT and very detailed list of definitions connected with crypto-assets and may seem sufficient due to the fact, that all cryptocurrencies and crypto-assets are based on blockchain technology and the EU authorities did not put the blockchain definition in the regulation on purpose, in order not to complicate the provisions with providing another term which is from its nature connected to the scope of the regulation proposal.

All of the provided definitions do not contain one aspect, which shall be bore in mind when talking about blockchain. There are some types of blockchains, and the main difference between them lays in their visibility, which means whether the data stored in blockchain is private or public and

⁷² <http://law.by/document/?guid=3871&p0=Pd1700008e;>

⁷³ Ibidem, Appendix no. 2;

⁷⁴ Ibidem, Annex no. 1, point 8;

whether the access to it is opened for all of the users.⁷⁵ Public blockchain (sometimes also referred to as ‘open’ or ‘permission-less’) is opened to all users. There is a need to implement the governing protocol on the computer and user can remain anonymous by using only the identifier that can be tracked by the transaction-based ledger. Every user can also propose block of transactions to be added to open (public) blockchain.⁷⁶ There are also no territorial or personal limitations as to entering to the database and installing software. Public one is the most known and popular type of blockchain, because it is a foundation of Bitcoin, which still is regarded as the most common and popular cryptocurrency. Bitcoin is a public ledger, that do not have any ‘owner’ and it is not possible to block the entrance into transaction to any user.⁷⁷

Private blockchain (also referred as permissioned one) on the contrary restricts permissions to entrance for the users. Devices are checked by the central authority and the data can be seen only for the members of the private network.⁷⁸ Such type of blockchain can be used by banks for interbank transactions or transferring accounts for insurance providers.⁷⁹ In this system there are devices which contain a copy of the ledgers and other devices just with elements of the ledgers.

Some scholars define also the ‘hybrid’ type of blockchain⁸⁰, that uses the private network and public blockchain in order to use cryptocurrencies. Nevertheless, this type of blockchain is not relevant to the present analysis, due to its theoretical character.

⁷⁵ Christophe S. Hutchinson, Maria A. Egorova “Potential legal challenges for blockchain technology in competition law”, *Baltic Journal of Law & Politics* 13:1 (2020): p. 86, <https://content.sciendo.com/view/>;

⁷⁶ *Ibidem*, p. 86;

⁷⁷ Dariusz Szostek, “Blockchain and the Law”, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany, 2019, p. 52;

⁷⁸ Christophe S. Hutchinson, Maria A. Egorova “Potential legal challenges for blockchain technology in competition law”, *Baltic Journal of Law & Politics* 13:1 (2020): p. 87, <https://content.sciendo.com/view/>;

⁷⁹ *Ibidem*, p. 87;

⁸⁰ V. Morabito, “Business Innovation Through Blockchain”, p. 8;

c) Characteristics and types of crypto-assets

It has to be noted, that all cryptocurrencies are crypto-assets, but not all crypto-assets are cryptocurrencies. Crypto-asset is a broader definition, that includes not only cryptocurrencies, but it has the same features in a token that serves as ‘store of value’ and can transfer its value. Network consists of tokens and also second layers, which enable performance of other functions.⁸¹ Following this explanation, cryptocurrency can be described as a ‘store of value’ and a method of transfer of that value among all users of the currency.

According to MiCA regulation, crypto-asset is *“a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology”*.⁸² This definition clearly suggests, that every asset, that has its own value and can be represented digitally and stored by use of IT solutions can be considered as being a ‘crypto-asset’. It is a ‘catch-all’ definition, created in line with recommendations of Financial Action Task Force (FATF)⁸³ and not containing any exhaustive list of crypto-assets, which positively stays opened for interpretation and future development of crypto-assets. It has to be underlined, that crypto-asset has no physical presence, it can be a code or something similar that exists only in the digital representation. ‘Crypto-asset’ is a broad word, but such broad definition of it is required to consider quick development and cover the whole spectrum of virtual assets.⁸⁴ Every cryptocurrency is a crypto-asset, because it has no physical form (like note) but only digital representation with certain market value. Generally speaking, cryptocurrency is virtual or digital money in the form of tokens or

⁸¹ <https://www.machrie.co.za/crypto-currency-vs-crypto-assets/>;

⁸² Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 34;

⁸³ “Public consultation on FATF draft guidance on a risk-based approach to virtual assets and virtual asset service providers”, March 2021, <https://www.fatf-gafi.org/publications/fatfrecommendations/documents/public-consultation-guidance-vasp.html>, FATF Recommendations 2012 (As amended October 2020), <https://www.fatf-gafi.org/publications/fatfrecommendations/documents/fatf-recommendations.html>;

⁸⁴ <https://www.lawsociety.ie/gazette/in-depth/crypto-assets/>;

‘coins’.⁸⁵ This type of currency is always cryptographically secured, and therefore it is almost impossible to counterfeit them, which is being described as an important advantage of cryptocurrencies.

Article 2(2) of MiCA regulation contains exceptions from the scope of its applications by providing list of crypto-assets, that are exempted from the regulation.⁸⁶ Among them, there are electronic money as defined under E-Money Directive⁸⁷, except whether qualified as an electronic money token, under MiCA regulation.⁸⁸ ‘Electronic money token’ is defined as “*a type of crypto-asset the main purpose of which is to be used as a means of exchange and that purports to maintain a stable value by referring to the value of a fiat currency that is legal tender*”, which suggests, that cryptocurrencies fall within the scope of the regulation. This description also stipulates another crucial quality of cryptocurrency: it has a stable value referred to the legally accepted fiat currency. Cryptocurrencies like Bitcoin are referred to fiat currency, mostly to USD. Bitcoin fluctuates, but still maintains value in reference to fiduciary money, which depends on the market tendencies.

In cryptocurrencies, the word ‘crypto’ refers to formerly mentioned cryptography, which allows to create and process the digital currencies and transactions made with use of them in a decentralized system (network).⁸⁹ Any cryptocurrency is from its nature typically developed as a code by IT teams, that build mechanisms of issuance. Cryptocurrencies like Bitcoin or Ethereum, are based on blockchain technology, which has a crucial function. Following the description of World Economic Forum “*blockchain stores the details of every transaction of the digital currency, and the*

⁸⁵ <https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/>;

⁸⁶ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 32;

⁸⁷ Directive 2009/110/EC;

⁸⁸ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 34;

⁸⁹ <https://www.investopedia.com/tech/most-important-cryptocurrencies-other-than-bitcoin/>;

technology stops the same Bitcoin being (duplicated and) spent more than once.”⁹⁰

Technology behind cryptocurrencies make them different from any other currency system ever created. Important issue related to cryptocurrencies is ‘mining’, which means the process of creating them and it is a crucial core of them.⁹¹ ‘Miners’ provide some kind of computational power to secure the network and validate all transactions. They collect the posted transactions in the block and then they are rewarded in respective currency they are mining for⁹², which may seem similar to the old and classic approach to gold mining. ‘Miners’ compete with each other to add their block of transactions to the blockchain.⁹³ Each ‘miner’ has to solve a problem, that involves prime numbers in order to succeed. First ‘miner’, who solves the problem, add his or her block of transactions to the chain and obtains a reward in the form of new Bitcoins.⁹⁴ In spite of some differences, all cryptocurrencies function in the similar way. This technology gives the highest level of cybersecurity due to aforementioned computational capacity provided by ‘miners’.⁹⁵

Currently, in the year 2021 there is more than 4.000 cryptocurrencies on the market. Among them the most common cryptocurrencies like Ethereum (ETH), Litecoin (LTC), Tether (USDT) and Stellar (XLM). Despite such amount of various cryptocurrency, Bitcoin as a pioneer cryptocurrency invented and introduced in 2008 still remains the most popular asset among consumers and providers.

⁹⁰ Rosamond Hutt, 2016: <https://www.weforum.org/agenda/2016/06/blockchain-explained-simply/>;

⁹¹ Lukas M. König. “Price Formation in the Cryptocurrency Market. A Hypotheses Driven Econometric Analysis of Cryptocurrency Price Determinants”, Diplomica Verlag, 2019, p. 26;

⁹² Ibidem, p. 26;

⁹³ Neil Gandal, Hanna Halaburda, “Can We Predict the Winner in a Market with Network Effects? Competition in Cryptocurrency Market”, Academic Editors: Thomas D. Jeitschko and Mark J. Tremblay, 2016, p. 4;

⁹⁴ Ibidem, p. 4;

⁹⁵ Dariusz Szostek, “Blockchain and the Law”, 1st Edition 2019, Nomos Verlagsgesellschaft, Baden-Baden, Germany, 2019, p. 59;

Bitcoin and other cryptocurrencies is the form of digital currency, that is held electronically.⁹⁶ First ever practical use of blockchain, took place in order to create Bitcoin cryptocurrency as element of Bitcoin software.

The characteristics of Bitcoin and many other cryptocurrencies make it unique in comparison with the government-based currency. Variety of advantages raised by its users and creators is still possessing many enthusiasts. Anonymity, financial freedom, its decentralized and timeous character are some of the advantages⁹⁷ that are mostly raised in order to encourage prospective Bitcoin users. Blockchain technology that is supporting Bitcoin network is decentralized and distributed in order to sustain attack from other computational powers as well as from the potential shutdown from plenary power.⁹⁸ The unit of Bitcoin provides and maintains integrity and security of the blockchain.⁹⁹ Therefore, they cannot be treated separably.

4.2 Cryptocurrency in the light of MiCA regulation

In order to define the legal nature of cryptocurrency, two approaches were proposed. First of them, proposes to equate it with the existing legally regulated objects (for example securities or foreign currency) and create regulations concerning certain specifics of cryptocurrency as new variant of classical object.¹⁰⁰ Second approach, suggests introduction of cryptocurrency into legislation and characterizing it as new object of regulation and create the cryptocurrency legislation from scratch.¹⁰¹

Analysis of MiCA regulation clearly suggests, that EU followed the second approach, by creating another legislation focused only on crypto-assets and regarding them as a new phenomenon in digital economy, that requires special provisions due to its specific character. Formerly mentioned

⁹⁶ <https://www.machrie.co.za/crypto-currency-vs-crypto-assets/>;

⁹⁷ <https://www.machrie.co.za/crypto-currency-vs-crypto-assets/>;

⁹⁸ Andrew Haynes, Peter Yeoh, "Cryptocurrencies and Cryptoassets Regulatory and Legal Issues", 2020, Informa Law from Routledge, p. 99;

⁹⁹ Ibidem, p. 99;

¹⁰⁰ O.S. Bolotaeva, A.A. Stepanova, S.S. Alekseeva "The Legal Nature of Cryptocurrency", IOP Conf. Series: Earth and Environmental Science 272, 2019, 032166, IOP Publishing, doi:10.1088/1755-1315/272/3/032166;

¹⁰¹ Ibidem, p. 2;

definition of crypto-asset included in MiCA is describing it broadly, but in harmony with the EU crypto-asset industry regulations. Crypto-asset was alternatively substituted across the EU in recent years with words like 'virtual asset', 'cryptocurrency', 'virtual currency' and 'digital currency'.¹⁰² Term and definition included in MiCA seems to be final and most suitable in order to maintain consistency in cryptocurrency market regulations. Some types of crypto-assets are also defined in article Article 3(1) points 3 to 5, like electronic money tokens, asset-referenced tokens and utility tokens.¹⁰³ Cryptocurrencies fall within the scope of the definition of crypto-assets and MiCA seems to be an uniform regulation for cryptocurrency market.

