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Exploitation of cryptocurrencies as a tool for tax evasion: technological and regulatory issues

MASTER'S THESIS

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DECLARATION OF HONOUR:

I declare that this thesis is my own work, and that all references to, or quotations from, the work of others are fully and correctly cited.

(Signed)

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Abstract

Tax evasion is a crime that harms the national economies, society and indirectly affects all the residents of each state. Now that after a long time of international efforts the traditional tax evasion tools have eventually been put under a reasonable control, a new technology has emerged able to facilitate efficient tax evasion.

The main objectives of this research are to identify the regulatory challenges of the non-precedent technology, to analyse the applicability of the current EU legislation aimed at tax evasion prevention to the exploitation of cryptocurrencies, and to assess the recommendations of academics and international organizations for a possible future regulation.

This research resulted establishing that tax evasion through cryptocurrencies is easy to perform at efficient level for the consumers while difficult to discover for the authorities. Due to the novel way of operation of the distributed ledger technology on which cryptocurrencies are based, cryptocurrencies cannot be placed under the existing regulation, instead an innovative approach is required. Each of the analysed proposition for the future regulation can only partly solve some of the challenges presented by the cryptocurrencies as a tool for tax evasion therefore a complex and globally consented approach needs to be developed.

Summary

Tax evasion is a serious problem which negatively affects national economies, society and in an indirect manner all the residents of each state. Previously the main tools for tax evasion were corporate structures and bank accounts in tax neutral jurisdictions which due to high costs and legal complexity were a privilege of wealthy persons. This privilege was recently severally restricted by efficient global counter tax evasion regulations. Nevertheless, a new technology was developed – containing characteristics that make it suitable for tax evasion. Pseudo anonymity and reduced traceability of cryptocurrency transactions decrease the risk of detectability of the tax evasion while the low cost of cryptocurrency transactions grant high return thereof.

As a new disruptive technology, cryptocurrencies face multiple regulatory challenges. They operate in the Cyberspace which has no geographical limitations therefore the fragmented national regulation cannot restrict the use of cryptocurrencies for tax evasion. The regulators need to develop the regulation in a way that would not result in overregulation and prevent the development of technological innovation.

The current tax evasion prevention regulation is designed to regulate the financial services intermediaries and is based on information sharing between the tax authorities or from the financial services providers to tax agencies. As cryptocurrencies operate in a decentralized manner without a central intermediary, the current legislation cannot be efficiently applied on cryptocurrency transactions. In the cryptocurrency environment, no one holds the information about the cryptocurrency users and their performed transactions hence no one can share this information and tax authorities has no one from whom to request it.

The main tax evasion prevention documents in the EU, namely the EU Directive on administrative cooperation in the field of taxation does not expressly include cryptocurrency service providers in its scope therefore it depends on the national legislation of the Member states whether the cryptocurrency assets are reported for the taxation purposes or not. The only tax evasion prevention regulation that expressly includes cryptocurrency exchanges and wallet service providers is EU Anti Money Laundering Directive. Nevertheless, the application of this directive is inefficient to fight tax evasion through cryptocurrencies for the reason that the Directive is aimed at preventing big crimes and states the minimum limit for the tax crimes to be included in its scope. Accordingly, only the tax evasion of considerable amount is covered by this directive while the cheap and pseudo-anonymous transactions

permit taxes to be evaded even at small amounts. Consequently, an innovative regulation is required to efficiently tackle the tax evasion through cryptocurrencies.

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List of abbreviations

AEOI – Automatic Exchange of Information

AMLD – Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC

AMLD5 – Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU

ATAD – Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market

ATM – Automated Teller Machine

BEPS – Base Erosion and Profit Shifting

BVI – British Virgin Islands

CHF – Confoederatio Helvetica Frank (Swiss Frank)

CRS – Common Reporting Standard

DAC – Council Directive 2011/16/EU of 15th February 2011 on administrative cooperation in the field of taxation

EBA – European Banking Authority

EPRS – European Parliamentary Research Service

EU – European Union

EUROPOL – European Union Agency for Law Enforcement Cooperation

FATCA – Foreign Account Tax Compliance Act (USA)

FATF – Financial Action Task Force

FIU – Financial Intelligence Unit

FTR - Regulation (EU) 2015/847 of the European Parliament and of the Council of 20 May 2015 on information accompanying transfers of funds and repealing Regulation (EC) No 1781/2006

GBP – United Kingdom Pound

HMRC – Her Majesty's Revenue and Customs (UK)

IMF – International Monetary Fund

IP – Internet Protocol

IRS – Internal Revenue Service (USA)

IT – information technology

UK – the United Kingdom of Great Britain and Northern Ireland

US – United States of America

USA – United States of America

USD – United States Dollar

INTRODUCTION

Tax evasion is a serious crime. It not only harms the national economies but also the society and the political system.¹ Everyone may be affected by the tax crimes directly and indirectly. As the Governments collect less revenue, the sectors of public investment such as health, education, public security and others receive scarcer funding and may become under-financed thus decelerating the economic development.² Consequently, the honest tax payers are compelled to bear greater share of the tax burden³. Such condition challenges the tax fairness. Inequality in taxation renders honest businesses less competitive in the market distorting fair competition.⁴ At the same time, more government spending is allotted to ensuring tax compliance⁵ which honest taxpayers are forced to cover. Tax evasion often accompanies money laundering and corruption hence posing threat to the state sovereignty, authority of the state power and democratic values.⁶

Tax evasion is a serious problem for the governments. Although the calculation of exact amount of taxes evaded is difficult due to the intentional hiding of information, the researches estimate USD 189 billion to USD 163 billion of global tax revenue loss in the years 2010 and 2016 respectively.⁷ While the failure to report and pay taxes on locally held assets is occasionally practiced, most of the unreported income is held abroad.⁸ According to various reports, substantial amount thereof is held in the countries with preferential tax regimes, the so-called tax havens.⁹ Hence, the traditional tax evasion tools include elaborate corporate schemes without economic substance, aggressive pricing of assets, intergroup transactions for

¹ Rifat Azam "Ruling the World: Generating International Tax Norms in the Era of Globalization and BEPS," *Suffolk University Law Review* 50, no. 4 (2017): p.519.

² OECD "Action Plan on Base Erosions and Profit Shifting", OECD Publishing (2013), available on: <http://dx.doi.org/10.1787/9789264202719-en>, accessed 10.04.2020, p.8.

³ *Ibid.*

⁴ *Ibid.*

⁵ *Ibid.*

⁶ Sinisa Franjic, "Money Laundering Phenomenology," Economic and Social Development, International Scientific Conference on Economic and Social Development: The Legal Challenges of Modern World 31 (2018), p.421.

⁷ Charles Vellutini *et al* "Estimating International Tax Evasion by Individuals – Final Report". *Publications Office of the European Union* (2019): p.27, available on: https://ec.europa.eu/taxation_customs/sites/taxation/files/2019-taxation-papers-76.pdf. Accessed March 2, 2020.

⁸ Elisa Casi, Christoph Spengel and Barbara M.B. Stage "Cross-Border Tax Evasion after the Common Reporting Standard: Game Over?", ZEW - *Centre for European Economic Research* Discussion Paper No. 18-036, (July 20, 2019): p.6. Available at SSRN: <https://ssrn.com/abstract=3245144>. Accessed 22.04.2020.

⁹ Vellutini, *supra* note 7.

base erosion and profit shifting, and bank accounts in tax havens with strong bank secrecy laws, no exchange controls and lack of international treaties.¹⁰

The Governments have been trying to combat the tax evasion throughout the history, however, only in the last decade they have succeeded to put the traditional tax evasion tools under a reasonable control. Only with the realization that the most efficient way to fight the tax evasion is information sharing¹¹ considerable level of success was achieved. Several important documents have been issued shaping the international tax transparency. One of the first such documents was the OECD landmark Report on Harmful Tax Competition in 1998.¹² The implementation of the Convention on Mutual Administrative Assistance in Tax Matters,¹³ Common Reporting Standard¹⁴ and Automatic Exchange of Information have also had the desired effect.¹⁵

Nevertheless, in the meantime a new technology has emerged, perfectly suited for the tax evasion. The distributed ledger technology, on which cryptocurrencies are based, endows the cryptocurrencies with characteristics that substantially facilitate tax evasion and the subsequent asset hiding. Cryptocurrency transfers are quick, global, economic, almost anonymous and are out of the reach of the authorities.¹⁶ As a non-precedent disruptive technology, cryptocurrencies face multiple regulatory challenges. The novel decentralized way of operation thwarts the application of the existing financial services legislation as well as the current tax-evasion prevention legislation on cryptocurrencies requiring innovative ways of regulation.

So far cryptocurrencies have frequently been analysed in the academic legal literature from the perspective of their possible use for criminal purposes, money laundering and terrorism financing. Although this topic generally includes tax evasion as a type of crime, there are specific aspects to the tax evasion that differ from other crimes involving cryptocurrencies. Spotting and discovering tax evasion crimes differs from money laundering and terrorism

¹⁰ Graeme S. Cooper, "Analyzing Corporate Tax Evasion," *Tax Law Review* 50, no. 1 (Fall 1994): p.42.

¹¹ Vellutini, *supra* note 7, p.37.

¹² OECD, *Harmful Tax Competition. An Emerging Global Issue* (1998). Available on: https://www.oecd-ilibrary.org/taxation/harmful-tax-competition_9789264162945-en, accessed May 10,2020.

¹³ Azam, *supra* note 1, p.546.

¹⁴ Casi, *supra* note 8.

¹⁵ Azam, *supra* note 1, p.543.

¹⁶ EBA, *Opinion on 'virtual currencies'*, 4 July 2014, p.19, available on: <https://www.eba.europa.eu/documents/10180/657547/EBA-Op-2014-08+Opinion+on+Virtual+Currencies.pdf>, accessed: February 5, 2020.

financing due to the possible lack of illicit origin and destination of the funds and the transactions may not become illegal until the reporting due date for the respective taxable period. Hence, tackling tax evasion requires a different approach and should be examined in more detail separately from other criminal activities.

The use of cryptocurrencies for tax evasion has been brought to attention by several academic writers, such as Piergiorgio Valente¹⁷, Sarah Gruber¹⁸, Omri Marian¹⁹, and international organizations like European Banking Authority²⁰, International Monetary Fund,²¹ Financial Action Task Force²², however, lacking extensive analysis. Most of such articles are written by American authors specifically from the American legal perspective.

The aim of this research is to analyse deeper the specific aspects exploitation of cryptocurrencies for the purpose of tax evasion in the context of the EU legislation.