What is relevant, article 3(2) of MiCA regulation gives power to the European Commission to adopt delegated acts in order to modify all provided definitions and adjust them to technological development and market changes.¹⁰⁴ Therefore, MiCA regulation seems to be uniformly applicable in a broad way and gives many ways of adjustment to the digital market progress.

4.3 Cryptocurrency market in the EU and regime for all crypto-assets

Most countries reacted to the dynamic change within the digital market and tried to regulate and settle cryptocurrency financial services. Many of them are mainly focused on tax issues, licensing operations regarding use of cryptocurrencies and creating proceedings to avoid potential criminal transactions connected with financing terrorism with use of virtual currency.¹⁰⁵ Some scholars criticize such approach and hold the opinion, that digital rights, 'smart contracts' and money have to become

¹⁰² "MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation" Xreg Consulting working paper, 2020, p. 8;

¹⁰³ Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty (Text with EEA relevance), <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32003R0001>;

¹⁰⁴ "MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation" Xreg Consulting working paper, 2020, p. 8;

¹⁰⁵ O.S. Bolotaeva, A.A. Stepanova, S.S. Alekseeva "The Legal Nature of Cryptocurrency", IOP Conf. Series: Earth and Environmental Science 272 (2019) 032166, IOP Publishing, doi:10.1088/1755-1315/272/3/032166;

objects of civil rights in order to properly regulate cryptocurrencies within the legal system.¹⁰⁶

In some jurisdictions, Bitcoin has been related to transactions on black market, tax evasion and illegal financing of crime as well as money laundering.¹⁰⁷ In many countries, like China, the governments are providing policies in order to restrict, regulate or even ban the Bitcoin and its use or sale.¹⁰⁸ Other countries on the contrary are acting in order to provide legal and financial certainty due to the possible advantages of Bitcoin and attempt to integrate it with the existing financial system. MiCA regulation proposal is a clearly visible evidence, that the EU authorities as well as Member States are pursuing the second approach, which seem to be more business and consumer friendly. Current lack of uniform regulations among regulatory approaches of many countries covering cryptocurrencies may rise questions as to universality, liquidity and longevity.¹⁰⁹

The legal basis on which it is possible to own and sale crypto-assets and cryptocurrencies seemed to be neglected.¹¹⁰ States focused primarily not on the legal risks, but rather on problematic issues considering taxation, security and insurance risk. In common law countries for example, the approach characteristic for system of bailment was considered as existing basis for cryptocurrencies which can be treated parallelly due to crypto wallets that store cryptocurrency secured by private electronic key.¹¹¹ It is likely that the courts in common law countries will apply the principles of

¹⁰⁶ S. A. Timofeev „An attempt to legalize cryptocurrencies: will the state dare?“ [Electronic resource]. Zakon.ru, https://zakon.ru/discussion/2018/03/29/popytka_legalizacii_kriptovalyut_reshitsya_li_gos_udarstvo;

¹⁰⁷ J. Bloomberg, “Using Bitcoin or Other Cryptocurrency To Commit Crimes? Law Enforcement Is Onto You”, Forbes, 2017, www.forbes.com/sites/jasonbloomberg/2017/12/28/using-Bitcoin-or-other-cryptocurrency-to-commit-crimes-law-enforcement-is-onto-you/#4e623af93bdc;

¹⁰⁸ S. Leng, “Why has China declared war on Bitcoin and digital currencies?”, South China Morning Post (SCMP), 2017, www.scmp.com/news/china/economy/article/2111456/why-has-china-declared-war-Bitcoin-and-digital-currencies;

¹⁰⁹ Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020, Informa Law from Routledge, p. 21;

¹¹⁰ Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020, Informa Law from Routledge, p. 21;

¹¹¹ Micheler, E. and Davies, S., “The future of money and the impact of Fintech and cryptocurrencies”, London School of Economics. Speech at conference, London, 2018;

bailment conceptions to digital assets.¹¹² Alternatively, the law of trust can be applied with regard to cryptocurrency in common law jurisdictions.

In civil law countries, the law of agency can be considered as suitable, which can have an uniform element due to similar principles of the law of agency in most states. Such structures similar to one another can be construed under existing rules regarding agency law.¹¹³ Nevertheless, the legal status of cryptocurrency is a question that arises from such solutions. The brief comparative analysis of legal solutions concerning cryptocurrencies under MiCA and other jurisdictions will be provided in chapter 8.

Another question is the risk of scale. Present blockchain-based systems are slow and the one transaction by use of Bitcoin lasts couple of minutes in average. In comparison to scale of Visa, which daily performs almost 150 million of transactions within few seconds, scale of Bitcoin transactions still remain relatively small.¹¹⁴ Therefore, blockchain-based systems have to perform larger amount of transactions to compete with already existing financial software solutions. From technical point of view, the computers need to have bigger capacity to handle more transactions, which requires capital investments borne by the users.¹¹⁵ Some scholars propose to solve this problem by creating payment channels, that do not require the validation by users.¹¹⁶ Currently, this area still remains uncertain.

Another question is the competition between one and other blockchain-based system and the legal regulation concerning it, which will be later referred to in next chapters of the thesis.

¹¹² Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020, Informa Law from Routledge, p. 25;

¹¹³ Ibidem, p. 25;

¹¹⁴ Daily Hodl, Blockchain Info, “Bitcoin Charts” <https://blockchain.info/charts/n-transactions>; (2018), “Cryptocurrency Transaction Speeds: The Complete Review”, The Daily Hodl, 28/07/2018, <https://dailyhodl.com/2018/04/27/cryptocurrency-transaction-speeds-the-completereview/>;

¹¹⁵ Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020, Informa Law from Routledge, p. 26;

¹¹⁶ J. Poon, T. Dryja, “The Bitcoin Lightning Network: Scalable Off-Chain Instant Payments”, Lightning network, 2016;

CHAPTER 5. MARKET ABUSE AND ABUSE OF DOMINANCE IN EU COMPETITION LAW

In order to properly analyze the solutions provided in MiCA regulation, there is a need to refer to already existing regulatory solutions and provisions of competition law on EU level. Further analysis of MiCA provisions concerning protection against potential market abuse has to be done in the light of definitions and case law provided by the CJEU and European authorities. The present chapter will focus on brief description of EU approach to protect actors of the free market against unfair competition and abusive actions.

Primarily, EU competition law applies to ‘undertakings’ defined by CJEU as “*every entity engaged in an economic activity, regardless of the legal status of the entity or the way in which it is financed*”.¹¹⁷ This definition is independent from any national rules and definitions of a business entity and it is based on the effects. It means, that the most crucial question is, if any business entity performing specific tasks has an economic impact on the market by providing goods and services.¹¹⁸ What is more, any economic entity can be treated as an ‘undertaking’ when it performs other functions, but fall outside the scope of competition law, while performing other roles.¹¹⁹ It means, that any economic entity can be considered as an ‘undertaking’ when performing other actions, but does not fall within the scope of competition law.

5.1 Sources of law and relevant case law

Main source of the EU competition law is included in TFEU¹²⁰. Articles 101 and 102 include provisions concerning competition rules of European internal market, which were not changed since the Treaty of

¹¹⁷ C-41/90, *Höfner and Elser v. Macrotron GmbH*, ECLI:EU:C:1991:161, para. 21;

¹¹⁸ D. Chalmers, G. Davies, G. Monti “European Union Law. Text and Materials”, Cambridge University Press, 4th ed., 2019, p. 919;

¹¹⁹ C-113/07, *Selex Sistemi Integrati v. Commission and Eurocontrol*, ECLI:EU:C:2009:191;

¹²⁰ Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (TFEU) [2016] OJ C202/1;

Rome¹²¹ from 1957. Article 101 sanctions anti-competitive agreements, while the following article is crucial to understand the EU policy regarding market abuses.

But TFEU provisions, there are also some procedural rules created in order to enforce abovementioned articles, which are Council Regulation 1/2003¹²² and Directive 2014/104/EU¹²³ (so called Damages Directive). Another vital rules concerning mergers between undertakings are included in Council Regulation 139/2004.¹²⁴

Article 102 is primarily focused on the prohibition of market abuses and contains the catalogue of such abuses, which may consist of “*directly or indirectly imposing unfair purchase or selling prices or other unfair trading conditions; limiting production, markets or technical development to the prejudice of consumers; applying dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage; and making the conclusion of contracts subject to acceptance by the other parties of supplementary obligations which, by their nature or according to commercial usage, have no connection with the subject of such contracts.*” It has to be noted, that his catalogue has a closed character. Article 102 contains also the provision banning abuse of dominance.

Generally speaking, competition policy of the EU are aimed to sanction anti-competitive behavior, that directly harms consumers and their welfare and former also the integration of internal market, as its basis. This main idea is based on economic analysis and more economic approach, that the consumer welfare shall be the only goal of the whole competition policy

¹²¹ EC Treaty (Treaty of Rome, as amended) art 3b, <https://www.europarl.europa.eu/about-parliament/en/in-the-past/the-parliament-and-the-treaties/treaty-of-rome>;

¹²² Council Regulation (EC) No 1/2003 of 16 December 2002 on the implementation of the rules on competition laid down in Articles 81 and 82 of the Treaty (Text with EEA relevance), <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32003R0001>;

¹²³ Directive 2014/104/EU of the European Parliament and of the Council of 26 November 2014 on certain rules governing actions for damages under national law for infringements of the competition law provisions of the Member States and of the European Union (Text with EEA relevance), https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.349.01.0001.01.ENG;

¹²⁴ Council Regulation (EC) No 139/2004 of 20 January 2004 on the control of concentrations between undertakings (the EC Merger Regulation) (Text with EEA relevance), <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A32004R0139>;

of the EU authorities, that was changed in past thirty years. Nevertheless, the approach of CJEU still remains more conservative and influenced more by issues of the functioning of European internal market, which arises from the relevant case law, that will be later provided.

Crypto-asset service providers have to be considered as ‘undertakings’ under the definition provided in the aforementioned CJEU case *Höfner and Elser v. Macrotron GmbH*.¹²⁵ This judgement, including definition of an undertaking as main entity falling within the scope of competition law was one of the crucial cases regarding the scope of application of article 102 of TFEU. Independence of the definition from any national legal definitions of undertakings confirms the primary character of EU competition law over the national provisions. Same approach is followed in MiCA regulation provisions defining main actors of cryptocurrency market. Among examples of undertakings, extended by list provided in *Höfner* case are public owned companies and state agencies performing economic activities. There are also some other relevant cases that extended the list of possible entities¹²⁶, that can be considered as undertakings.

One of the most crucial terms in the competition law in general is the ‘relevant market’. It can be seen as a basic concept to identify the competition relations between companies. Defining a relevant market is the first step in order to analyze each case from the competition law perspective and then assess the market share and market power. Relevant market consists of two dimensions, one of them is the product market, which covers products intangible for the consumers. Another dimension is the geographic market, which can have different sizes (national, regional, European etc.), and where the conditions of competition among the companies (undertakings) that produce the same product are the same and homogenous.¹²⁷ Following the definition provided by the CJEU in the Case 27/76, *United Brands vs. Commission*, relevant market includes product and

¹²⁵ C-41/90, *Höfner and Elser v. Macrotron GmbH*, ECLI:EU:C:1991:161, para. 21;

¹²⁶ C-250/92, *Göttrup Klim v. DLG*, ECLI:EU:C:1994:413; *Becu*, C-22/98, ECLI:EU:C:1999:419;

¹²⁷ Renato Nazzini, “The Foundations of European Union Competition Law”, Oxford University Press 2011;

geographic market and should be defined from the consumers' point of view in terms of sustainability.¹²⁸ Relevant market with relation to blockchain technology may rise some problems, which will be addressed in chapter 7 of the thesis.

Another crucial concept of competition law is the dominant position and its abuse, banned in the article 102 TFEU. There are two cumulative conditions in order to assess the violation of article 102 TFEU: undertaking (company) has to enjoy 'dominant position' within the relevant market and commit an abuse, from the non-exhaustive list of abuses provided in the article.¹²⁹ CJEU defined the term of dominant position in the case *Hoffmann-La Roche & Co. AG v Commission of the European Communities*. According to this judgement "*dominant position relates to a position of economic strength enjoyed by an undertaking which enables it to prevent effective competition being maintained on the relevant market by affording it the power to behave to an appreciable extent independently of its competitors, its customers and ultimately of the consumers*".¹³⁰ Accordingly, dominance means, that an undertaking has the power and possibility to harm the competition, by harming consumers or competitors. In fact, there are various degrees of dominance, because some undertakings face no competitive constraint due to their power, but some dominant undertakings can face competition from others, because "*they are strong enough to keep the smaller competitors at bay*".¹³¹ As mentioned above, dominance is measured in two steps: by considering the undertaking's market share and by other factors used to confirm the undertaking's position in relation to its competitors and consumers.¹³²

¹²⁸ United Brands Company and United Brands Continentaal BV v Commission of the European Communities, Case 27/76, European Court Reports 1978-00207, ECLI:EU:C:1978:22;

¹²⁹ Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (TFEU) [2016] OJ C202/1;

¹³⁰ Hoffmann-La Roche & Co. AG v Commission of the European Communities, Case 85/76, European Court Reports 1979 -00461, ECLI identifier: ECLI:EU:C:1979:36;

¹³¹ D. Chalmers, G. Davies, G. Monti "European Union Law. Text and Materials", Cambridge University Press, 4th ed., 2019, p. 953;

¹³² 322/81, *Nederlandsche Banden-Industrie Michelin NV v. Commission*, ECLI:EU:C:1983:313;

There are two types of abuse of dominance, one is exclusionary and the second one exploitative. Exploitative abuse is aimed to customers of dominant undertaking for instance by setting excessive prices. In formerly mentioned case 27/76, *United Brands vs. Commission*, CJEU stipulated, that price can be considered as excessive when it stays without any reasonable relation with the economic value of the product.¹³³

Exclusionary abuse relates to all abuses that are aimed to affect the rivals of the undertaking (company) in a negative way. Banning exclusionary abuse is described by some scholars as extension of article 102 TFEU.¹³⁴ Judgement of CJEU in the case C-95/04 P *British Airways plc v. Commission*,¹³⁵ is described as an example of conservative approach to abuse of dominance performed by the EU authorities. CJEU provided very strict criteria for assessing the exclusionary effects of abuse of dominance, among them bonuses and discounts. Another type of possible exclusionary abuse is predatory pricing, referred to in Case 62/86 *AKZO Chemie BV v. Commission of the European Communities*.¹³⁶ According to this judgement, prices below “average variable costs by means of which a dominant undertaking seeks to eliminate a competitor must be regarded as abusive.”¹³⁷ What is more, if the prices below average total costs (fixed and variable costs), but above average variable costs are determined in order to eliminate the competitor, have to be regarded as abusive.¹³⁸

In case Case C-7/97 *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft mbH & Co. KG and Mediaprint Anzeigengesellschaft GmbH & Co. KG.*, CJEU stipulated the so-called ‘essential facility doctrine’, which means, that the dominant company, that owns ‘essential facility’ is obliged to grant the competitor an access to the

¹³³ *United Brands v. Commission*, 27/76, ECLI:EU:C:1978:22, paras. 250–2;

¹³⁴ T. G. Kattenmaker and S. C. Salop, ‘Anticompetitive Exclusion: Raising Rivals’ Costs to Achieve Power Over Price’, 1986, 96 Yale LJ 20;

¹³⁵ *British Airways plc v. Commission*, C-95/04 P, ECLI:EU:C:2007:166;

¹³⁶ *AKZO v. Commission*, 62/86, ECLI:EU:C:1991:286;

¹³⁷ D. Chalmers, G. Davies, G. Monti “European Union Law. Text and Materials”, Cambridge University Press, 4th ed., 2019, p. 958;

¹³⁸ *Ibidem*, p. 958;

market when he satisfies three cumulative conditions.¹³⁹ Those three conditions are: denial of access to essential facility is “*likely to eliminate all competition*” within the relevant market; replication of certain essential facility is impossible; and there are no ‘objective justifications’ for the dominant company to refuse the access.¹⁴⁰

The aforementioned judgement is crucial for the further analysis of the abusive practices on blockchain based markets. There are also some cases that referred to similar issues, like T-374/94, T-375/94, T-384/94, and T-388/94, *European Night Servs. Ltd. (ENS) v. Commission* or case T-301/04, *Clearstream Banking AG v. Comm'n*,¹⁴¹ but the Oscar Bronner as one of the most important judgements regarding EU competition law will be referred to in Chapter 7, while analyzing potential market abuses related to crypto-assets.

5.2 EU approach to market abuse

It has to be noted, that approach of the EU authorities to the market abuse has been changed in recent years, which can be observed in the case law. The main goal of the more economic approach (instead of former legalistic one) is the consumer’s welfare and effect based on economic analysis.¹⁴²

Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings from 2009 (OJ C45/7)¹⁴³ decided to harm only the abuses that are most harmful for the consumers and focus on the exclusionary abuses, instead of exploitive ones. What is more, objective is to sanction only

¹³⁹ *Oscar Bronner GmbH & Co. KG v. Mediaprint Zeitungs- und Zeitschriftenverlag GmbH & Co. KG, Mediaprint Zeitungsvertriebsgesellschaft GmbH & Co. KG and Mediaprint Anzeigengesellschaft mbH & Co. KG.*, Case C-7/97, para 41, ECLI: ECLI:EU:C:1998:569;

¹⁴⁰ *Ibidem*, para 41;

¹⁴¹ T-374/94, T-375/94, T-384/94, and T-388/94, *European Night Servs. Ltd. (ENS) v. Commission*, 1998 E.C.R. II-3141; Case T-301/04, *Clearstream Banking AG v. Comm'n*, 2009 E.C.R. II-3155;

¹⁴² D. Chalmers, G. Davies, G. Monti “European Union Law. Text and Materials”, Cambridge University Press, 4th ed., 2019, p. 963;

¹⁴³ Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, 2009, OJ C45/7, <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0224%2801%29;>

abuses, which foreclose the market for competitors and such foreclosure has to be proved. According to the Guidance, the dominant company has possibility to justify the committed abuse if it generates possible efficiencies for the consumers.¹⁴⁴ This document also applied the so-called ‘As Efficient as Competitor’ (AEC) test, which reduced the scope of application of article 102 TFEU and remained controversial for a long time.¹⁴⁵ The AEC test was applied to all exclusionary practices, which are rebates, tying and bundling, predatory pricing, margin squeeze and refusal to deal.

Response of CJEU to the Guidance is included in cases like C-23/14 *Post Danmark A/S v. Konkurrenceradet*¹⁴⁶ and C-413/14 P *Intel Corporation Inc. v. Commission*¹⁴⁷, in which the Court approved the Commission’s initiative¹⁴⁸ and required to analyze the undertaking’s dominant position on the relevant market, share of the market covered by the abusive practice, conditions and arrangements for granting the rebates, their duration and amount.¹⁴⁹ It is also required to assess the possible existence of a strategy aiming to exclude competitors that are at least as efficient as the dominant undertaking from the market.¹⁵⁰

Change from legalistic to more economic approach is considered to be more business friendly and in the times of high influence of the new technologies on the economy and its quick development seems to be an answer for so called revolution like use of blockchain technology. MiCA regulation provisions regarding market abuse can be also described as following such approach.

Bearing in mind the abovementioned general principles, provided in the sources of EU competition law and policy will make the further analysis

¹⁴⁴ Guidance on the Commission’s Enforcement Priorities in Applying Article 82 of the EC Treaty to Abusive Exclusionary Conduct by Dominant Undertakings, 2009, OJ C45/7, <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52009XC0224%2801%29>, para 28-31;

¹⁴⁵ D. Chalmers, G. Davies, G. Monti “European Union Law. Text and Materials”, Cambridge University Press, 4th ed., 2019, p. 964;

¹⁴⁶ *Post Danmark A/S v. Konkurrenceradet*, C-23/14, ECLI:EU:C:2015:651;

¹⁴⁷ *Intel Corporation Inc. v. Commission*, C-413/14 P, ECLI:EU:C:2017:632;

¹⁴⁸ E. Rousseva and M. Marquis, ‘Hell Freezes Over: A Climate Change for Assessing Exclusionary Conduct under Article 102 TFEU’ (2012) *Journal of European Competition Law and Practice*, 32;

¹⁴⁹ D. Chalmers, G. Davies, G. Monti “European Union Law. Text and Materials”, Cambridge University Press, 4th ed., 2019, p. 965;

¹⁵⁰ *Intel Corporation Inc. v. Commission*, C-413/14 P, ECLI:EU:C:2017:632;

easier. The already existing solutions has to be seen in line with the new proposals of provisions regarding specific market based on blockchain regulation. Such approach, based on the cumulative use of both already existing and new rules seems to be necessary in order to form an efficient system for the proper regulation of crypto-asset and cryptocurrency market.

CHAPTER 6. RELEVANT DEFINITIONS OF MICA REGULATION

As already mentioned in chapter 3 section 4.1 subdivision c)¹⁵¹, MiCA regulation contains broad, but appropriate definition of crypto-assets. Most popular cryptocurrencies like Bitcoin and Ethereum fall within the meaning of ‘crypto-assets’ provided in the regulation. Nevertheless, in order to properly analyze the provisions regarding market abuses, brief explanation of crucial definitions is required.

6.1 Crypto-asset service providers and issuers of crypto-assets

Article 3(1) point 8 of MiCA regulation includes terms related to main actors on cryptocurrency market, which are ‘crypto-asset service provider’ and ‘crypto-asset issuer’. Accordingly ‘crypto-asset service provider’ is defined as *“any person whose occupation or business is the provision of one or more crypto-asset services to third parties on a professional basis”*. Provision suggests ‘person’ which term is within its primary, non-legal meaning not limited to entities, but also to individuals, probably sole proprietors. Nevertheless, since individuals do not apply within the scope of the competition law (in comparison to term ‘undertaking’ as defined in case *Höfner and Elser v. Macrotron GmbH*¹⁵²), this can be treated as any legal person *“engaged in an economic activity, regardless of the legal status of the entity or the way in which it is financed”*¹⁵³ and within the understanding provided by other relevant case law. ‘Person’ has to run a business comprising of performing at least one crypto-asset service and it has to perform the service professionally. Another remark is the term ‘third party’ in context of the regulation. This term seems to be referred to the consumers, but not to other entities like banks (including ECB, EIB and central banks of Member States) and public

¹⁵¹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>;

¹⁵² C-41/90, *Höfner and Elser v. Macrotron GmbH*, ECLI:EU:C:1991:161, para. 21;

¹⁵³ *Ibidem*, para. 21;

international organizations, because they fall out of the scope of MiCA regulation.¹⁵⁴

‘Crypto-asset service’ is a term included in article 3(1) point 9¹⁵⁵, that provides also a list of types of such services. Construction and wording of this provision suggests, that the list has closed character. All services which can be provided are “(a) the custody and administration of crypto-assets on behalf of third parties; (b) the operation of a trading platform for crypto-assets; (c) the exchange of crypto-assets for fiat currency that is legal tender; (d) the exchange of crypto-assets for other crypto-assets; (e) the execution of orders for crypto-assets on behalf of third parties; (f) placing of crypto-assets; (g) the reception and transmission of orders for crypto-assets on behalf of third parties (h) providing advice on crypto-assets.” Provided list is wider than the services included in the FATF Recommendations on virtual asset services¹⁵⁶ and stays in line with other current regimes on crypto-asset services.