For the purposes of this research the term ‘cryptocurrencies’ covers only the pure cryptocurrencies that operate on distributed ledger technology using cryptography. All other virtual currencies that are not cryptocurrencies due to a different way of operation or different underlying technology, as well as any other virtual assets such as tokens or cryptocurrency derivatives are excluded from the scope of this work.

The use of the cryptocurrencies will be analysed solely in the context of tax evasion and only the regulation targeted at its prevention will be assessed. Cryptocurrency taxation itself is excluded from the scope of this work as taxation is not fully harmonized in the EU and each member state applies its own tax regulations at national level. Moreover, currently the income from the sale or change in value of cryptocurrencies in different EU Member States is taxed under different tax regimes. For this reason, the thesis only deals with the avoidance to report and/or pay any taxes allegedly due to any Member State.

¹⁷ Piergiorgio Valente, “Bitcoin and Virtual Currencies Are Real: Are Regulators Still Virtual?”, *INTERTAX*, Volume 46, Issue 6&7 (2018): pp.541-549.

¹⁸ S. Gruber, "Trust, Identity and Disclosure: Are Bitcoin Exchanges the Next Virtual Havens for Money Laundering and Tax Evasion," *Quinnipiac Law Review (QLR)* 32, no. 1 (2013), pp.135-[ii].

¹⁹ Omri Marian, “Are Cryptocurrencies Super Tax Havens?”, 112 *Mich.L. Rev.First Impressions* 38 (2013), pp.38-48. Available on: http://repository.law.umich.edu/mlr_fi/vol112/iss1/2, accessed February 12, 2020.

²⁰ EBA, *supra* note 16, p.19.

²¹ International Monetary Fund (IMF) Staff Discussion Note, *Virtual Currencies and Beyond: Initial Considerations* (2016): p.9. Available on: <https://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf> Accessed: 05.02.2020.

²² Financial Action Task Force (FATF) *Virtual Currencies, Key Definitions and Potential AML/CFT Risks*, June 2014, pp.1-15. Available on: <https://www.fatf-gafi.org/media/fatf/documents/reports/Virtual-currency-key-definitions-and-potential-aml-cft-risks.pdf>, accessed: March 2, 2020.

Cryptocurrency regulation for any other purposes, such as financial services, investor or consumer protection, is not considered under this research. However, as tax evasion is often viewed together with money laundering, both to some extent being regulated by the same legal acts, where these activities are inseparable, they will be regarded jointly.

Although reduction of taxes payable can take many forms at varying degrees of legitimacy²³ and there are certain boundaries between ‘tax evasion’ and ‘tax avoidance’²⁴, for the purposes of this thesis, any willful intent to artificially reduce or eliminate the tax liability will be considered under the term ‘tax evasion’ regardless of whether it formally constitutes a criminal offence or not.

The focus of the thesis is on cryptocurrency regulation in the European Union and only the EU legislation will be analysed. Nevertheless, the practices of cryptocurrency regulation in other countries or internationally may be referred to for two reasons: 1) in order to compare with the practices in the EU; 2) for the reason that cryptocurrencies operate in the cyberspace which is not geographically limited, and their global reach is one of the aspects under the analysis herein.

In order to properly research the stated topic, the following questions were analysed:

1. Which aspects of cryptocurrencies cause the risk of them being used as a tool for tax evasion?
2. What are the main challenges for creating an effective regulation for cryptocurrencies?
3. Does the current regulation of cryptocurrencies in the EU effectively deal with their exploitation for tax evasion purposes?
4. How could the current regulation be improved?

The thesis consists of three parts. The first part provides the assessment of the current situation. It explains the cryptocurrencies from different aspects giving a short historical insight in their creation, explains the ideological concept behind them and shortly describes the underlying distributed ledger technology so as to provide the basis for the further legal

²³ Cooper, *supra* note 10, p.45.

²⁴ Craig Elliffe “The Thickness of a Prison Wall - When does tax avoidance become a criminal offence?”, *Taxation Today*, Thomson Reuters 30, April 2012, pp.443, 444.

implications thereof. It also identifies and explains the characteristics of cryptocurrencies caused by the new technology which render them convenient for the purpose of tax evasion.

The second part deals with the cryptocurrency regulation. In the first subchapter thereof, the author explores the new regulatory challenges created by the cryptocurrencies and their underpinning technology. In the second subchapter the legal acts currently in force in the EU in respect of tax evasion prevention are analysed. Each legal act is particularly assessed in the context of its applicability to the users or providers of cryptocurrency transactions and whether the regulation is sufficient to prevent tax evasion through the exploitation of cryptocurrencies.

In the third part of the thesis possible recommendations for the future regulation are assessed. The author has selected the most relevant proposals of authorities, organizations and academic experts and evaluated them assessing their potential implications.

The following methods have been utilized to respond the research questions:

1. The descriptive method was used to introduce the cryptocurrencies and to explain their operation from the technology point of view.
2. The qualitative method was used to analyse the characteristics of cryptocurrencies that make them suitable for tax evasion. These characteristics were assessed taking into account the motives and typical reasons for which the individuals engage in tax evasion activities.
3. The analytical method was used when analysing the currently existing tax prevention legislation of the EU and assessing its applicability to the cryptocurrency transactions. This method was also used when doing a critical evaluation of the proposals from scholars and international organizations for the future regulation. The possible implications and consequences of the proposed regulatory solutions were assessed as well as their potential success in solving any one or more problems caused by the new technology.

The research is based on the existing legislation, working documents on the existing or proposed legislation as well as academic sources. All the used information materials may be divided into three groups. The first group comprises the sources that deal with the tackling of tax evasion in general and includes both – legal and academic sources. The legal sources include the respective directives in force in the EU such as the Directive on administrative cooperation in the field of taxation and Anti-Money Laundering Directive. The sources of the second group explain the cryptocurrencies. Some of the sources describe the technological details thereof such as the explanatory article of the Bitcoin creator Satoshi Nakamoto

published upon launching the first cryptocurrency in the history.²⁵ Other sources look at the cryptocurrencies from the legal and regulatory perspective such as reports, opinions and research papers issued by authorities and international organizations such as European Banking Authority,²⁶ International Monetary Fund²⁷ and Financial Action Task Force.²⁸ The third group connects the previous two and examines the aspects of the exploitation of cryptocurrencies that are relevant for the purpose of tax evasion. This group includes primarily academic sources by distinguished tax experts and legal specialists such as Piergiorgio Valente²⁹, Omri Marian³⁰ and Robby Houben³¹.

²⁵ Satoshi Nakamoto “Bitcoin: A Peer-to-Peer Electronic Cash System” (2008). Available on: <https://bitcoin.org/bitcoin.pdf>. Accessed February 19, 2020.

²⁶ European Banking Authority, *supra* note 7.

²⁷ International Monetary Fund, *supra* note 12.

²⁸ FATF, *supra* note 22.

²⁹ Valente, *supra* note 17.

³⁰ Marian, *supra* note 19.

³¹ Robbie Houben and Alexander Snyers, “Cryptocurrencies and blockchain. Legal context and implications for financial crime, money laundering and tax evasion”, Policy Department for Economic, Scientific and Quality of Life Policies (2018): pp.1-100. Available on: <http://www.europarl.europa.eu/cmsdata/150761/TAX3%20Study%20on%20cryptocurrencies%20and%20blockchain.pdf>. Accessed: November 11, 2019.

1. SITUATION ASSESSMENT

1.1. Cryptocurrencies explained

1.1.1 Definition

Cryptocurrencies are a type of virtual currencies defined by the Article 3.18 of the EU Anti Money Laundering Directive (AMLD) as:

“a digital representation of value that is not issued or guaranteed by a central bank or a public authority, is not necessarily attached to a legally established currency and does not possess a legal status of currency or money, but is accepted by natural or legal persons as a means of exchange and which can be transferred, stored and traded electronically.”³²

According to the definition, the main properties of virtual currencies are independence of public authorities, electronic nature and acceptance for exchange. The following characteristics distinguish cryptocurrencies from other virtual currencies:

- decentralization – lack of central administrator or intermediary;
- use for “peer-to-peer” exchange³³;
- convertibility from and back to fiat currencies³⁴;
- protection by cryptography.³⁵

Some of the above listed characteristics may be debated by some experts on general basis, for instance the distinguished economist Nouriel Roubini declares that the cryptocurrencies are

³² Article 3.18, Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU, *OJ L 156*, 19.6.20, pp. 43–74. Available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018L0843> Accessed February 3, 2020.

³³ Houben and Snyers, *supra* note 31, p.23.

³⁴ FATF, *supra* note 22, p.5.

³⁵ *Ibid.*

actually not decentralized on the contrary of what is generally believed.³⁶ Some of the characteristics may not be true for all the cryptocurrencies in the market due to the technological advancement in the field and the great diversity of their business models and methods of operation.³⁷ Nevertheless, for the purposes of this research these characteristics will be considered applicable as they do technically appertain to the most widely used cryptocurrencies with the greatest market capitalization, such as Bitcoin, Ethereum, Litecoin or Monero. Such cryptocurrencies are more likely to be used for tax evasion purpose than private cryptocurrencies with small market share which may be created for specific purposes. Most virtual currencies that are not cryptocurrencies either operate in closed environments (platforms or games such as Amazon Cash, Warcraft Gold or Second Life Linden Dollars), are centralized (administered by an administrator), or do not have a bi-directional link with the real economy (cannot be used to for purchasing goods outside the particular system or exchanged for fiat currencies)³⁸. For example, for the purposes of the AMLD, virtual currencies that operate exclusively within a particular game environment are exclude from the scope of the Directive.³⁹ However, this research will exclude all virtual currencies that are not cryptocurrencies as such payment instruments are not convenient for tax evasion due to higher traceability and lower ability to be used outside the restricted online environment, hence less likely to be used for tax evasion purpose.

1.1.2. Origins

The core concepts and the main drivers for the creation of cryptocurrencies are privacy protection and denial of trust in the financial services providers. While use of cash is nearly anonymous, considering that tracking the serial numbers of bills is not generally practiced, users of banks and credit cards, on the contrary, are fully exposed.⁴⁰ Moreover, the customers

³⁶ Nouriel Roubini “Blockchain isn't about democracy and decentralisation – it's about greed”, *The Guardian*, 15 October 2018, available on <https://www.theguardian.com/technology/2018/oct/15/blockchain-democracy-decentralisation-bitcoin-price-cryptocurrencies>, accessed March 13, 2020.

³⁷ FATF, *supra* note 22, p.3.

³⁸ *Ibid*, pp. 4,5.

³⁹ Section (10) of Recitals, Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU, *OJ L 156*, 19.6.20, p. 43–74. Available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018L0843> Accessed February 3, 2020.

⁴⁰ David Chaum, Amos Fiat and Moni Naor, “Untraceable Electronic Cash”, Springer-Verlag Berlin Heidelberg, 1990, p.319, available on: https://www.chaum.com/publications/Untraceable_Electronic_Cash.pdf, accessed March 21, 2020.

place significant trust in the financial institutions since the latter actually hold the money and execute the transactions on behalf of the customers. Cryptocurrencies and the underlying digital ledger technology were initially particularly appraised by the cypherpunks and cyber-libertarians whose ideology promoted destruction of the evil concentration of power represented by governments, banks, financial institutions and fiat currencies.⁴¹ Currently however the use of cryptocurrencies has grown from an ideological movement to an ordinary widely used means of payment and/or investment.

Intents to create unconditionally anonymous electronic payment systems have been present since 1980's, for example, the ecash created by the computer scientist David Chaum which unlike current cryptocurrencies still depended on a central authority to operate the system but anonymized the transaction details.⁴² The first system where the central authority was entirely replaced by cryptographic protocols was described in 1998 by the cryptographer Wei Dai,⁴³ and the first fully successful implementation of such cryptography based anonymous peer-to-peer payment system, was Bitcoin in 2009.⁴⁴ Its popularity grew steadily until 2017 when its price skyrocketed by 1200%⁴⁵ creating a financial bubble.⁴⁶ Currently there are more than 5200 different cryptocurrencies on the market⁴⁷ among which Bitcoin still retains the market share above 60 %.⁴⁸

1.1.3. Operational mechanism

Cryptocurrencies operate on blockchain which is a type of distributed ledger technology. By virtue of this technology, there is no need for a central authority to manage the operation of the system and verify the transactions as it is done in a distributed way by all the network

⁴¹ Barrett, Jonathan. "A Concession Approach to Distributed Ledger Enterprises". 25 *NZBLQ* 30 (2019): pp.30-44, p.7.

⁴² Chaum, Fiat and Naor, *supra* note 40.

⁴³ Wei Dai "b-money", available on: <http://www.weidai.com/bmoney.txt>, accessed March 21, 2020.

⁴⁴ Bitcoin.org. Frequently asked questions. Available on: <https://bitcoin.org/en/faq#general>. Accessed March 12, 2020.

⁴⁵ Charles Bovaird, "Why the crypto market has appreciated more than 1,200% this year", *Forbes*, November 2017. Available on: <https://www.forbes.com/sites/cbovaird/2017/11/17/why-the-crypto-market-has-appreciated-more-than-1200-this-year/#1e3a30556eed>. Accessed March 13, 2020.

⁴⁶ Noah Smith "Yep, Bitcoin Was a Bubble. And It Popped.", *Bloomberg*, December 11, 2018, available on: <https://www.bloomberg.com/opinion/articles/2018-12-11/yep-bitcoin-was-a-bubble-and-it-popped>, accessed March 13, 2020.

⁴⁷ All Cryptocurrencies, data: <https://coinmarketcap.com/all/views/all/>, accessed March 20, 2020.

⁴⁸ Percentage of total market capitalization, data: <https://coinmarketcap.com/charts/#dominance-percentage>, accessed March 20, 2020

participants collectively.⁴⁹ Blockchains can be permissioned where the nodes (participants permitted to amend the ledger and approve transactions) are selected or approved by an administrator, who generally sets the rules for the system but does not control the transactions within it, or permissionless where anyone can operate a node only by downloading the respective software.⁵⁰

The transactions are performed by use of two keys that every user has – a public and a private key. The remitter of the funds digitally signs the transaction with his/her own private key and adds the public key of the receiver.⁵¹ As the public keys in the form of address can be seen by anyone, the history of transactions is public.⁵² At the same time they are anonymous as the public keys do not contain any identifying information and the users can generate a new key pair for any new transaction.⁵³

Once requested, each new transaction is communicated to all the nodes of the system. The nodes validate the transactions and record them on a block.⁵⁴ By validating the transactions, the nodes try to solve a cryptographic puzzle upon which a new block is generated (mining process). The miner who first resolves the puzzle is rewarded for the work with newly generated coins.⁵⁵ The reward provides incentive for the nodes to participate in the network maintenance and verification of the transactions.⁵⁶ At the same time it ensures constant pre-set money supply which is controlled by an algorithm instead of an authority.⁵⁷

Once generated, each block of transactions is announced across the network. The block is timestamped confirming that all the transactions contained therein are valid and had been existing before.⁵⁸ The timestamp hash of each new block contains the previous timestamps thus enforcing all the chain.⁵⁹ By the “consensus mechanism”, the nodes confirm the new block and add it to the ledger ensuring immutable chronological order.⁶⁰ Making changes in the transactions, although in theory possible, would be impractical as it would require

⁴⁹ World Bank Group, “Distributed Ledger Technology (DLT) and blockchain, FinTech note, no. 1”, 2017, p.5, available on: <http://documents.worldbank.org/curated/en/177911513714062215/pdf/122140-WP-PUBLIC-Distributed-Ledger-Technology-and-Blockchain-Fintech-Notes.pdf>, accessed March 13, 2020.

⁵⁰ *Ibid*, p.11.

⁵¹ Nakamoto, *supra* note 26, p.2.

⁵² *Ibid*.

⁵³ *Ibid*, p.6.

⁵⁴ *Ibid*, p.3.

⁵⁵ World Bank Group, *supra* note 49, p.6.

⁵⁶ *Ibid*.

⁵⁷ EBA, *supra* note 16, p.19.

⁵⁸ Nakamoto, *supra* note 26, p.3.

⁵⁹ *Ibid*.

⁶⁰ World Bank Group, *supra* note 49, p. 1.

modifying not only the block of the intended transaction but also all the blocks thereafter by re-doing all the work previously done by the multitude of nodes and overtaking them in their current work.⁶¹

Cryptocurrency market operation is sustained by different types of participants each performing different activities. The main groups, whose activities may be related to or have effect on tax evasion, are:

1. Users – natural or legal persons operating with already existing (mined) units of cryptocurrencies which can be obtained in a variety of ways: received as a gift, purchased on exchange or from another user through peer-to-peer trading platform, received as a payment for goods, services or work, received through a hard fork (system update), mining or directly from coin offeror.⁶² Most of such income is subject to taxation. Likewise, the purposes cryptocurrencies are obtained for differ as well. The most common reasons for cryptocurrency acquisition are to use them for investment purposes, as a means of payment for personal remittances or as a medium of exchange in trade for goods or services.⁶³ Due to the high volatility such purposes as savings are unlikely.

2. Miners who obtain newly generated coins by resolving cryptographic puzzles through validation of transactions. The income miners receive for their work constitutes taxable return. However, currently the authorities have no access to the information about such income as no mechanism has been developed to detect when exactly and at what exchange rate new coins enter the circulation.⁶⁴

3. Exchange platforms being either pure cryptocurrency exchange or exchange to fiat currencies. Technically this is the easiest way to obtain and manage cryptocurrency funds and may include taxable funds of legal entities or individuals.

4. Providers of cryptocurrency wallets which can be in form of software, hardware or custodian where the wallet provider actually holds the funds on behalf of the customers. A wallet is indispensable for receiving and keeping cryptocurrency assets therefore every tax evasion event done exploiting cryptocurrencies will involve a wallet.

⁶¹ Nakamoto, *supra* note 26, p.3.

⁶² Houben and Snyers, *supra* note 31, p.25.

⁶³ EBA, *supra* note 16, p.19.

⁶⁴ Benjamin Molloy “Taxing the Blockchain: How Cryptocurrencies Thwart International Tax Policy”, *Oregon Review of International Law*, Vol. 20, 623 (2019): p.628. Available on: https://scholarsbank.uoregon.edu/xmlui/bitstream/handle/1794/24677/Molloy_ORIL20%282%29.pdf?sequence=1&isAllowed=y, accessed May 20, 2020.

5. Trading platforms providing peer-to-peer exchange. They often consist solely of a software without any identifiable human administrator⁶⁵ and may be used to hide taxable transactions or assets.

6. Merchants accepting cryptocurrencies – they can be engaged in tax evasion themselves not reporting taxable income or they can accept taxable assets on which tax has not been reported and/or paid.

Other participants such as coin inventors, offerors, technical service providers, information providers⁶⁶ are unlikely to affect the use of cryptocurrencies for tax evasion, therefore will not be dedicated further details.

1.2. Properties of cryptocurrencies facilitating tax evasion

Criminal behaviour of individuals in context of tax evasion has been analysed and explained from the perspectives of psychology, sociology and other sciences, however, it is best understood from economic point of view as the activity is primarily driven by financial goals.⁶⁷ Individuals, assuming their rationality, seek to maximize their wellbeing and may choose to apply illegal means to achieve better results.⁶⁸ Nonetheless, there is a cost for each crime that must be considered beforehand comparing with the potential return.⁶⁹ The main component of the cost is the punishment. According to the tax evasion deterrence model, not only the severity of the punishment matters but also its probability (likelihood of detection) and proportionality.⁷⁰ Additional elements that constitute the cost of crime are transaction costs, efficiency costs and reputation costs.⁷¹

The general advantages of cryptocurrencies over traditional means of payment are: (1) low transaction fees, (2) speed, (3) payment certainty (irreversibility of transactions), (4) global reach including financially underdeveloped countries, (5) personal data protection, (6) limited

⁶⁵ Houben and Snyers, *supra* note 31, p.27.

⁶⁶ EBA, *supra* note 16, p.19.

⁶⁷ Cooper, *supra* note 10, p.48.

⁶⁸ *Ibid.*

⁶⁹ Gary S. Becker “Crime and Punishment: An Economic Approach”, 76 *J. Pol. Econ.* 169 (1968): p.2, available on: <https://www.nber.org/chapters/c3625.pdf>, accessed March 20, 2020.

⁷⁰ J.Slemrod “Tax Compliance and Enforcement”, *NBER Working Paper No. 24799* (2018): p.7, available on: <https://www.nber.org/papers/w24799.pdf>, accessed April 10, 2020.

⁷¹ Cooper, *supra* note 10, p.137.

interference of authorities.⁷² Most of these characteristics contribute to the suitability of cryptocurrencies for tax evasion and decrease the cost of the crime.