Some terms from the list may rise questions about certainty, but they can be considered more understandable within the general definitions provided elsewhere in financial regulations. ‘Custody’ visibly relates for example to electronic wallet providers. Exchange of services fiat-to-crypto (fiduciary money exchange) and crypto-to-crypto, as well as execution, placing, reception and transmission of orders is understandable from economical and also lingual perspective. Nevertheless, all terms from the list are defined in the following provisions of article 3(1) points from 10 to 17¹⁵⁷, which leaves no doubt as to what the services regarding crypto-assets are. Despite the exhaustive character of the list, the provision still seems to

¹⁵⁴ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 32;

¹⁵⁵ Ibidem, p. 32;

¹⁵⁶ Public consultation on FATF draft guidance on a risk-based approach to virtual assets and virtual asset service providers, March 2021, <https://www.fatf-gafi.org/publications/fatfrecommendations/documents/public-consultation-guidance-vasp.html>;

¹⁵⁷ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>;

be leaving some space for interpretation of the actions, that can be described for instance as ‘providing advice’. Such solution stays in line of whole regulation which has technological-development-friendly character. The broad and uniform applicability of MiCA regulation gives possibility to extend already long list of crypto-asset services to include new types of services¹⁵⁸, in situation of prospective innovation in this specific sector.

‘Issuer of crypto-asset’ is defined as *“legal person who offers to the public any type of crypto-assets or seeks the admission of such crypto-assets to a trading platform for crypto-assets”*.¹⁵⁹ Provided definition leaves no doubt, that only legal entity can be considered as issuer of crypto-assets. Therefore, as a legal entity, issuer is identifiable, which gives a certainty for prospective users of crypto-assets. ‘Issuers’ are able to offer ‘any type of crypto-assets’, among them electronic money tokens, asset-referenced tokens and utility tokens, which are defined in Article 3(1) points 3 to 5.¹⁶⁰ According to article 16 of MiCA regulation, issuer of crypto-assets have to obtain an admission and authorization in order to offer asset-referenced tokens and apply for it to the competent authority in its home Member State. Further requirements of the application are specified in article 16(2) and article 15 of MiCA. Definition of ‘consumer’ of crypto-assets also leaves no doubt, that only natural persons (*“any natural person who is acting for purposes which are outside his trade, business, craft or profession”*¹⁶¹) can be considered as user of crypto-assets within the MiCA regulation.

It also has to be noted, that all crypto-assets, which are not covered elsewhere in other legislation considering financial services and e-money tokens fall within the scope of MiCA regulation.¹⁶²

What is also relevant to be noted is the concept of ‘operations of trading platforms’, included in article 68 of MiCA regulation. According to

¹⁵⁸ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 8;

¹⁵⁹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>;

¹⁶⁰ Ibidem, p. 8;

¹⁶¹ Ibidem, p. 9;

¹⁶² “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 8;

this provision, any crypto-asset service provider, that is authorized to operate on a ‘trading platform for crypto-assets’ is obliged to lay down and comply with the specific rules, listed in section 1 point a) to h) of the provision¹⁶³, such as setting the requirements, rules of due diligence, and approval processes, setting the fair trading rules, defining exclusion categories, requirements of suspension and settling the transactions on the DLT. The operating rules for each crypto-asset service provider must include minimum due diligence standard, as well as procedures and policies regarding liquidity and fees seem to be very relevant in light of the regulation.¹⁶⁴ The construction of the rule, that stipulate the operating rules shall contain ‘at least’ the listed points, clearly suggests that the provided list has a non-exhaustive character.

Article 68 of MiCA regulation comprises of many more obligations for crypto-asset service providers, and among them important reference to Title VI, which includes provisions concerning competition. In fact, operating on platforms for crypto-assets is absolutely basic type of operation concerning trade involving cryptocurrencies and other assets. Section 9 of article 68 obliges any crypto-asset service provider authorized to operate on the platform for crypto-assets to ensure, that *“their fee structures are transparent, fair and non-discriminatory and that they do not create incentives to place, modify or cancel orders or to execute transactions in a way that contributes to disorderly trading conditions or market abuse as referred to in Title VI”*. As an outcome, crypto-asset service providers must ensure, that the trading systems are resilient and have appropriate capacity to operate under market stress.¹⁶⁵

¹⁶³ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>;

¹⁶⁴ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 25;

¹⁶⁵ Ibidem, p. 25;

6.2 Disclosure of information and insider dealing

Disclosure of information is included in provisions of Title VI of MiCA regulation and banned as unlawful market abuse in article 79. This refers to unlawful disclosure of ‘inside information’, which term is explained in article 3(1) point 27. Following the definition, *“any information of a precise nature that has not been made public, relating, directly or indirectly, to one or more issuers of crypto-assets or to one or more crypto-assets, and which, if it was made public, would be likely to have a significant effect on the prices of those crypto-assets”*¹⁶⁶

Generally, title VI covers the requirement to disclose inside information to the public. Nevertheless, there are some offences set out in the rules, which are market manipulation, unlawful disclosure of inside information and insider dealing.¹⁶⁷

‘Insider dealing’ is prohibited in article 78 of title VI of MiCA regulation and is related to the abovementioned definition of information, relevant to conducting business. Subject of insider dealing is this specific information, which can be used in order to acquire or dispose of crypto-asset to which this information relates.

Brief explanation of the abovementioned terms will simplify the understanding of provisions regarding market abuse. The full description and analysis of the rules provided in title VI of MiCA regulation in context of EU competition rules will be made in the next chapter.

¹⁶⁶ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 9;

¹⁶⁷ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 27;

CHAPTER 7. COMPETITION ON CRYPTOCURRENCY MARKET AND ANALYSIS OF PROVISIONS OF THE MICA REGULATION CONCERNING MARKET ABUSE

Before the strict analysis of the rules provided by MiCA regulation, there is a need to describe relation of blockchain to the competition law. As mentioned before in the thesis, blockchain is decentralized, anonymous, and immutable. Due to this fact, there are some questions arising as to the ability to detect anticompetitive practices on the market and their perpetrators.¹⁶⁸

Currently, public attention is focused on competition between technological companies like Google, Amazon and Uber, but competition between blockchain and non-blockchain platforms and applications is very likely as well.¹⁶⁹ Different companies and foundations, which are providing crypto-asset and cryptocurrency services are aspiring to lead the market, which is not a surprise. Intensity of that competition suggests, that dominant blockchain technology related crypto-assets are not secured on their dominant position. There are many synergies affecting blockchains in order to maintain their dominant position.¹⁷⁰ Therefore, abuse of dominance is one of the biggest risks on this specific market, which MiCA regulation tries to minimize.

Network effects in digital sectors like blockchain can be both direct and indirect.¹⁷¹ The more technology is being used, the more new potential consumers are joining the group as users.¹⁷² As mentioned before in the thesis, in blockchain, the data is public and shared by DLT system. In the outcome of that spreading information about blockchain existence is made in order make users share information on it and make it effective against

¹⁶⁸ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review, 2019, p. 285;

¹⁶⁹ Juan Manuel Sánchez-Cartas, & Gonzalo León, “Multisided Platforms and Markets: A Literature Review”, 2019, https://www.researchgate.net/publication/325225786_Multisided_Platforms_and_Markets_A_Literature_Review [<https://perma.cc/M6FQ-DLS6>];

¹⁷⁰ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review, 2019, p. 296;

¹⁷¹ Matthew T. Clements, “Direct and Indirect Network Effects: Are They Equivalent?”, INT’L J. INDUS. ORG. 633, 2004, p. 22;

¹⁷² Cf. John M. Newman, Complex Antitrust Harm in Platform Markets, CPI ANTITRUST CHRON. 3, 2017;

third parties.¹⁷³ Normally, network effects are made due to the real connection between the amount of users and the utility of the service or product, but blockchain functions differently, by “*adding financial utility, when the application utility is low*”.¹⁷⁴ Network effects in blockchain can be described as “token effects”¹⁷⁵, due to the differences in the functioning of blockchain technology. Due to the “token effect”, blockchain is likely to set up a new rules of competition and it can also explain why the public DLT currencies have been very volatile¹⁷⁶. For example, in 2014 Bitcoin was 18 times more volatile than Euro currency.¹⁷⁷

Blockchain is very likely to pose a competition to traditional platforms due to the described “token effect”, which do not need ‘middle-market companies’ to run.¹⁷⁸ According to the creator of Ethereum, other than Bitcoin significant cryptocurrency, “*blockchains will drop search costs, causing a kind of decomposition that allows you to have markets of entities that are horizontally segregated and vertically segregated.*”¹⁷⁹ Expectations are, that the competition will be shifted to the ‘end users’, which will be problematic for big technological companies, because in the transactions they offer, they are in fact middleman companies.¹⁸⁰ There are also opinions, that blockchain may lead to the reduction of usefulness of such middleman companies. For example, user may identify himself by

¹⁷³ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281, (2019), p. 297;

¹⁷⁴ Chris Dixon, “Crypto Tokens: A Breakthrough in Open Network Design, MEDIUM, 2017, <https://medium.com/@cdixon/crypto-tokens-a-breakthrough-in-open-networkdesign-e600975be2ef> [https://perma.cc/DR23-ZNWJ];

¹⁷⁵ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review, 2019, p. 298;

¹⁷⁶ June Ma, Joshua S. Gans & Rabee Tourky, “Market Structure in Bitcoin Mining”, NAT’L BUREAU ECON. RES., 2018, https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3103104 [https://perma.cc/P9FPDUW2];

¹⁷⁷ David S. Evans, “Economic Aspects of Bitcoin and Other Decentralized Public-Ledger Currency Platforms”, Coase-Sandor Inst. for L. & Econ. Working Paper No. 685, 2014;

¹⁷⁸ DARCY ALLEN, CHRIS BERG & MIKAYLA NOVAK, BLOCKCHAIN: AN ENTANGLED POLITICAL ECONOMY APPROACH 13, 2018;

¹⁷⁹ <https://qz.com/1075124/ethereum-founder-vitalik-buterin-discusses-initial-coin-offerings-the-consensus-algorithm-and-the-most-interesting-apps/>;

¹⁸⁰ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review, 2019, p. 300;

connecting to Bitcoin instead of logging by some social network, like Facebook.¹⁸¹

When it comes to blockchain technology and crypto-asset market, there is a problematic question about defining the relevant market, and then also about the definition of dominant positions, while considering abuse of dominance. Generally speaking, definition of relevant markets is a basic tool to define competition between companies by taking into account the geographical and material issues. In relation to market of crypto-assets it can be challenging. Competition authorities under current legal rules may have problems with defining relevant market and problems with investigation against ‘Internet giants’, because the dominant position will not be properly shown.¹⁸² The relevant market has to be properly defined in order to sanction only the companies performing dominant market practices.

Referring to abuse of dominance, blockchain technology can facilitate anti-competitive behavior in some ways. As mentioned in Chapter 3, the OECD highlighted some possible scenarios regarding the abuse of dominance in crypto-assets and cryptocurrency market. For instance, a company may try to completely prevent or delay the use or adoption of a similar blockchain technology, which can enhance competition.¹⁸³ Private blockchain may also exclude other companies from becoming its users or raise the participation costs. This may lead to a potential foreclosure and can be described as price manipulation. When it comes to price, a company with a blockchain technology may also lower the participation fees to the amount, that rises suspicion of predatory pricing.¹⁸⁴ Another example provided by OECD is the new bank, that wants to join existing blockchain for providing payments, but is refused access on discriminatory ground.¹⁸⁵ These examples of anti-competitive behaviour prove, that some companies may

¹⁸¹ Steven Johnson, *Beyond the Bitcoin Bubble*, N.Y. TIMES MAG., 2018, <https://www.nytimes.com/2018/01/16/magazine/beyond-the-bitcoin-bubble.html>;

¹⁸² Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 *Georgetown Law Technology Review*, 2019, p. 300;

¹⁸³ Dimitris Sinaniotis „Blockchain and its competition law risks”, 2018, <https://www.lexology.com/library/detail.aspx?g=531fd59d-9d3c-44e5-bce4-b2b6c8e6e726>;

¹⁸⁴ *Ibidem*;

¹⁸⁵ OECD Competition Division, *Blockchain and Competition Policy*, OECD (June 2018), <http://www.oecd.org/daf/competition/blockchain-and-competition-policy.html>;

aim to prevent other (alternative) blockchains from operating in the market by using the dominant position.

The basic difficulty is, what the dominant position in relation to crypto-assets really means, since the main sphere of trade is located on the trading platforms for crypto-assets and takes place virtually. While analyzing competition between the crypto-asset service providers, there is a need to focus on defining the relevant market that potentially dominant company operates in. The main issue is to establish dominance in any area, the blockchain area in this case. The problem is, that blockchain is not a market as such, it competes with other crypto-assets and cryptocurrencies, but also with other technologies used for electronic payments.¹⁸⁶ Furthermore, in case that blockchain may be used in completing transactions, such as smart contracts, it competes also with other ‘classical’ ways of completing transactions. Some practitioners hold the position, that the relevant market would not be defined in a narrow manner, to include only blockchain, due to the early stage of market development and the competition with other electronic payment technologies. Consequently, the existing creators of blockchain will not be regarded as dominant players automatically¹⁸⁷, because of the possible problems with defining a dominant position. Therefore, MiCA regulation do not contain any definition of the relevant market, which shall be based on the principles of EU competition law and the case law of CJEU to define the facts and relevant market by each case with the use of tests, already provided by the European authorities.

There is also a potential risk of collusion and abusing an economic position within the blockchain due to the reliance on the technology, that includes big data, due to the aim of digital economy businesses to develop and maintain the strong position among their competitors.¹⁸⁸ The CJEU stipulated in the judgement in the case C-74/14 *Eturas*,¹⁸⁹ that collusion can

¹⁸⁶ Dimitris Sinaniotis „Blockchain and its competition law risks”, 2018, <https://www.lexology.com/library/detail.aspx?g=531fd59d-9d3c-44e5-bce4-b2b6c8e6e726>;

¹⁸⁷ Ibidem;

¹⁸⁸ Nicolas Petit, Pieter Van Cleynenbreugel, „EU Competition Law and the Digital Economy, Protecting Free and Fair Competition in an Age of Technological (R)evolution”, The XXIX Congress in The Hague, 2020, Congress Publications Vol. 3, Eleven International Publishing, 2020;

¹⁸⁹ CJEU, C-74/14, *Eturas*, EU:C:2016:42;

also occur in the digital context and what is more, the blockchain can be used to facilitate collusion.¹⁹⁰ Such actions are considered in the majority of jurisdictions as an object anti-competitive practice. One possibility is situation, when all the competitors on the market may use the same blockchain, while other possibility is, that each company will use its own private blockchain. In the first scenario, the transparency can be helpful to identify the deviations and punishments for them. Transparency is crucial to help the identification of the terms that can collude, such as market shares or price.¹⁹¹ While referring to transparency, there is a need to regulate the exchange of information between blockchain participants in order to assess which information can be revealed to other competitors and omit to share information that could be used to facilitate price fixing.¹⁹²

Many scholars, including Dr Thibault Schrepel focuses on the unilateral practices of blockchain, that could be carried out in the blockchain area, due to the fact of a change of form of running business of the company affected by technology.¹⁹³ Generally speaking, unilateral practices are the conducts of anti-competitive character perpetrated by the company, that holds a dominant position¹⁹⁴ on the market. Relevant concern of competition and antitrust are the blockchain platforms and the software, that is operating on it, addresses the different types of anti-competitive practices¹⁹⁵, among them the practices “*committed via the blockchain itself as a platform*” and practices “*committed via the applications working on the blockchain*”.¹⁹⁶

As mentioned before, blockchain may compete with ‘traditional’ platforms for electronic payment because of the ‘token effect’ and lack of requirement of middle-market companies. Blockchain complicates the

¹⁹⁰ Dimitris Sinaniotis „Blockchain and its competition law risks”, 2018, <https://www.lexology.com/library/detail.aspx?g=531fd59d-9d3c-44e5-bce4-b2b6c8e6e726>;

¹⁹¹ OECD Competition Division, Blockchain and Competition Policy, OECD (June 2018), <http://www.oecd.org/daf/competition/blockchain-and-competition-policy.html>;

¹⁹² Dimitris Sinaniotis „Blockchain and its competition law risks”, 2018, <https://www.lexology.com/library/detail.aspx?g=531fd59d-9d3c-44e5-bce4-b2b6c8e6e726>;

¹⁹³ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 285;

¹⁹⁴ Ibidem, p. 285;

¹⁹⁵ Peder Østbye, „The Case for a 21 Million Bitcoin Conspiracy”, 2018, p. 3;

¹⁹⁶ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 295;

characterization of dominant market position and attribution of responsibility for practices, that are anti-competitive.¹⁹⁷ From its nature, blockchain is decentralized and the decentralized organizations cannot be considered as legal entities.¹⁹⁸ As described in Chapter 5, CJEU stipulated in case C-41/90, *Höfner and Elser v. Macrotron GmbH* that the ‘undertaking’ has to be ‘an entity’. So the problem arise if blockchain can hold a dominant position and create monopoly not being an entity. If the dominance is assigned, another problem arises as to the liability for the abusive practices. The way in which dominant position of blockchain is defined, the scope of liability will be determined by the characteristics of dominant position.¹⁹⁹ There are some theories proposed by some scholars as to solve the problem of defining dominance and addressing liability. One of the theories suggests to evaluate dominance of blockchains on the amount of its users and in such situation the liability for anti-competitive actions will be imposed on all of the blockchain users²⁰⁰, that can be considered as ‘collective dominant position’. Nevertheless, under EU competition law, collective dominance implies the economic links between ‘undertakings’, that may enable them “to adopt the same line of action on the market”, as provided in the judgement in the case C-68/94, *France v Comm’n*.²⁰¹ Such links do not exist in blockchain technology and therefore this theory of characterization of dominance was rejected. Other theory, seemed as only proper solution, focuses on the determination of market power based on products and services. Under such approach, the market power of blockchain is assessed in comparison with other digital services and products along with potential ‘traditional’ (not-digital) alternatives.²⁰² Consequently, the market power of blockchain will be evaluated on the same way as the online sales, integrated

¹⁹⁷ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 301;

¹⁹⁸ John M. Newman, „Procompetitive Justifications in Antitrust Law”, IND. L.J., 2019, p. 94;

¹⁹⁹ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 302;

²⁰⁰ Ibidem, p. 303;

²⁰¹ Case C-68/94, *France v Comm’n*, 1998 E.C.R. 1-1375;

²⁰² Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 304;

with the general sales market, including physical sales.²⁰³ For example, in case *Google Shopping*, No. 39740 market definition was concluded by comparison of the totality of interchangeable products and services.²⁰⁴ While considering the geographical dimension of the relevant market, only the individual analysis for each case is possible, due to the fact that some of the blockchains applications are competing globally, while some of them are focused only on local markets. The abovementioned solution is based on the classical definition of the relevant product markets and seems to be the right solution, without further complications of a very complex and new area from both legal and economic perspective.

Abuse of dominance consists of different unilateral practices in the crypto-asset area, such as exclusion, discrimination or exploitation. There is also distinction between private and public blockchain and the governance design of the private one is enabling the trading platform to be observed and controlled by one or few users. On the contrary, it is not possible to implement unilateral strategies on public blockchain, so the anticompetitive practices can be observed more likely on the private blockchains.²⁰⁵ As described in Chapter 4, there is also other difference between the types of blockchain. All information and transactions on public blockchain are visible by all of the users, while on private blockchain they can be seen only by its users. Therefore, amount of anticompetitive behaviours is lower on the public blockchains due to its greater transparency among users.²⁰⁶

An example of exclusionary abuse is ‘refusal to deal’, which is a quite common practice outside digital economy, already analyzed by case law of the CJEU, in cases like *Oscar Bronner* or T-374/94, T-375/94, T-384/94, and T-388/94, *European Night Servs. Ltd. (ENS) v. Commission*,²⁰⁷ and can be considered as characteristic for private blockchain. With relation

²⁰³ Christophe S. Hutchinson, Maria A. Egorova “Potential legal challenges for blockchain technology in competition law”, *Baltic Journal of Law & Politics* 13:1 (2020), p. 92, <https://content.sciendo.com/view/>;

²⁰⁴ *Google Shopping*, No. 39740, 2017, E.C.R. para. 145;

²⁰⁵ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 *Georgetown Law Technology Review* 281 (2019), p. 307;

²⁰⁶ *Ibidem*, p. 308;

²⁰⁷ C-7/97, *Oscar Bronner v. Mediaprint Zeitungs und Zeitschriftenverlag*, 1998 E.C.R. I-7796; Cases T-374/94, T-375/94, T-384/94, and T-388/94, *European Night Servs. Ltd. (ENS) v. Commission*, 1998, E.C.R. II-3141;

to blockchain, the ‘refusal to deal’ refers to refusal to grant general access, when users can restrict who enters the blockchain and provide transaction or for instance smart contract.²⁰⁸ Company, which owns private blockchain may be prohibited from providing access conditions, that create exclusionary effect. It shall be considered, if refusing access to the blockchain comply with the antitrust law.²⁰⁹

Other examples which are considered as abusive in relation to blockchain are predatory innovation and predatory pricing. The term innovation can be defined as “*the implementation of a new or significantly improved product (good or service)*.”²¹⁰ Therefore, any modification of the blockchain can be considered as innovative. In such situation the predatory innovation, which is “*the alteration of one or more technical elements of a product to limit or eliminate competition*”²¹¹ may occur. Predatory innovation is not in fact innovative, because it does not bring a real improvement for the consumers and is in fact anticompetitive practice, that eliminate competition and simultaneously does not give any benefits for users and consumers.²¹² The effective regime on protection against predatory innovation shall be implemented, due to its possibility to be a common practice expected on private blockchains. Even the creators of cryptocurrencies highlighted, that “*the consortium or company running a private blockchain can easily, if desired, change the rules of a blockchain, revert transactions, modify balances, etc.*”²¹³, which underlines this problem. Such actions like predatory innovation that can be implemented on private blockchains is dangerous for the competition, and the adaptation of legal rules on that matter shall be taken into consideration.