The main concept of cryptocurrencies – anonymous peer-to-peer payment method independent of any authority – substantially encumbers the crime detection decreasing the likelihood of punishment to a petty level. As cryptocurrencies operate on software network which is not controlled or administered by a human intermediary, no identification information is (or can be) required and verified by the unmanned software when opening a cryptocurrency wallet or performing transactions. Although cryptocurrency transactions are publicly recorded and can be examined by anyone at any time,⁷³ the users are identified only by their cryptocurrency addresses consisting of a line of random numbers, that are almost impossible to be traced back to their real-world identity⁷⁴ indicating pseudo-anonymity of cryptocurrencies. Tracing of cryptocurrency transactions is complex and costly⁷⁵ therefore it can be applied only in cases of prior suspicion of infringement, but not for systemic supervision.⁷⁶ Establishing of suspicion in tax evasion cases may also be difficult as, on the contrary of money laundering and terrorism financing, the origin and destination of the funds in most cases are fully legal. The assets become illegal and the crime becomes effective only upon the lack of their inclusion in the tax declaration of the respective taxable period. Consequently, unless the recipient of the taxable income voluntarily reports it, the tax authorities are unlikely to discover it.⁷⁷

Additional means can be utilized to increase anonymity and reduce traceability. For example, while most cryptocurrencies are pseudo-anonymous, some cryptocurrencies use technologies that render them fully anonymous. Such cryptocurrencies are known as “privacy coins” providing strong privacy protection either by default or as an additional service.⁷⁸ For instance, mixing technique accompanying the cryptocurrency Dash transactions is one of them. The funds are mixed with the funds of other users and returned to the initial user but each time in a different address thus obfuscating the real origin.⁷⁹ Monero provides mixing of

⁷² EBA, *supra* note 16, pp.16-20.

⁷³ Latest blocks, available on: <https://www.blockchain.com/explorer>

⁷⁴ IMF, *supra* note 21.

⁷⁵ Houben and Snyers, *supra* note 31, p.51.

⁷⁶ Marian, *supra* note 19, p.46.

⁷⁷ *Ibid*, p.6.

⁷⁸ Aziz Zainuddin “Guide on Privacy Coins: Comparison of Anonymous Cryptocurrencies” (2017), available on: <https://masterthecrypto.com/privacy-coins-anonymous-cryptocurrencies/>, accessed March 15, 2020.

⁷⁹ Dash, Features. Private send. Available on: <https://docs.dash.org/en/stable/introduction/features.html#privatesend>

account's keys among users to obscure the identity of the remitters and receivers.⁸⁰ It also creates stealth addresses through which the transactions are directed in order to confuse the trail.⁸¹ Zcash has created a system that generates the proof required by the blockchain to confirm the transaction without revealing any information save for the validity of the proof itself.⁸² These are but few of fully anonymous cryptocurrencies in the market.

Currently the government authorities lack tools for tracing such anonymous transactions at all.⁸³ High rewards have been announced by governments of different countries worldwide for creating and providing such tools.⁸⁴ For example, the U.S. Department of Homeland Security at the end of 2018 published a solicitation of applications of blockchain forensic analytics which may include any type of tool in any stage of development either general, extensible or providing only working approaches and which may be approached in any manner considering different data situation use cases requiring or not requiring additional data from other sources.⁸⁵ It is explicitly indicated in the solicitation that a Bitcoin analytics problem has already been addressed previously and the current solicitation is aimed at the newer cryptocurrencies of enhanced privacy specifically pointing out Monero and Zcash. A more recent contract opportunity in the amount of GBP 100,000 for development or provision of a cryptocurrency transaction analytics tool in the beginning of 2020 was announced by the tax authority of the UK (HMRC). The main purpose for its search for such a tool is particularly the control and detection of tax liabilities of cryptocurrency users.⁸⁶

Other ways to reinforce the privacy protection are to create a different address for each transaction,⁸⁷ to use offline wallets instead of online or custodian wallets, to use a Virtual Private Network or a private internet browsers such as Tor to obscure the IP address and

⁸⁰ Shen Noether, Adam Mackenzie and Monero Core Team "Ring Confidential Transactions", *Monero Research Lab* (2016): pp.8-9, available on: <https://web.getmonero.org/resources/research-lab/pubs/MRL-0005.pdf>. Accessed March 15, 2020.

⁸¹ Zainuddin, *supra* note 78.

⁸² What are zk-SNARKs? Available on: <https://z.cash/technology/zksnarks/>. Accessed 15.03.2020.

⁸³ Abraham Hinteregger, Bernhard Haslhofer "An Empirical Analysis of Monero Cross-Chain Traceability" conference paper of Financial Cryptography and Data Security (2019), available on: <https://arxiv.org/pdf/1812.02808.pdf>, accessed March 20, 2020.

⁸⁴ Kieran Smith "How Crypto Could Bring Tax Evasion to the Masses". 2019. Available on: <https://onezero.medium.com/how-crypto-could-bring-tax-evasion-to-the-masses-bb4060766147>. Accessed March 20, 2020.

⁸⁵ Catalin Cimpanu "DHS looking into tracking Monero and Zcash transactions" (2018). Available on: <https://www.zdnet.com/article/dhs-looking-into-tracking-monero-and-zcash-transactions/>. Accessed March 15, 2020.

⁸⁶ HM Revenue & Customs. Request for Proposal No SR302926154. 13th January 2020. Available on: <https://www.contractsfinder.service.gov.uk/Notice/ec88ae4b-4f4c-4926-982a-723636cf2f82?p=1>, Accessed 12.04.2020.

⁸⁷ Nakamoto, *supra* note 26, p.6.

location of the user,⁸⁸ use peer-to-peer trading platforms for transactions and ATMs for withdrawals instead of regulated exchanges, to utilize fork-merge structures dividing the payments into smaller amounts and re-joining afterwards, using temporary intermediate accounts as well as other techniques.⁸⁹

Another reason for hiding taxable assets in a cryptocurrency account is the lack of jurisdiction in charge. Cryptocurrencies by design are detached from any country or physical location.⁹⁰ Cryptocurrency wallets operate in cyberspace which is “a world that is both everywhere and nowhere”.⁹¹ As there is no jurisdiction of actual location of the accumulating assets, they are not subject to taxation at source.⁹² Taking into account the anonymity and the unlikelihood of authorities to discover the taxable income unless it is expressly reported, the recently established framework against the traditional tax-evasion tools, namely international cooperation and information exchange between authorities, becomes irrelevant.⁹³ In order to cooperate and exchange the information, the authorities need to be aware of the taxable assets which they are generally not.

Identically to the absence of defined jurisdiction, cryptocurrencies lack also central administrator and supervisory authority. The major success in restraint of tax evasion via fiscal havens so far has been the Foreign Account Tax Compliance Act (FATCA) for the USA and the Common Reporting Standard (CRS) for the rest of the world. Accordingly, banks worldwide are required to share the financial information of foreign account holders to the tax authorities of their home countries.⁹⁴ From financial services intermediaries the banks have become tax intermediaries.⁹⁵ This success however is limited to the traditional financial services as no such regulations can be extended to cryptocurrency operations. Pseudo-

⁸⁸ Christian Scheinert “Virtual currencies Challenges following their introduction”. European Parliamentary Research Service. Briefing March 2016, pp.1-10. Available on: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/579110/EPRS_BRI\(2016\)579110_EN.pdf?utm_campaign=e4&utm_medium=social&utm_source=FRblog&utm_content=areregulatorsready](https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/579110/EPRS_BRI(2016)579110_EN.pdf?utm_campaign=e4&utm_medium=social&utm_source=FRblog&utm_content=areregulatorsready). Accessed: March 20, 2020.

⁸⁹ Gruber, *supra* note 18, p.177.

⁹⁰ Deidre A. Liedel, "The Taxation of Bitcoin: How the IRS Views Cryptocurrencies," *Drake Law Review* 66, no. 1 (2018): p.142.

⁹¹ John Perry Barlow “A Cyberspace Independence Declaration”, 1996, available on: <https://www.eff.org/cyberspace-independence>, accessed 24.03.2020.

⁹² Marian, *supra* note 19, p.42.

⁹³ Houben and Snyers, *supra* note 31, p.55.

⁹⁴ OECD *Standard for Automatic Exchange of Financial Account Information in Tax Matters*, OECD Publishing (2014), available on: https://read.oecd-ilibrary.org/taxation/standard-for-automatic-exchange-of-financial-account-information-for-tax-matters_9789264216525-en#page1, accessed 15.02.2020.

⁹⁵ Marian, *supra* note 19, p.41.

anonymous and operated purely by software, cryptocurrency account data is for all intents and purposes impossible of being shared with tax authorities.⁹⁶

When assessed as a general benefit of cryptocurrencies, the cost of cryptocurrency transactions is noteworthy. The total cost of transactions depends on the cryptocurrency and the amount of transaction. For example, the cost for a small Bitcoin transaction in amount of USD 20 – 200 is approximately 2,85 % while for Ethereum it is 0,07 % and for Bitcoin Cash only 0,0047%.⁹⁷ Increasing the amount of transaction, the fees decrease approaching 0%.⁹⁸ At the same time international fiat currency transfers are substantially more expensive, banks charging 10,46 %, money transfer operators, which include the innovative fintech service providers, take 6,5 % and the mobile operators 3,14 % (2019 data).⁹⁹

Nevertheless, the cost of cryptocurrency transactions becomes even more appreciable when seen as a transaction cost of the tax evasion crime. Utilization of the traditional tax evasion tools such as entity registration and use of banking services in tax neutral jurisdictions protected by bank secrecy laws cause major expenses. The costs increase notably if additional services are used to hinder the detectability of the illicit activities, for instance, nominated director and shareholder services, virtual local offices etc. The costs may also increase along with the amount to be hidden as the evasion would become more difficult to achieve.¹⁰⁰ On the other hand, the cost of cryptocurrencies is low and stays low notwithstanding the amount stored in the wallet. Moreover, cryptocurrency wallets can be created as many as needed free of cost or at the cost of hardware in case of the use of offline wallets. Hence, the efficiency of tax evasion crime does not have any additional cost.

The effect of high transaction costs of crime is reduction of the return.¹⁰¹ Due to the high costs of the tax-free offshore services, previously only wealthy individuals could afford saving additional funds on taxes.¹⁰² The return must exceed the costs of incorporating the offshore entities, opening bank accounts, paying the usually high offshore bank fees, probably hiring and appointing nominee directors and other services. Now, however, with

⁹⁶ *Ibid*, p.42.

⁹⁷ Data: <http://cryptofees.net/>, accessed 27.03.2020.

⁹⁸ *Ibid*.

⁹⁹ The World Bank, *Remittance Prices Worldwide*, Issue 32, December 2019, p11. Available on: https://remittanceprices.worldbank.org/sites/default/files/rpw_report_december_2019.pdf. Accessed March 27, 2020.

¹⁰⁰ Cooper, *supra* note 10, p.138.