²⁰⁸ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 310;

²⁰⁹ “Blockchain: Competition Issues in Nascent Markets”, NORTON ROSE FULBRIGHT, 2016, <http://www.nortonrosefulbright.com/knowledge/publications/143554/blockchaincompetition-issues-in-nascent-markets>;

²¹⁰ OECD & EUROSTAT, OSLO MANUAL: GUIDELINES FOR COLLECTING AND INTERPRETING INNOVATION DATA 146 (3rd ed. 2005);

²¹¹ Thibault Schrepel, “Predatory Innovation: The Definite Need for Legal Recognition”, SMU Science & Technology. Law Review, 19, 2018, p. 22;

²¹² Ibidem, p. 22;

²¹³ Vitalik Buterin, “On Public and Private Blockchains”, Ethereum Blog, 2015, <https://blog.ethereum.org/2015/08/07/on-public-and-private-blockchains/>;

Predatory pricing is another common anticompetitive practice, which can be described as attempt to eliminate smaller competitor from the market by undercutting its prices. Predatory pricing is also referred to in case law of CJEU²¹⁴, but while referring to blockchain, pricing may occur in the form of costs of transaction fees, when any user submits the transaction in order to register it to the chain.²¹⁵ Such practice is very likely on private blockchain due to the possibility to modify the protocol and accordingly the price can be changed in response to the pricing of competitor. Company, owning private blockchain can offer low transaction fees for its users in order to eliminate other blockchains from the market. Analysis of predatory pricing, including test of average variable costs provided by CJEU in case 62/86 *AKZO v. Commission*,²¹⁶ should be applied also in blockchain context.²¹⁷

Following the types of market abuses, very common in normal markets are the discriminatory practices. Generally speaking, discriminatory abuse occurs, when companies are applying “*dissimilar conditions to equivalent transactions with other trading parties, thereby placing them at a competitive disadvantage.*”²¹⁸ Most common practice is the price discrimination, which means selling the same product to different customers “*at a price or prices such that the ratio of price to marginal costs is different in different sales.*”²¹⁹ In fact, price discrimination favors certain customers by charging them with different price for the same product or charging only some customers in the same manner for different products. Such discriminatory pricing may happen on private blockchains, because it can motivate users to be active on the blockchain by offering lower prices.²²⁰ This may outcome in potential discrimination claim for other users.

²¹⁴ For instance: C-202/07 P, *France Télécom v. Comm’n*, 2009 E.C.R. I-2369;

²¹⁵ “See How Do Ethereum Smart Contracts Work?”, Coindesk, <https://www.coindesk.com/information/ethereum-smart-contracts-work/>;

²¹⁶ *AKZO v. Commission*, 62/86, ECLI:EU:C:1991:286;

²¹⁷ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 316;

²¹⁸ Robert O’Donoghue & A. Jorge Padilla, “The Law and Economics of Article 102 TFEU”, 2013, p. 789;

²¹⁹ Richard Posner, “Antitrust Law”, 2^d ed., 2001, p. 79–80;

²²⁰ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 321;

Last type of market abuses, that shall be considered, are exploitative abuses, because they are very likely to be implemented on blockchain. Such exploitative practices are prohibited, especially in the field of digital markets,²²¹ despite some jurisdictions do not prohibit them (such as in the USA). Article 102(a) of the TFEU refers to unfair purchase or selling prices as well as other unfair trading conditions. Exploitative abuse is the direct or indirect imposing of unfair conditions on existing customers or suppliers.²²² In the field of blockchain, this abuse can be created by ‘dual blockchain environment’. One for the consumers who pay the most and the ones who pay less and “*whose transactions may lag behind as a result.*”²²³ Exploitative abuse is likely to occur, when one blockchain imposes unfavorable measures on another blockchain or when creators of blockchain provide services in exchange for preferential treatment.²²⁴ Due to the still on-going dynamic evolution of blockchain, scholars do not pay too much attention to such abuse²²⁵, but this type of market abuse will surely be the subject of many cases and discussions within the legal doctrine.

Following the abovementioned problems, MiCA regulation addresses the liability and abuse of dominance not to the blockchain technology itself, but to the crypto-asset service providers and sets standard rules for trading platforms for crypto-assets to comply with. Not every issue is covered in the provisions included in MiCA regulation, but the provided rules shall be considered as a part of the EU competition system. The special character of the regulation, which concerns the market of cryptocurrencies and crypto-assets cannot be seen separately from the general principles and rules provided in TFEU and the judgements of CJEU regarding competition issues. MiCA regulation is an example of ex-ante sector regulation, which

²²¹ Harry First, “Exploitative Abuses of Intellectual Property Rights”, in “The Cambridge Handbook of Antitrust, Intellectual Property and High Tech, ed. Roger D. Blair & D. Daniel Sokol 2017, p. 222;

²²² Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union (TFEU) [2016] OJ C202/1;

²²³ Falk Schöning & Myrto Tagara, “Blockchain: Mind the Gap! Lessons Learnt from The Net Neutrality Debate and Competition Law Related Aspects”, 3 Concurrences, 2018, p. 6;

²²⁴ Peder Østbye, “The Adequacy of Competition Policy for Cryptocurrency Markets”, 2017, p. 26;

²²⁵ Thibault Schrepel “Is Blockchain the death of antitrust law? The blockchain antitrust paradox.” 3 Georgetown Law Technology Review 281 (2019), p. 320;

aims at preventing market abuses in the market of crypto assets. Article 102 of TFEU sanctions ex-post abuses that distort competition in the market. Current solutions regarding competition law complemented by the new provisions regarding specific part of the digital market are likely to form the transparent and efficient system.

Part of MiCA regulation concerning competition rules is included in the whole Title VI²²⁶, which comprises of four articles. All the rules concerning market abuse provided in MiCA regulation apply to any activity performed by any person in relation to crypto-assets admitted to trade on a trading platform, that is operated by an authorized crypto-asset service provider, or for which a request to trading on such platform has been applied.²²⁷ On the contrary to the article 102 of TFEU, competition provisions of MiCA regulation focus on the prevention of market abuses, instead of setting enforcement steps.

Article 76 defines the scope of market abuse, and according to it, all requirements provided in Title VI are applied to acts carried out by *“any person and that concern crypto-assets that are admitted to trading on a trading platform for crypto-assets operated by an authorised crypto-asset service provider, or for which a request for admission to trading on such a trading platform has been made.”*²²⁸ It is clear, that only the ‘persons’ admitted to trade on the platform provided by authorized service provider. Persons have to be operating only on this specific platform in order to be subject to the following provisions of the MiCA regulation.

Articles 77 and 79 shall be seen in connection, because the main subject of both of them is the ‘inside information’. Following the definition of ‘inside information’, already described in chapter 6 of the thesis and

²²⁶ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 100;

²²⁷ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 8;

²²⁸ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 100;

provided in article 3(1) point 27²²⁹, it is the information of a very precise nature, which has not been made public, and which directly or indirectly relates to one or more crypto-asset issuers or crypto-assets. In situation, that inside information about certain crypto-assets is made public, it would affect the prices of those crypto-assets.²³⁰ Under article 77 issuer of crypto-assets is obliged to inform the public about inside information which is concerning them “*as soon as possible*”. The information must concern the public in a manner that enables the public an access to that information easily and to assess the information “*in a complete, correct and timely manner.*” Issuer of crypto-assets have to ensure that the information reaches as many people as possible and allows the public the proper assessment.²³¹ Issuers of crypto-assets are also responsible for any delay of the disclosure of inside information to the public under three cumulative conditions. These conditions are, that: “*(a) immediate disclosure is likely to prejudice the legitimate interests of the issuers; (b) delay of disclosure is not likely to mislead the public; (c) the issuers are able to ensure the confidentiality of that information.*”²³² It is visible, that all the conditions are related to the welfare of the actors of the market, both for issuers and the consumers, referred to as the ‘public’. This provision stays in line with the liberal approach of the EU, which aims to the ‘welfare of consumers’, but also to the exclude the negative effect for the issuers of crypto-assets. That is why they are allowed to delay the disclosure under certain conditions.²³³

Article 79 is strictly connected with article 77 and prohibits the unlawful disclosure of inside information to any other person. Disclosure of

²²⁹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 9;

²³⁰ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 27;

²³¹ Ibidem, p. 27;

²³² Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 9;

²³³ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 27;

inside information can occur only in the normal exercise of an employment, profession, or duties. Any other circumstances of disclosure need to be considered as unlawful. This conception included in both aforementioned provisions has a very strict character.

As described in Chapter 6, article 78 of MiCA regulation prohibits ‘insider dealing’ and is related to the definition of information provided and explained in article 3(1) point 27²³⁴. Any information, including information about the clients which can be considered as relevant to conducting business is a subject of insider dealing. Article 78 covers all of the relevant information, which can outcome in acquisition or disposal of crypto-assets by any other person or third party. This can be done both directly or indirectly for the persons own account or on the account of any third party.²³⁵ What is more, also recommendation, as well as inducing of other person to become engaged in insider dealing is prohibited in the same way as insider dealing as such.²³⁶

Last, but most crucial provision of article 80 of MiCA regulation provides prohibition of market manipulation and contains list of potential market abuses. According to the list provided in section 1 of the following article market abuse comprises of actions like entering into a transaction, placing an order to trade, or any behaviour, which gives or is likely to give false or misleading signals as to the price, supply or demand for a crypto-asset (point a). This prohibition can be excluded only for the ‘legitimate reasons’.²³⁷ This concept of ‘legitimate reasons’ is very broad and not defined nowhere in the MiCA regulation. Most probably, such wording construction suggests that the authors of the regulation aimed to leave the decision in that matter to the Non-competition authorities in order to define the ‘legitimate reasons’ on the basis of each case. Another prohibition

²³⁴ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 101;

²³⁵ “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 27;

²³⁶ Ibidem, p. 27;

²³⁷ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 101;

contained in point a) of section 1 is the price manipulation. Provision indicates, that also behaviour which “sets or is likely to set the price of one or several crypto-assets at an abnormal or artificial level.”²³⁸ Such prohibitions seems to be the logical consequence of the general principles of EU competition law and the prohibition of predatory pricing practices, that are considered as abusive due to the aim to exclude the market competition.²³⁹ Cryptocurrencies and crypto-assets in general are considered as the very variable instruments, dependent on many market factors and outside factors, which can be seen in practice. Manipulation of the price by crypto-asset service provider “at an abnormal or artificial level” is abusive in light of the judgement to in Case 62/86 *AKZO Chemie BV v. Commission of the European Communities*,²⁴⁰ as described in the Chapter 5, due to its anticompetitive character. In the aforementioned case, prices were established below fixed and variable cost in order to eliminate the competition. In comparison to potential setting of the price “at an abnormal or artificial level” on the crypto-asset and cryptocurrency market seems to fulfill the conditions provided in the *AKZO Case*.

As provision continues, “entering into a transaction, placing an order to trade, or any other behaviour which affects or is likely to affect the price of one or several crypto-assets, which employs a fictitious device or any other form of deception or contrivance” is also prohibited. It copes with specification of the market, based on the technology and digitalization. Authors of MiCA regulation prohibited therefore the use of certain “fictitious” devices, than can affect the price in order to exclude possible competitors by artificial operations within the cryptocurrency and crypto-asset market.

Section 1 point c) of article 80 goes even further and prohibits unfair marketing, while considering it as a potential market abuse, which is not surprising. It is also related to the price manipulation, and point c) stands as

²³⁸ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 101;

²³⁹ D. Chalmers, G. Davies, G. Monti “European Union Law. Text and Materials”, Cambridge University Press, 4th ed., 2019, p. 958;

²⁴⁰ *AKZO v. Commission*, 62/86, ECLI:EU:C:1991:286;

the continuation of the previous points. Any dissemination of information with use of the media which “*gives or is likely to give*”²⁴¹ signals as to the price, supply, demand for any crypto-asset, that are misleading for the consumers, as well as to secure the price of crypto-assets at an ‘abnormal or artificial level’, aforementioned in previous points is prohibited. What is more, dissemination of rumors through the media is also included in the provided prohibition.²⁴² Any misleading information, that may influence consumers and potentially exclude competitors from the market is strictly prohibited. Wording included in the provision is opened to interpretation and can be considered as proper, due to various practical possibilities of ‘disseminating’ information through the media and marketing strategies. Furthermore, the question of responsibility is included in the provision, which stipulates, that if any person knew or ‘ought to have known’ about the misleading and false information that was disseminated is responsible for such actions.

It has to be noted, that the potential market abuses are strictly connected with operating on the trading platforms for crypto-assets, which is more detailed in the section 2 of article 80, that contains further list of possible market abuses. Following the list, all the mentioned behaviours will be considered as market manipulations, among them securing a dominant position “*over the supply of or demand for a crypto-asset, which has, or is likely to have, the effect of fixing, directly or indirectly, purchase or sale prices or creates, or is likely to create, other unfair trading conditions*”,²⁴³ as included in point a). The following subpoint b) refers to placing of orders to a trading platform including cancellations or modifications by any means of trading, and which has one of the effects referred to in former point. Placing of orders can be done for example by disrupting or delaying the

²⁴¹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 101;

²⁴² “MiCA explained: the EU crypto-asset law. The proposed Markets in Crypto-assets Regulation” Xreg Consulting working paper, 2020, p. 27;

²⁴³ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 101;

functioning of the trading platform, engaging into activity that is likely to have that effect, impeding other persons to identify ‘genuine orders’ on the trading platform, engaging into activity that is likely to have that effect, also by entering orders which result in the destabilization of the normal functioning of the trading platform. Furthermore, creation of false or misleading signals about the supply demand or price of a crypto-asset. All the actions listed in subpoint b) are very detailed, but not very strict. It seems that the intention of the creators of the regulation was to leave some space for interpretation. Regulation does not provide any further definitions of, for example, ‘misleading signals’. It suggests the wide meaning of the provided examples of market manipulations.

Provision ends with point c), which refers to “*taking advantage of occasional or regular access to the traditional or electronic media by voicing an opinion about a crypto-asset, while having previously taken positions on that crypto-asset, and profiting subsequently from the impact of the opinions voiced on the price of that crypto-asset, without having simultaneously disclosed that conflict of interest to the public in a proper and effective way.*”²⁴⁴ It also remains open for interpretation, but also indirectly stipulates an obligation on ‘persons’ to properly disclose the conflict of interest to the public.

It has to be noted, that the provisions of Title VI of MiCA regulation remain silent about the enforcement and what actions have to be taken after confirming the fact of abuse or manipulation. These provisions are an example of rules that aim at preventing market abuses and defining them in the most definite way possible, simultaneously providing space for interpretation.

It is clearly visible, that the current regulations of competition of European internal market and case law of CJEU are relevant, but not enough to face the challenges provided by the rapid technological development of crypto-asset and cryptocurrency market. Proposal of MiCA regulation tries

²⁴⁴ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, COM/2020/593 final; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52020PC0593>, p. 101;

to answer those needs by providing more strict and certain definitions and examples of other types of market abuse on the specific market of crypto-assets. New, comprehensive list of crypto-asset related definitions and services will support the broad and uniform application of MiCA across the EU and adjustment of the already existing competition policy to the new legal challenges. Ex-ante sector regulation, along with ex-post sanctioning abuses that distort competition are likely to form transparent system of competition principles regarding specific market of cryptocurrencies and crypto-assets. Simultaneous definite approach along with provisions and definitions applicable under interpretation and flexible for amendments will maintain the widespread application of the MiCA regulation in line with future developments of the crypto-asset industry and the digital economy within the EU territory.

CHAPTER 8. SOLUTIONS IN OTHER JURISDICTIONS WITH REGARD TO CRYPTOCURRENCY MARKET

In order to understand the approach of European Council and European Parliament while creating MiCA regulation and its provisions concerning potential market abuse on the market of crypto-assets and cryptocurrencies there is a need to briefly compare them with the solutions provided in other jurisdictions. United States and Asian states are considered as the pioneers of crypto-assets, when it comes to creation and providing economical and potential legal framework for this specific market. Nevertheless, many solutions provided in those states are contrary to EU approach. Therefore, this chapter will be focused on solutions provided in these countries.

8.1 United States

United states, as a common law country is based on federal and state laws, which may differ also as to the crypto-assets. Both federal regulations and state legislation are in force when it comes to virtual currencies like Bitcoin or Ethereum.²⁴⁵ In current situation, the US Securities and Exchange Commission (SEC) did not approve any exchange-traded funds holding crypto products like cryptocurrencies for listing or trading.²⁴⁶ Nevertheless, in some states, the blockchain based payments are possible, among them some other crypto-asset actions like payment of taxes in Bitcoin (Arizona)²⁴⁷, registration of shares in companies in form of blockchain (Delaware)²⁴⁸ or recognizing blockchain as evidence (Vermont).²⁴⁹ In 2017, model Act providing for the regulation of digital currency businesses at the

²⁴⁵ Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020 by Informa Law from Routledge, p. 140;

²⁴⁶ N. Graham, “VanEck-Cboe Bitcoin ETF on SEC’s calendar”, Eth News, 22/02/2019, www.ethnews.com/vaneck-cboe-bitcoin-etf-on-secs-calendar;

²⁴⁷ D.Z. Morris, “Arizona state votes to accept tax payments in Bitcoin”, Fortune, 2018, www.fortune.com>TheLedger>Bitcoin, accessed 18/02/2018; Arizona Senate Bill 1091;

²⁴⁸ J.J. Roberts, “Companies can put shareholders on a blockchain starting today”, Fortune, 2017, www.fortune.com>Tech>Blockchain;

²⁴⁹ S. Higgins, “Vermont could collect taxes in crypto under proposed law”, Coin Desk, 2018;

state level²⁵⁰ was adopted by the National Conference of Commissioners on Uniform State Laws. The model Act covers relevant issues, like consumer protection, cybersecurity, anti-money laundering, licensing requirements and licensees supervision.²⁵¹ Virtual currency (cryptocurrency) was defined by the Uniform Law Commission (ULC) as “*a form of electronic value that depends on the market.*” Due to the fact, that it is not issued by a government, it lacks the status as a legal tender.

Currently, the SEC is observing the crypto-asset activities of the market actors, among them the trading platforms.²⁵² Due to the different solutions among single states, there is no uniform competition law as to the competition on cryptocurrency and crypto-asset markets. The general principles and established rules of federal competition law are applied to all markets, including the market of crypto-assets, and have to be considered as some kind of a model legislation for the other countries. USA, is considered as the pioneer of competition policy, to mention Sherman Act and Clayton Act²⁵³, which provided uniform antitrust law on the federal level. Yet, some governmental institutions, like formerly mentioned SEC and the Commodity Futures Trading Commission (CFTC) suggests, that virtual currencies like Bitcoin are new financial phenomenon and their character is not covered by existing law.²⁵⁴ Already existing US federal laws are in their opinion not designed in line with unique characteristics of cryptocurrencies and this ‘jurisdictional deficit’ applies not just to the CFTC, but to all federal regulatory agencies.²⁵⁵

It has to be noted, that the proposals and model legislation like the model Act providing for the regulation of digital currency businesses at the

²⁵⁰ Uniform Law Commission (ULC), “Regulation of Virtual Currency Businesses Act”, ULC, 2017, www.uniformlaws.org/..regulation%20of%20virtual%20currencies/URVCBA_Final_;

²⁵¹ Ibidem;

²⁵² Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020 by Informa Law from Routledge, p. 152;

²⁵³ http://neconomides.stern.nyu.edu/networks/ShermanClaytonFTC_Acts.pdf;

²⁵⁴ Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020 by Informa Law from Routledge, p. 154;

²⁵⁵ D. Felsenthal & J. Overall, “A tale of two cities: SEC & CFTC Heads testify before the Senate Banking Committee”, Crowdfund Insider, 2018, www.crowdfundinsider.com/2018/02/128129-tale-two-cities-see-heads-testify-senate-banking-committee/?utm_source=Auto;

state level adopted by ULC are focused more on the regulation of security, anti-money laundering and banking law adjustments, rather than on competition challenges. In current situation, the already existing federal competition rules and principles have to be applied, despite some specific legislation covering crypto-assets and cryptocurrencies provided in several states. On the contrary to EU approach, no specific provisions concerning the competition on cryptocurrency market was proposed. Nevertheless, current opinions of several US federal agencies may change the legal situation of crypto-asset competition.

8.2 Asia

In region of Asia, there are different approaches to crypto-assets and cryptocurrencies, that varies from one state to another. Asian economies differ on the level of their size and competitiveness. Furthermore, Asian economies are known for active participation in crypto-asset activities and both emerging and advanced economies are said to be the ‘hotspots’ to advance the crypto-asset and FinTech progression.²⁵⁶

Japan and Singapore are considered as the economically aggressive and competitive economies with regard to financial systems.²⁵⁷ When it comes to FinTech, these countries have very fast developing blockchain and crypto-asset areas. As advanced economies within the region, they can pose a competitive threat for the global digital economy and Western countries.

In Japan, cryptocurrencies and crypto-assets are treated as ‘normal’ assets in general. The banking laws were amended in 2017 by the Payment Services Act, also referred to as the “Virtual Currency Act”²⁵⁸, that provided first regulatory regime for cryptocurrency business in Asia. Currently, more than 15 businesses are registered under this regime and in effect of this legislation, cryptocurrencies become legal form of payment. Regime also requires bitcoin exchanges to maintain minimum capitalization and follow general anti-money laundering and ‘know your customer’ (KYC)

²⁵⁶ Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020 by Informa Law from Routledge, p. 200;

²⁵⁷ Ibidem, p. 200;

²⁵⁸ <http://www.japaneselawtranslation.go.jp/law/detail/?id=3078&vm=02&re=02;>

procedures resembling those in the banking sector.²⁵⁹ All the actions regarding cryptocurrencies fall under the regulatory supervision of the Japan Financial Services Agency.

When it comes to competition, Japan relies on its general rules, included in Antimonopoly Act from 1947²⁶⁰ with indications contained in the new legislation. The “Virtual Currency Act” provided measures for customer protection in Article 63-10. Similarly to the provisions provided in MiCA regulation, *“Virtual Currency Exchange Service Provider must, (...) provide explanation designed to prevent users from mistaking the Virtual Currency used in the business for the Japanese currency or a foreign currency, and information about fees and other terms and conditions of contracts pertaining to the Virtual Currency Exchange Service, and take other measures necessary for protecting the users of the Virtual Currency Exchange Service and ensuring the proper and secure conduct of the Virtual Currency Exchange Service.”*²⁶¹ This provisions suggest consumer oriented approach, which can be regarded as prevention of potential market manipulation by setting the minimum standards of information and obligation provide the customer with all relevant information.