¹⁰¹ *Ibid*.

¹⁰² Azam, *supra* note 1, p.535.

cryptocurrencies everyone can stash some untaxed money in a cryptocurrency wallet, even small amounts that would be unprofitable if stored in a tax haven.

Taking into account the above described properties of cryptocurrencies, the cost of tax evasion performed exploiting cryptocurrencies, can be assessed as very low. The likelihood of detection is reduced due to anonymity and limited traceability, while the transaction costs are low rendering high return. Such favourable conditions make cryptocurrencies particularly convenient for successful and profitable for tax evasion.

The taxes can be evaded or tax liability artificially reduced by the exploitation of cryptocurrencies in the following ways:

1. Receipt and non-reporting of any income subject to taxation.¹⁰³ Given the favourable properties of the cryptocurrencies, reduced traceability and partial anonymity, any typically taxable transaction when performed using cryptocurrencies instead of regulated financial services poses risk of resulting in tax evasion. Such transactions may be salaries, wages,¹⁰⁴ gifts, income from sale of property, inheritance,¹⁰⁵ as well as other payments, for example airdrops which are payments sent to the existing virtual currency addresses for advertising purposes of a new virtual currency¹⁰⁶ and which is not practiced for fiat currencies.
2. Maintaining a cryptocurrency wallet for business aside from the official accounting. Since the cryptocurrency wallets and transactions may be anonymous, corporate entities as well as professional individuals may maintain such wallets for receiving income for goods and services from their regular business activities.¹⁰⁷ Such income may not get further included in the accounting, consequently not reported to the tax authorities and the respective tax not paid.
4. Receiving income generated entirely by the cryptocurrency system. Such income includes remuneration for the mining activity and income from system updates (hard forks). The income from mining is not a typical salary or payment for professional services, nevertheless

¹⁰³ Austin Elliott, "Collection of Cryptocurrency Customer-Information: Tax Enforcement Mechanism or Invasion of Privacy," *Duke Law & Technology Review* 16 (2017-2018), p.6.

¹⁰⁴ Elliott, *supra* note 103, p.6.

¹⁰⁵ Witold Srokosz, "The use of cryptocurrencies for tax evasion and tax fraud", in *Tax Law vs Tax Frauds and Tax Evasions. Non – conference proceedings of scientific papers, Vol 2*, ed. Vladimir Babcak et al (Kosice: Univerzita Pavla Jozefa Safarika v Kosicach, 2015), p. 257.

¹⁰⁶ <https://airdrops.io/>

¹⁰⁷ Liedel, *supra* note 90, p.118.

it does increase the individual's assets hence it constitute a taxable income.¹⁰⁸ The system updates may occasionally generate additional income to the holders of the respective cryptocurrency. For example, on the 1st August 2017 all the holders of Bitcoin received the same amount of Bitcoin Cash which was a new cryptocurrency created as a consequence of that update.¹⁰⁹ Such forks occasionally happen, the additional coins are received by the cryptocurrency holders non-intentionally as they are awarded automatically, however they constitute a taxable income.

5. Increase in value of the cryptocurrency.¹¹⁰ If the value of the cryptocurrency upon the disposal thereof has increased, the person has obtained gains. Here the details of each national legislation regarding the applicable tax regime and the time period of holding the cryptocurrency come into play, however such details are outside the scope of this thesis.

8. Sophisticated legal arrangements may be structured taking advantage of the partial anonymity of the cryptocurrency transactions with the purpose to circumvent the tax obligations. Such arrangements would rather constitute legal but unwanted tax avoidance than illicit tax evasion. Nevertheless, the purpose is equivalent – tax minimization therefore these arrangements deserve short insight. A commonly practiced arrangement is tax-free borrowing of cash using the cryptocurrency as a collateral instead of selling it with taxable gains.¹¹¹ A sample of a more complicated arrangement might be investment in traded securities or commodities through a third-party tax exempt agent using a cryptocurrency swap contract. As a result, a cryptocurrency owner transfers a certain amount of the cryptocurrencies to the investor who purchases the planned investment (stock, commodities etc.), holds, sells as instructed, pays the dividends, if any, and pays appreciation or receives depreciation from the cryptocurrency owner upon the sale of the asset.¹¹² Even more complex arrangements could be constructed taking advantage of the different legal status and regulatory requirements of cryptocurrencies in different jurisdictions depending on the creativity and agility of the tax specialist.

¹⁰⁸ Srokosz, *supra* note 107, pp.257 – 258.

¹⁰⁹ Houben and Snyers, *supra* note 31, p.35.

¹¹⁰ Elliott, *supra* note 103, p.6.

¹¹¹ Smith, *supra* note 84.

¹¹² Marian, *supra* note 19, p.43.

2. Regulation of cryptocurrencies targeting tax evasion

The previous chapter introduced cryptocurrencies and explained their suitability for tax evasion. This chapter will deal with the countermeasures – the regulation of cryptocurrencies targeted to prevent and reduce their exploitation as a tool for tax evasion. In the first subchapter, the regulatory challenges will be identified. The legislation in force in the EU aimed at prevention of tax evasion and its applicability to the cryptocurrencies will be analysed in the second subchapter.

The first cryptocurrency Bitcoin was created in 2008 that coincides with the time of the global financial crisis. Its quick approval and the subsequent growth of popularity was stimulated by the imprudent activities and inattentive customer service by the banks during that time¹¹³ which were blamed for “parasitic business-model” earning great income with scarce effort.¹¹⁴ Additionally, such advantages of cryptocurrencies as the cost and speed of transactions, global reach, financial inclusion and independence from intermediaries and authorities¹¹⁵ pose serious competition to the banking services. Only the recently developing fintech technologies which include innovative payment services software, for example, mobile payment apps, may in such aspects as cost and efficiency match the performance of cryptocurrencies. By altering the competitive dimensions of the banking industry and the

¹¹³ Barrett, *supra* note 41, p.40.

¹¹⁴ Pascal Witzig and Victoryia Salomon “Cutting out the middleman: a case study of blockchain-induced reconfigurations in the swiss financial services industry”, Institut de sociologie / GRET, Working paper (2018): p. 11, available on: http://www.unine.ch/files/live/sites/maps/files/shared/documents/wp/WP-1_2018_Witzig%20and%20Salomon.pdf, accessed 20.05.2020.

¹¹⁵ EBA, *supra* note 16, p.16-20.

settled behaviour of its customers,¹¹⁶ cryptocurrencies disrupt the traditional financial services market requiring due attention.

The first arising question is whether the new technology should be regulated in any particular way or should the market be left free.¹¹⁷ Disruptive innovations have been made at all times throughout the history, however, previously it could take even up to centuries to fully introduce the changes in the market and society¹¹⁸. Accordingly, the regulations used to develop slowly and naturally along with the expansion of the respective technologies. However, today with the rapid development of innovation and the global spread thereof, creation of novel regulations becomes pressing.¹¹⁹

Initially cryptocurrencies were used by small communities of IT-savvy people and there was no necessity to regulate the trade as the market capitalization was low and the small number of the involved people were mostly fully aware of the operational processes and the prospective outcomes. Growing the expansion of the use of cryptocurrencies, international organizations started drawing attention of the national and international regulators to the possible adverse consequences of the underregulation of the cryptocurrency transactions. In the “Opinion on ‘Virtual Currencies’” of 2014 the European Banking Authority (EBA) listed 70 risks of different nature and gravity of the use of cryptocurrencies.¹²⁰ The risk of tax evaders obtaining income in virtual currencies outside monitored fiat currency payment systems is indicated under the risks to financial integrity and is ranked as medium regarding the necessity to create efficient regulation and supervision.¹²¹ European Parliamentary Research Service (EPRS) in the same year, while admitting that cryptocurrencies have “high potential for tax evasion”, clarified that the scale of tax evasion was not likely to be high as the number of Bitcoins available was not large enough and its volatility in value was too high.¹²² In its briefing the EPRS analysed only Bitcoin as the market capitalization of the other cryptocurrencies at that time was too insignificant.

¹¹⁶ M. K. Kolacz *et al* “Who Should Regulate Disruptive Technology?”, 10 *Eur. J. Risk Reg.* 4 (2019), p.9.

¹¹⁷ Valente, *supra* note 17, p.548.

¹¹⁸ M. K. Kolacz and A. Quintavalla “Law in the Face of Disruptive Technology, an Introduction”, 10 *Eur. J. Risk Reg.* 4 (2019), p.1.

¹¹⁹ *Ibid.*

¹²⁰ EBA, *supra* note 16, p.22.

¹²¹ *Ibid.*

¹²² European Parliamentary Research Service, *Bitcoin: Market, Economics and Regulation*, Briefing, 7 (2014): p.7, available on: [https://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140793/LDM_BRI\(2014\)140793_REV1_EN.pdf](https://www.europarl.europa.eu/RegData/bibliotheque/briefing/2014/140793/LDM_BRI(2014)140793_REV1_EN.pdf), accessed April 20, 2020.

Since the issue of the above cited EPRS briefing the situation has changed substantially. Although the number of Bitcoins has increased only by 50 % (from 12,6 million in the 2nd quarter of 2012 to 18,3 million in the 1st quarter of 2020),¹²³ the number of cryptocurrencies existing in the market has grown from a few dozens in 2014 to more than 5500 in 2020¹²⁴ and the total market capitalization thereof has increased from 6 billion USD in April 2014 to 220 billion in April 2020.¹²⁵ With the current expansion of cryptocurrencies the EPRS argument about the scale of tax evasion cannot be relied on anymore and taxes can be evaded in as large amounts as any entity or individual may intend. Hence, the regulation targeting exploitation of cryptocurrencies for tax evasion purpose has turned indispensable.

2.1. Regulatory challenges

2.1.1. The regulator

To produce the regulation, the initial task is to determine who the regulator will be. The typical process of sovereign governments issuing laws in their own countries is not applicable to cryptocurrencies. The main reason is the intrinsically global nature of cryptocurrencies in contrast to the geographically limited reach of the national governments. Cryptocurrencies operate in the Cyberspace which has no geographic limitations, it may include all the jurisdictions each of them willing to produce their own regulation¹²⁶ according to their own criteria. Fragmentation through national legislation may cause severe inconsistencies¹²⁷ especially when international operation is concerned as is the case of cryptocurrencies.

In this aspect counter tax evasion regulation is particularly complicated. Tax sovereignty granting the states full authority to regulate taxation of their residents and citizens is a fundamental concept in the international arena.¹²⁸ This concept is maintained within the operation of the EU as the tax laws of direct taxes (income and corporate) have not been harmonized provided that they do not affect the fundamental freedoms and operation of the

¹²³ Number of Bitcoins in circulation worldwide from 4th quarter 2012 to 1st quarter 2020, available on: <https://www.statista.com/statistics/247280/number-of-bitcoins-in-circulation/>, accessed April 22, 2020.