Different approach is observed in China, due to the problems with accepting cryptocurrencies by the government, which started a campaign against crypto-assets in 2017.²⁶² National Internet Finance Association (NIFA) held, that any crypto-assets exchange currently operating in China is not legally authorized to engage in business. Implications of a banning the cryptocurrency trading in China would have serious outcomes, due to one of the most active cryptocurrency trading activities around the world, which

²⁵⁹ K. Yagami, “Japan: A forward thinking Bitcoin nation”, Forbes, www.forbes.com/sites/outofasia/2017/11/02/japan-a-forward-thinking-Bitcoin-nation/#6608953733a3;

²⁶⁰ https://hirayamalawoffices.com/wp-content/uploads/2018/11/Legal_thesis_30.pdf;

²⁶¹ <http://www.japaneselawtranslation.go.jp/law/detail/?id=3078&vm=02&re=02>;

²⁶² L. Froelings, “China moves towards tougher Bitcoin regulation, but not to outright ban: Jian Wu”, Coin Telegraph, 2017, <https://www.cointelegraph.com/news/china-moves-towards-tougher-Bitcoin-regulation-but-not-to-outright-ban-jihan-wu>;

takes place in China.²⁶³ As a result, 88 cryptocurrency exchange platforms operating in the country were closed.²⁶⁴

Currently, the development of regulations, changes the approach of Chinese authorities, that starts to permit Bitcoin and other cryptocurrency transactions, but under certain restrictions imposed on users.²⁶⁵ In present situation, Chinese government focuses on cleansing the risk from financial markets. Some scholars hold the opinion, that Chinese authorities consider blockchain as a technology of the future and tool for advancing its regional interest in trade.²⁶⁶ In fact, China includes blockchain technology as part of its 13th five-year Plan and wants to use blockchain to ensure the trustworthiness of public and administrative data.²⁶⁷

The specific situation and character of Chinese economy along with restrictions on blockchain and cryptocurrency transactions, currently leaves no space for analysis of the competition law solutions at all, and especially with regard to the crypto-assets.

In Singapore, the rules of competition are set in Competition Act from 2004 and Consumer Protection (Fair Trading) Act from 2003.²⁶⁸ First statute prohibits anti-competitive practices and agreements, like cartel agreements concerning price fixing (section 34) and abuse of dominant position (section 47). Provisions of abovementioned acts cover all markets, including the digital ones.

When it comes to crypto-assets, the Singapore's central bank (Monetary Authority of Singapore) advises consumers to act with caution and awareness of potential risks as to investing in cryptocurrencies. It underlines, that in Singapore, cryptocurrencies are not legal tender and that

²⁶³ Andrew Haynes, Peter Yeoh, "Cryptocurrencies and Cryptoassets Regulatory and Legal Issues", 2020 by Informa Law from Routledge, p. 202;

²⁶⁴ <https://www.finextra.com/blogposting/18012/crypto-regulation---asia-leading-the-way>;

²⁶⁵ L. Cuen, "China Bans Initial Coin Offerings While Paris Hilton Promotes Lydian Coins", International Business Times, 2017, <https://www.ibtimes.com/china-bans-initialcoin-offerings-while-paris-hilton-promotes-lydian-coins-2585985>;

²⁶⁶ E. Parker, "Can China contain Bitcoin? It is trying. But the cryptocurrency is bigger than any country, even the one where it has been most popular?", MIT Technology Review, 2018;

²⁶⁷ Andrew Haynes, Peter Yeoh, "Cryptocurrencies and Cryptoassets Regulatory and Legal Issues", 2020 by Informa Law from Routledge, p. 209;

²⁶⁸ <https://www.cccs.gov.sg/legislation/competition-act>;

its price is recently driven by speculation.²⁶⁹ MAS do not seemed to take steps in order to regulate cryptocurrencies, except when their activities directly fall under its interest.²⁷⁰ Nevertheless, in January 2020, the new Payment Services Act²⁷¹ came into force, and is said to be answering the innovations in the digital markets and the needs to update the regulations. It refers to among many payment innovations, digital tokens, e-payments and e-wallets.²⁷² The legislation does not include the specific provisions related to the market manipulations and abuses regarding cryptocurrencies. It suggests, that the existing rules and principles of competition acts have to be adjusted on case-by-case basis to the potential anticompetitive practices in the field of crypto-assets.

It has to be noted, that MiCA regulation is something unique among the other countries and their approach to regulate the competition with regard to the cryptocurrency market. Legislation providing special provisions and definitions concerning blockchain technology and crypto-assets based on that model has to be considered as a good solution, which will made the legal challenges for competition in digital markets easier and more transparent.

²⁶⁹ Monetary Authority of Singapore (MAS), “MAS cautions against investments in cryptocurrencies”, MAS Media Release, 2017, <https://www.mas.gov.sg/news/mediareleases/2017/mas-cautions-against-investments-in-cryptocurrencies>;

²⁷⁰ Andrew Haynes, Peter Yeoh, “Cryptocurrencies and Cryptoassets Regulatory and Legal Issues”, 2020 by Informa Law from Routledge, p. 224;

²⁷¹<https://sso.agc.gov.sg/Acts-Supp/2-2019/Published/20190220?DocDate=20190220#pr72>;

²⁷²<https://www.pinsentmasons.com/out-law/news/january-2020-date-set-for-new-payment-laws-in-singapore>;

CHAPTER 9.

FINAL REMARKS

Cryptocurrencies and other crypto-assets are totally new area, which is quickly developing within last decade and can be considered as change of an approach of consumers to the use of new technologies in payment services. The legal regulation of this branch of the digital markets based on the blockchain technology is inevitable, but also challenging from both legal and economic point of view. Despite some current national legislation in EU Member States, there is a need to establish a legal framework on the European level in order to unify the market and provide universal legal solutions to prevent the decentralization of provisions and legislative chaos. In fact, many reports from the European countries regarding competition in digital economy and crypto-assets suggest, that European authorities and national competition authorities are willing to attribute and adjust the existing legal solutions and methods of analysis to the new reality of the digital and crypto-currency markets.²⁷³

Already existing principles and rules of competition law and policy complemented by the new provisions regarding specific part of the digital market such as crypto-assets and cryptocurrencies are likely to form the transparent and efficient system to prevent the consumers from any abuses and the market actors from unfair competition and anticompetitive strategies that are likely to occur on the newly regulated and rapidly developing market.

Provisions regarding competition provided in MiCA regulation seems to answer the current challenges of competition within the field of digital economy in times of rapid evolution of financial services. In line with European competition policy it forms the flexible and uniform solutions, which are likely to cope with current legal challenges of still evolving and developing market of crypto-assets and cryptocurrencies.

²⁷³ Nicolas Petit, Pieter Van Cleynenbreugel, „EU Competition Law and the Digital Economy, Protecting Free and Fair Competition in an Age of Technological (R)evolution”, The XXIX Congress in The Hague, 2020, Congress Publications Vol. 3, Eleven International Publishing, 2020, p. 48.

The assessment of the MiCA regulation has to be seen as positive change and adequate approach of EU authorities in facing the development of market of cryptocurrencies and crypto-assets. The broad and uniform application of MiCA regulation has to be underlined. The provisions concerning competition issues and market abuse seems to be flexible for amendments and further interpretation and gives useful tool not only to the NCA's but also to the customers and other practitioners. The widespread application of MiCA regulation in line with future developments of the industry will be crucial to maintain a transparent, technological-friendly and competitive-oriented system within the territory of the European Union.

ABSTRACTS

10.1 English Version

The following thesis is focused on analysis of the provisions of the Title VI of the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (MiCA) concerning market abuse and anti-competitive behavior on the market of crypto-assets. The thesis introduces the purposes of creating the MiCA regulation and underlines the high significance of the technological development in digital economy and financial services. The basic terms and specification of the crypto-asset and cryptocurrency market like distributed ledger technology, blockchain technology is briefly described along with references to some scholars from the field and the legal definitions already provided in some jurisdictions.

The main risks and challenges for the competition law on the cryptocurrency and crypto-asset market are defined and analyzed with reference to the legal solutions proposed in the MiCA regulation. These provisions are put into analysis in the light of EU competition policy and compared with solutions already developed in other jurisdictions in order to regulate the cryptocurrency market.

The characteristic of legal institution of abuse of dominant position are outlined and explained. Sources of law (Article 101 and 102 TFEU) and explanation of optimal abuse tests along with relevant case law of Court of Justice of the European Union are referred and confronted with the provisions concerning the abuse of dominance and market abuse in MiCA regulation.

Provisions of MiCA regulation concerning market abuse are analyzed and explained in the light of already existing competition regulations on the EU level and also put into comparison with other jurisdictions such as US and Asia, which are considered pioneers of blockchain technology and cryptocurrencies, to assess the proposed European regulation as the solution to possible abuses and breaches of competition law on the new, fast developing cryptocurrency market.

Final remarks sum up all of the issues covered in the thesis along with assessment of the MiCA regulation and the future development of cryptocurrency and crypto-asset market, underlining its broad and uniform application and the flexibility for amendments to MiCA that will be crucial for its widespread application in line with future developments of the industry.

Key words: MiCA regulation, distributed ledger technology, blockchain, crypto-asset, cryptocurrency, market abuse, abuse of dominance, EU competition law.

10.2 German Version

Die folgende Arbeit konzentriert sich auf die Analyse der Bestimmungen des Titels VI des Vorschlags für eine Verordnung des Europäischen Parlaments und des Rates über Märkte für Krypto-Assets und die Änderung der Richtlinie (EU) 2019/1937 (MiCA) über Marktmissbrauch und wettbewerbswidriges Verhalten auf dem Markt für Krypto-Assets. Die Arbeit erläutert die Ziele der MiCA-Verordnung und unterstreicht die große Bedeutung der technologischen Entwicklung in der digitalen Wirtschaft und den Finanzdienstleistungen. Die grundlegenden Begriffe und Spezifikationen des Krypto-Asset- und Kryptowährungsmarktes wie Distributed-Ledger-Technologie, Blockchain-Technologie werden kurz mit Verweis auf einige Wissenschaftler aus dem Bereich und die in einigen Rechtssystemen bereits existierenden rechtlichen Definitionen beschrieben.

Die wesentlichen Risiken und Herausforderungen für das Wettbewerbsrecht auf dem Kryptowährungs- und Krypto-Asset-Markt werden unter Bezugnahme auf die in der MiCA-Verordnung vorgeschlagenen rechtlichen Lösungen definiert und analysiert. Diese Bestimmungen werden im Licht der EU-Wettbewerbspolitik analysiert und mit Lösungen verglichen, die bereits in anderen Rechtsordnungen entwickelt wurden, um den Kryptowährungsmarkt zu regulieren.

Die Eigenschaften der Rechtsinstitution des Missbrauchs einer marktbeherrschenden Stellung wurden skizziert und erläutert. Rechtsquellen (Artikel 101 und 102 AEUV) und Erläuterung optimaler Missbrauchstests sowie einschlägige Rechtsprechung des Gerichtshofs der Europäischen Union in der MiCA-Regulierung wurden mit den Bestimmungen über den Missbrauch einer marktbeherrschenden Stellung und den Marktmissbrauch konfrontiert.

Bestimmungen der MiCA-Regulierung zum Marktmissbrauch werden im Lichte bereits bestehender Wettbewerbsvorschriften auf EU-Ebene analysiert und erläutert und mit anderen Rechtssysteme wie denen der USA und Asiens, die als Pioniere der Blockchain-Technologie und Kryptowährungen gelten, in Vergleich gebracht, um die vorgeschlagene europäische Verordnung als Lösung für mögliche Missbräuche und Verstöße gegen das Wettbewerbsrecht auf dem neuen, sich schnell entwickelnden Kryptowährungsmarkt zu bewerten.

Abschließende Bemerkungen legen alle in der Arbeit behandelten Fragen zusammen mit der Bewertung der MiCA-Verordnung und der zukünftigen Entwicklung des Kryptowährungs- und Krypto-Asset-Marktes dar, wobei sie ihre breite und universelle Anwendung und das Potential für Änderungen der MiCA unterstreichen, das für ihre breite Anwendung im Einklang mit zukünftigen Entwicklungen der Branche entscheidend sein werden.

Schlagworte: MiCA-Regulierung, Distributed-Ledger-Technologie, Blockchain, Krypto-Asset, Kryptowährung, Marktmissbrauch, Missbrauch von Marktbeherrschung, EU-Wettbewerbsrecht.

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