¹²⁴ Top 100 Cryptocurrencies by Market Capitalization. Available on: <https://coinmarketcap.com/>. Accessed April 24, 2020.

¹²⁵ *Ibid.*

¹²⁶ Valente, *supra* note 17, p.543.

¹²⁷ *Ibid.*, p.548.

¹²⁸ Azam, *supra* note 1, p.546. pp.531 – 532.

common market.¹²⁹ The taxation system of the USA in this sense is in a more advantageous position as the Internal Revenue Service is in charge of taxation regulation, enforcement and tax-evasion combat. Having only one institution in charge is more efficient in terms of costs and resources and may also be more effective in achieving results.

Moreover, conflicts between the national tax laws of different countries may create such inconsistencies where tax avoidance is rendered fully legal.¹³⁰ Especially in the current digital age where the income is generated globally lack of a unified tax regime or at least basic criteria thereof permits the taxpayers to choose the most convenient tax regime for their purposes consequently generating stateless income which is not subject to taxation in any jurisdiction.¹³¹ The academic and tax expert Piergiorgio Valente has qualified such inconsistent patchwork of different tax regimes as a “pathological system”.¹³²

Lacking unified taxation regulations, a complex international network has been created to deal solely with the evasion of taxes allegedly due to any country respecting the tax sovereignty and the differences in the tax regimes. Convention on Mutual Administrative Assistance in Tax Matters, Common Reporting Standard and Automatic Exchange of Information require cooperation between the tax agencies of the countries acting on behalf of each other applying their own tax regime and criteria thereof. The same problem exists within the EU. Nevertheless, only when elevated to a sufficiently international level the combat with the offshore tax evasion became successful.¹³³ Likewise, the same must be true for cryptocurrency regulation due to their international nature.

As the necessity for a global regulation is established and the national governments having been admitted insufficient due to their limited geographical reach, the level and method of international cooperation must be determined. International treaties comprising nearly all the jurisdictions in the world are occasionally being signed especially in the areas of human rights, peacekeeping, environment protection and others, so it might be expected that certain regulation of cryptocurrencies might be achieved this way. Nevertheless, two important drawbacks of treaty regulation are the excessive time that is required for the elaboration and

¹²⁹ EU Taxation and Customs Union. Available on: https://ec.europa.eu/taxation_customs/business/company-tax/overview_en. Accessed April 24, 2020.

¹³⁰ Piergiorgio Valente “Taxless Corporate Income: Balance against White Income, Grey Rules and Black Holes”, *European Taxation*, 2017 (Volume 57), No 7 (2017), p.275.

¹³¹ *Ibid*, p.276.

¹³² *Ibid* p.277.

¹³³ Azam, *supra* note 1, p.543.

signing of a treaty as well as the willingness of the countries to surrender their liberty of action in the respective domain. The more stringent the rules intended, the higher possibility for the countries not signing the treaty become havens in the respective field.¹³⁴ As taxing and tax evasion prevention are particularly sensitive subject for many countries, it is highly unlikely to be included in a willingly concluded treaty. It may require stricter measures to convince or force non-willing countries to cooperate in order to reach efficient globally unified anti-tax evasion regulation on cryptocurrencies.

At the same time, such option as self-regulation must not be overlooked as it is recommended by academic experts in a form of concession between government regulators and market participants,¹³⁵ and is currently practiced in regulation of other areas of international digital services such as search engines, social media platforms, e-commerce platforms and others (Google, Facebook, Amazon etc.).¹³⁶ The control of the Cyberspace from outside is difficult¹³⁷ hence to reach efficiency of the regulation, cooperation between the regulators and the regulated is indispensable.¹³⁸

2.1.2. Legal framework

Not only the fragmentation between the countries is problematic in elaboration of efficient regulation of cryptocurrency operations. Cryptocurrencies comprise characteristics of different currently known and used instruments such as money, commodities, property, payment systems.¹³⁹

As indicated by the denomination, the cryptocurrencies are intended to constitute money alternative to fiat currencies such as EUR, USD, CHF etc. They were created as “electronic cash” exchangeable peer-to-peer online worldwide.¹⁴⁰ Nonetheless, while money may have different definitions in academic, legal and economic literature, cryptocurrencies do not include some important properties of money such as issuance and control of the state,

¹³⁴ Michiel Brand, "The Internet and the Law: An Article Examining the Problems and Questions Concerning the Regulation of Cyberspace," *Tilburg Foreign Law Review* 9, no. 3 (2001-2002), p.269.

¹³⁵ Barrett, *supra* note 41, p.40.

¹³⁶ Marta.C. Gamito, "Regulation.com. Self-Regulation and Contract Governance in the Platform Economy: A Research Agenda," *European Journal of Legal Studies* 9, no. 2 (Spring 2017), p.55.

¹³⁷ Rosa.M. Lastra and Jason.G. Allen “Virtual currencies in the Eurosystem: challenges ahead. Monetary Dialogue”, Policy Department for Economic, Scientific and Quality of Life Policies (2018), p.13. Available on: https://www.europarl.europa.eu/cmsdata/150541/DIW_FINAL%20publication.pdf, accessed 01.05.2020.

¹³⁸ Barrett, *supra* note 41, p.44.

¹³⁹ IMF, *supra* note 21, p.24.

¹⁴⁰ Nakamoto, *supra* note 26, p.1.

physical representation in bills and coins,¹⁴¹ mandatory acceptance in the designated territory, use as an independent unit of account and ability to serve as a reliable store of value due to volatility.¹⁴²

Some countries of the EU and outside, including Austria, Czech Republic and USA, have admitted cryptocurrencies as commodities for taxation purposes placing them among gold, oil, corn and other goods and products. In the EU commodities are defined by the Regulation supplementing the EU Directive on markets in financial instruments as

goods of a fungible nature that are capable of being delivered, including metals and their ores and alloys, agricultural products, and energy such as electricity.¹⁴³

Cryptocurrencies cannot be considered goods and are not capable of being physically delivered. Another characteristic of commodities is the intrinsic value of the goods comprised under the term “commodities”. Cryptocurrencies have no intrinsic value, they are just digital representation of value which is determined solely by the supply and demand.¹⁴⁴ And ultimately, the pseudo-anonymous cryptocurrencies (the ones that do not use enhanced anonymity measures and which comprise the majority of the cryptocurrencies available on the market, for instance, Bitcoin, Ripple, Stellar) are actually not fungible although they were intended upon their creation to be fungible just like the bills and coins of fiat money. Due to the information recorded of each unit of a particular cryptocurrency on the public ledger, the history of each unit can be traced back to its beginning, and currently many exchanges and merchants tend not to accept the cryptocurrencies which have in their past been connected or suspected to be connected with illicit or questionable activity.¹⁴⁵ Consequently the value of the ‘dirty units’ actually differ from the value of the ‘clean units’ making them unfungible. For the above reasons, cryptocurrencies do not correspond to the EU definition of commodities therefore they are not commodities *per se*.

The aim of the intent to qualify the cryptocurrencies under one of the above categories is to determine whether it is possible to place them under a pre-existing regulatory frame-work, of course, introducing respective amendments, or is an entirely new legislation required. It will

¹⁴¹ Lastra, *supra* note 137, p.10.

¹⁴² IMF, *supra* note 21, pp.16 - 17.

¹⁴³ Article 2 (6), Commission Delegated Regulation (EU) 2017/565 of 25 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive (Text with EEA relevance) *OJ L 087* 31.3.2017.

¹⁴⁴ Lastra, *supra* note 137, p.10.

¹⁴⁵ Liedel, *supra* note 90, p.123.

also determine which agencies at the national level will control and supervise them and which tax regime will be applied at currently non-unified sovereign national level. It will also determine which legal acts exactly will need to be amended to include the requirements aimed at tax evasion prevention.

2.1.3. Subjects of the regulation

The subjects of the taxation legislation have always been directly the taxpayers – individuals and corporations who, upon receiving taxable income, have the duty to report it and pay the corresponding taxes on it. However, not all the individuals and corporations do so. As on the contrary of money laundering and terrorism financing the income of the tax evaders may be comprised of fully legal transactions, they are little likely to be spotted as suspicious transactions and thus reported to the respective authorities. For this reason, the only way to deal with the tax evasion efficiently is by furnishing the tax authorities full information of the total global income of the taxpayers. Hence, the tax evasion prevention legislation targets the entities that are in possession of such information. Those are the intermediaries inevitably required for the execution of transactions of the taxpayers – banks and other financial institutions. Only by receiving complete information of the total global income of a taxpayer, the authority can detect any unreporting or underreporting thereof. It also places the taxpayers in the position where they have hardly any opportunity to hide the revenue from the authorities and successfully avoid paying taxes on it.¹⁴⁶ The Internal Revenue Service of the USA has admitted that it is almost impossible to detect tax evasion without international reporting only by using the local tools such as tax audits.¹⁴⁷ Furthermore, the experts of the European Commission’s Directorate-General for Taxation and Customs Union have declared in the Working paper on International Tax Evasion that fighting international tax evasion is “all about information sharing.”¹⁴⁸

Initiatives to establish international exchange of information with different scope, geographical coverage and different levels of success have been present for the last three

¹⁴⁶ Vellutini, *supra* note 7, p.37.

¹⁴⁷ Treasury Inspector General for Tax Administration “A Combination of Legislative Actions and Increased IRS Capability and Capacity Are Required to Reduce the Multi-Billion Dollar U.S. International Tax Gap” (2009), available on: <https://www.treasury.gov/tigta/iereports/2009reports/2009IER001fr.html>, accessed April 28, 2020.

¹⁴⁸ Vellutini, *supra* note 7, p.37.

decades.¹⁴⁹ The latest and the most successful initiatives in this regard have been the Foreign Account Tax Compliance Act (FATCA) introduced by the USA and the Common Reporting Standard (CRS) as a part of the Automatic Exchange of Information (AEOI) which require the banks and financial institutions globally to report the balances of the non-resident accounts to the respective tax authorities.¹⁵⁰ For instance, the CRS refers to the custodian, depository and investment services providers such as banks, brokers, investment funds.¹⁵¹ The AMLD includes even wider scope of obliged entities such as financial and credit institutions, auditors, accountants, tax advisors, notaries, trust service providers, estate agents, gambling service providers, traders of expensive goods receiving cash payments, and traders of expensive art works. Part of the above entities are obliged to report under the AMLD not being obliged under other tax evasion prevention legislation as the scope of the AMLD is wider and aimed primarily at combatting money laundering and terrorism financing, not only tax evasion.¹⁵²

Nonetheless, the decentralized nature of cryptocurrencies disrupts the traditional regulatory model as there is no central intermediary to regulate.¹⁵³ Although the record of all the transactions is publicly available, they do not contain any identifying information about the payers or receivers of the funds.¹⁵⁴ Only a line of digits is recorded that represents the wallets of the transaction parties however, such wallets may be created in anonymous way and each user may create any number thereof.¹⁵⁵

The experts, such as R. Houben¹⁵⁶ and P. Valente¹⁵⁷, claim that the primary task of the regulation of cryptocurrencies is to unveil the anonymity. However, for many cryptocurrencies such as Bitcoin, Litecoin, Monero and others that operate on permissionless blockchains, there is no one who might bear this duty and request the identifying information

¹⁴⁹ *Ibid*, p.38.

¹⁵⁰ OECD (2017), *Standard for Automatic Exchange of Financial Account Information in Tax Matters*, OECD Publishing, Paris. Available on: <http://dx.doi.org/10.1787/9789264267992-en>. Accessed April 24, 2020, p.44 – 47.

¹⁵¹ *Ibid*.

¹⁵² Article 2, Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU (Text with EEA relevance), *OJ L 156*, 19.6.20, p. 43–74. Available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32018L0843> Accessed February 3, 2020.

¹⁵³ IMF, *supra* note 21, p.25.

¹⁵⁴ Nakamoto, *supra* note 26, p.6.

¹⁵⁵ Gruber, *supra* note 18, p.204.

¹⁵⁶ Robbie Houben “Cryptocurrencies from a money laundering and tax evasion perspective”, *International Company and Commercial Law Review*, 30 (5), (2019), p.263.

¹⁵⁷ Valente, *supra* note 17, p.548.

from the users. The ledger is maintained by independent nodes which only technically confirm the transactions. The exchange may take place peer-to-peer on trading platforms operated purely by software. Other ways exist to trade cryptocurrencies outside the regulated exchanges. The wallets can also be operated only by software and even created offline. No identification is carried out to access the account. The balance therein simply belongs to an individual who has the “password” (the private key).¹⁵⁸

In a way the cryptocurrency accounts resemble bearer shares through which the company equity belongs to the person who physically possesses the share certificate thereof – just a paper without any names. Following the FATF Recommendations of 2012,¹⁵⁹ the bearer shares have been prohibited in most countries in the world or immobilized in the few other such as Luxembourg, Panama and BVI, in order to prevent their use for money laundering and tax evasion. When comparing with cryptocurrencies, bearer shares did not have any major additional benefits than the anonymity and quick transfer therefore their elimination could not be strongly objected. Cryptocurrencies, on the other hand, cannot be so easily banned as they provide additional benefits not only regarding the cryptocurrency payments (speed of transactions, global reach, inclusion of financially underdeveloped territories) but also the technological progress and innovation which must not be bluntly halted.

The picture looks better regarding cryptocurrencies operated on permissioned blockchains. Here the regulations to certain extent can be directed to the owners or administrators of the blockchains although such extent could rarely fully cover tax evasion prevention as the administrators usually approve the participants of the cryptocurrency network (the nodes) but do not control their operation and transactions, however different degrees of control are possible.¹⁶⁰

Other addressees of regulations include the existing intermediaries that currently operate in the market. Such intermediaries need not be created by governments as they are usually created by the market itself. On the contrary to the original cryptocurrency concept to evade trust and third party services, the intermediaries are not simply agents of the transacting

¹⁵⁸ Thomas Slattery, "Taking a Bit out of Crime: Bitcoin and Cross-Border Tax Evasion," *Brooklyn Journal of International Law* 39, no. 2 (2014), p.832.

¹⁵⁹ FATF (2012-2019), *International Standards on Combating Money Laundering and the Financing of Terrorism & Proliferation*, FATF, Paris, France, www.fatf-gafi.org/recommendations.html. Accessed May 5, 2020.

¹⁶⁰ World Bank Group, *supra* note 49, p.11.

parties but with their services provide added value to the market.¹⁶¹ The intermediaries that have emerged in the cryptocurrency sector are commonly used in practice due to convenience, easier use or other reasons.¹⁶² For instance, such intermediaries might operate on a more user-friendly software, have personalized approach including customer service and troubleshooting, no need to remember or keep safe the private keys since access may be regained in the personal e-mail using “forgot password” option and many other benefits that are not provided by a simple decentralized software. Nevertheless, the regulated exchanges performing full Due Diligence on their customers are little likely to be utilized when intending to hide the assets from tax authorities if software operated unmanned alternatives are easily available in the market.

2.1.4. Overregulation

There are several harms that excessive requirements regarding customer identification and reporting of the transactions or account balances would do to the cryptocurrencies. Firstly, such requirements will substantially reduce one of their main advantages – the low cost of transactions. Maintaining an adequate, professional and efficient compliance department in financial institutions incurs considerable costs. For instance, the average direct annual cost of compliance per financial institution in the US and Canada is approximately USD 14 million¹⁶³ while in the Western European countries (France, Italy, Netherlands, Germany and Switzerland) the average exceeds USD 20 million.¹⁶⁴ The salaries to qualified specialists are quite high correlating with their responsibility and constitute 74% of the total compliance cost.¹⁶⁵ Eventually the clients are required to cover these costs by paying higher fees and charges. If cryptocurrency service providers were subjected to similar compliance requirements, they would need to charge considerably higher fees from their customers.

The increase in fees for the services would consequently reduce the amount of cryptocurrency users. Even if the fees were still lower than the fees in the banking sector, for the reason of convenience, habit or lack of motivation the users might continue using the

¹⁶¹ Omri Marian “A Conceptual Framework for the Regulation of Cryptocurrencies”, The University of Chicago Law Review 82:53 (2015): p.58.

¹⁶² IMF, *supra* note 21, p.25.

¹⁶³ LexisNexis Risk Solutions, *True Cost of AML Compliance Study, United States and Canada Edition*, (2019), p.4.

¹⁶⁴ LexisNexis Risk Solutions, *Survey Report The True Cost of Anti-Money Laundering Compliance European Edition*, (2017), p.8.

¹⁶⁵ *Ibid*, p.3.

bank services or turn to fintech providers. Alternatively, they can turn from transparent cryptocurrency service providers to the “underground” market.¹⁶⁶ Reduced interest in cryptocurrencies would also hinder the technological progress and innovation.¹⁶⁷ Such condition is not encouraged as apart from cryptocurrencies the use of distributed ledger and blockchain technologies has great potential in other areas.¹⁶⁸

Additionally, such requirements would entirely destroy the original concept of the cryptocurrencies as transactions with no need to trust to a third party. Nevertheless, most cryptocurrency users today are not troubled by the “original idea” of the cryptocurrencies as the use of cryptocurrencies has passed from the ideological level to the practical level and a great part of transactions in cryptocurrencies are actually done through intermediaries.¹⁶⁹

2.2. Assessment of the current regulation

The tax evasion prevention legislation in the EU has formed taking into account the following two aspects:

- (a) the taxation is not harmonized in the EU but instead is governed by each Member State independently and supervised by distinct tax authorities; and
- (b) the tax evasion combat globally is based on information sharing between tax authorities or from financial institutions to tax authorities.

Consequently, the primary purpose of such legislation is creation of a network of cooperation between the tax administrations of the Member States and constant improvement of its efficiency. In regard to tax administration the European Commission emphasizes that the duty of taxation and combat with tax fraud and evasion pertains to the Member States, however, the EU competence is to provide respective legislation as well as IT and other means for effective cooperation and exchange of information between the national tax

¹⁶⁶ Marc Hochstein *et al*, Beyond KYC: Regulators Set to Adopt Tough New Rules for Crypto Exchanges, 11.06.2019, available on: <https://www.coindesk.com/beyond-kyc-global-regulators-appear-set-to-adopt-tough-new-rules-for-crypto-exchanges>, accessed 11.11.2019.

¹⁶⁷ IMF, *supra* note 21, p.25.

¹⁶⁸ Houben and Snyers, *supra* note 31, p.17.

¹⁶⁹ IMF, *supra* note 21, p.25.

authorities of the Member States.¹⁷⁰ According to the EU Action plan against tax fraud and tax evasion, improvement of cooperation between the tax administrations is the key objective. The main EU legislative acts in force aimed at combatting tax evasion and tax fraud are the following:

- 1) Council Directive 2010/24/EU of 16 March 2010 concerning mutual assistance for the recovery of claims relating to taxes, duties and other measures;
- 2) Council Directive 2011/16/EU of 15th February 2011 on administrative cooperation in the field of taxation (DAC) and all the subsequent amendments thereof;
- 3) Directive 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing (AMLD) and its amendment of 30 May 2018 (AMLD5);
- 4) Council Directive (EU) 2016/1164 of 12 July 2016 laying down rules against tax avoidance practices that directly affect the functioning of the internal market (ATAD);
- 5) 2012/772/EU: Commission Recommendation of 6 December 2012 on aggressive tax planning.

Anti-abuse provisions to prevent tax avoidance and aggressive tax planning are included in other directives such as directives on interest and royalties, mergers and parent subsidiaries. However, these provisions, primarily regulate corporate structures and arrangements, and do not refer to cryptocurrency transactions directly. For this reason, these directives are out of the scope of this research and their provisions will not be further examined here.

2.2.1. Directive against tax avoidance practices

The Directive 2016/1164 on rules against tax avoidance practices (ATAD) refers solely to corporate taxpayers. Its main purpose is to prevent typical trans-border practices and arrangements used by corporate entities to reduce their taxes exploiting the differences in the tax regimes of different jurisdictions. Previously only the jurisdictions of the EU were covered, currently after the amendments of the Directive of 2017 the use of tax benefits of the third countries are included in the scope of ATAD.

¹⁷⁰ Taxation and Customs Union, Role of the EU. Available on: https://ec.europa.eu/taxation_customs/against-tax-fraud-tax-evasion/role-eu_en

Cryptocurrencies are taxed differently in different jurisdictions. Typically, in most countries for taxation purposes they are treated either as property or commodity. The differences in the applicable regimes as well as inconsistencies between the jurisdictions within the same regime may be used to artificially but entirely legally reduce the tax liability. For example – preferential tax regime on cryptocurrency investments that have been held for more than one year in Germany. However, currently such situations are not covered by the Directive. While the Directive regulates hybrid mismatches in case of financial instruments treated differently for tax purposes in different jurisdictions, cryptocurrencies are not covered by the financial instrument definition. According to the Article 2 (9) (j) of the Directive, “financial instruments” are equity, derivatives or such instruments that generate financing or equity return taxable as debt. Cryptocurrencies do not correspond to any of the instruments included in the definition.

2.2.2. Directive on recovery of claims

The Directive 2010/24 on mutual assistance for the recovery of claims regulates a later stage of taxation where the taxable basis is already known to the tax authority and a claim for recovery of such taxes is issued. The scope of the Directive is defined in the Section 2 thereof. Accordingly, the Directive applies to

all taxes and duties of any kind levied by or on behalf of a Member State or its territorial or administrative subdivisions, including the local authorities, or on behalf of the Union.¹⁷¹

Hence it may include taxes on cryptocurrency transactions provided that the respective institutions of a Member State have already issued a recovery order for such taxes. At this stage, recovery claims of taxes on cryptocurrency related activities are in no way treated differently from claims on any other taxes therefore they do not require any specific indication that cryptocurrency transactions related taxes are included in the scope of the Directive. Thus the application of this directive in the field of cryptocurrency operations does not pose any particular problems comparing with taxes in other fields as long as the tax authorities have at their disposal the information of the taxable bases of the taxpayers. To benefit from this Directive, obtaining the information on the cryptocurrency transactions of taxpayers is essential.

¹⁷¹ Council Directive 2010/24/EU of 16 March 2010 concerning mutual assistance for the recovery of claims relating to taxes, duties and other measures.

2.2.3. Directive on administrative cooperation in the field of taxation

The Directive 2011/16 (DAC) regulates the cooperation between the EU Member States regarding taxation. The primary aim of the Directive is to facilitate the tax authorities of the Member States access to the information necessary to carry out fair and proper taxation. According to the point (a) of the Article 8 (3) of DAC the Member States are required to take the necessary measures including legislative and administrative, to ensure that the reporting financial institutions perform sufficient due diligence procedures on their customers and provide the determined reportable information to the tax authorities. The Annex I of the Directive defines and provides further details on the reporting entities and reportable accounts among other items. However, it is not certain whether all the services providers involved in issuing, trading or exchanging cryptocurrencies are included in the scope of this Directive.¹⁷²

The section VIII (3) of the Annex I of DAC defines the reporting financial institutions encompassed by the Directive which are custodial institutions, depository institutions, investment entities and specified insurance companies. The two latter ones due to their particularities of business do not comprise cryptocurrency businesses. However, the nature of business of depository and custodial institutions may include some categories of cryptocurrency service providers.

In regard to depository institutions, the definition in the Annex I of the DAC states that a “depository institution” is an “Entity that accepts deposits in the ordinary course of a banking or similar business”.¹⁷³ The term “deposit” is defined in the Directive on Deposit Guarantee Schemes as a credit balance resulting from funds left in an account or from temporary situations of normal banking transactions and which a credit institution is required to repay according to the terms of contract and which exclude financial instruments.¹⁷⁴ “Depository account” according to the Section VIII C 2 of the Annex I of DAC may include commercial, checking or savings accounts or any account for which a certificate of deposit, investment or

¹⁷² A.Knobel “Reporting taxation: Analysing loopholes in the EU’s automatic exchange of information and how to close them”, Greens/EFA Group, European Parliament (2018), p. 18. Available on: <https://ssrn.com/abstract=3320610>, accessed 01.05.2020.

¹⁷³ Section VIII A 5. of Annex I, Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC, *OJ L 64, 11.3.2011, p. 1–12*.

¹⁷⁴ Point (3) of the Article 2 (1), Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes, *OJ L 173, 12.6.2014, p. 149–178*, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32014L0049>, accessed 10.05.2020.

indebtedness or a similar instrument is issued.¹⁷⁵ Nevertheless, the Directive on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms requires that the credit institutions taking deposits must be authorized for doing so and taking deposits or other repayable funds from the public without such authorization is prohibited.¹⁷⁶ Hence the cryptocurrency service companies will not form part of this category unless they are expressly authorized for this activity. Such authorizations at the current level of cryptocurrency regulation is unlikely and may exist only in exceptional cases.

According to the further explanation in the Section VII of Annex I of DAC, the custodial institutions are the ones that hold financial assets on behalf of their customers and custodial accounts are the ones where any one of more financial assets are held for the benefit of another person. The term “financial assets” is defined as including securities (such as shares of stock, notes, bonds, debentures, or other evidence of indebtedness), commodities, swaps, insurance contract or annuity contract, or any interest therein including futures, forward contracts or options. The question is whether custodian wallets of cryptocurrencies or exchange platforms can be included in the category of the custodial institutions or, in order to correspond to the definitions, whether the cryptocurrencies may be considered “financial assets”.

While some member states such as Austria and Czech Republic have qualified cryptocurrencies as commodities for taxation purposes, the cryptocurrencies do not correspond to commodities definition of the EU Directive on markets in financial instruments¹⁷⁷ and to the general concept of commodities due to the lack of physical representation and intrinsic value.¹⁷⁸ Some cryptocurrencies present the characteristics of securities, however most do not.¹⁷⁹ As a result, the Directive may be applied to

¹⁷⁵ Section VIII C 2 of Annex I, Council Directive 2011/16/EU of 15 February 2011 on administrative cooperation in the field of taxation and repealing Directive 77/799/EEC, *OJ L 64*, 11.3.2011, p. 1–12.

¹⁷⁶ Article 8 and 9, Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, *OJ L 176*, 27.6.2013, p. 338–436, available on: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32013L0036>, accessed 10.05.2020.

¹⁷⁷ Article 2 (6), Commission Delegated Regulation (EU) 2017/565 of 25 April 2016 supplementing Directive 2014/65/EU of the European Parliament and of the Council as regards organisational requirements and operating conditions for investment firms and defined terms for the purposes of that Directive, *OJ L 087* 31.3.2017, p. 1.

¹⁷⁸ Lastra, *supra* note 137, p.30.

¹⁷⁹ *Ibid*, p.30.

cryptocurrency service providers according to the interpretation and qualification of cryptocurrencies in each Member State, however, as there is no explicit qualification of cryptocurrencies, preferably at the EU level, as any of the financial instruments included in the definition of financial assets of DAC, they cannot be strictly considered falling under the scope of the Directive as custodial institutions.

As a result, unless the cryptocurrency issuers, as well as trading and exchange platforms are explicitly included in DAC definition of reporting financial institutions, there will be difficulties and inconsistencies in the application of this Directive in efficient way. Moreover, even if cryptocurrency service providers become explicitly included, additional problem is collecting the information, especially about the cryptocurrency accounts that are not custodian such as offline and software wallets as well as transactions performed on peer-to-peer trading platforms. Nonetheless, cryptocurrency ledger is decentralized, no jurisdiction can require information about all the account holders of certain cryptocurrencies as none has that information.

2.2.4. Anti-money laundering Directive

The first and only tax evasion regulating legislative act currently in force in the EU explicitly including cryptocurrency service providers in its scope, is the Directive 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and particularly its amendment of 30 May 2018 (AMLD 5).

The first EU directive on prevention of the use of the financial system for the purpose of money laundering was adopted in 1991 (AMLD 1).¹⁸⁰ A decade later, in 2001, it was amended in order to bring it in line with the FATF recommendations (AMLD 2).¹⁸¹ Amended once again in 2006 (AMLD 3),¹⁸² the directive was entirely replaced in 2015 (AMLD 4).¹⁸³

¹⁸⁰ Council Directive 91/308/EEC of 10 June 1991 on prevention of the use of the financial system for the purpose of money laundering, *OJ L 166*, 28.6.1991, p. 77–82, available on: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=celex%3A31991L0308>, accessed: 10.05.2020.

¹⁸¹ Section (7) of Recitals, Directive 2001/97/EC of the European Parliament and of the Council of 4 December 2001 amending Council Directive 91/308/EEC on prevention of the use of the financial system for the purpose of money laundering - Commission Declaration, *OJ L 344*, 28.12.2001, p. 76–82, available on: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32001L0097>, accessed 10.05.2020.

¹⁸² Directive 2005/60/EC of the European Parliament and of the Council of 26 October 2005 on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing, *OJ L 309*,

Although auditors, accountants and tax advisors were for the first time included among the obliged institutions under the Directive in the AMLD 2, initially the reason thereof was that services of such professionals might be misused for the purpose of laundering proceeds gained from criminal activities.¹⁸⁴ However, in the AMLD 4, the tax crimes were explicitly included in the definition of “criminal activity” according to the revised FATF Recommendations.¹⁸⁵

The following amendment of the AMLD in 2018 brought cryptocurrency transactions and certain categories of the respective service providers under the scope of the Directive. The term “virtual currencies” is used in the Directive instead of the term “cryptocurrencies” so as to include wider range of products as cryptocurrencies refer to only a part of virtual currencies that are decentralized, exchangeable peer-to-peer, convertible to/from fiat currencies and protected by cryptography.¹⁸⁶ According to the points (g) and (h) of the Article 2 of the Directive, the providers of exchange services between virtual currencies and fiat currencies as well as custodian wallet providers are obliged entities under the Directive.

The obliged entities have two main duties according to AMLD: (1) to perform Due Diligence, including beneficial ownership information, on their customers and prospective customers; and (2) to report any transactions where the obliged entity suspects or has grounds to suspect that they may involve proceeds from illicit activity.

The requirement to perform Due Diligence on cryptocurrency users ends one of the principal concerns in regard to cryptocurrency businesses – the anonymity. Nevertheless, this concern

25.11.2005, p. 15–36, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32005L0060>, accessed 10.05.2020.

¹⁸³ Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC, *OJ L 141*, 5.6.2015, p. 73–117, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849>, accessed 10.05.2020.

¹⁸⁴ Section (16) of Recitals, Directive 2001/97/EC of the European Parliament and of the Council of 4 December 2001 amending Council Directive 91/308/EEC on prevention of the use of the financial system for the purpose of money laundering - Commission Declaration, *OJ L 344*, 28.12.2001, p. 76–82, available on: <https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32001L0097>, accessed 10.05.2020.

¹⁸⁵ Section 11 of Recitals, Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC, *OJ L 141*, 5.6.2015, p. 73–117, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849>, accessed 10.05.2020.

¹⁸⁶ FATF, *supra* note 22, p.5.

is resolved only partly as only few of the cryptocurrency service providers are covered by the ALMD5.

There are different types of service providers that may deal with cryptocurrencies which are not covered by the AMLD. In regard to cryptocurrency exchanges, only the entities that provide exchange services between cryptocurrencies and fiat currencies are included in the scope of the AMLD. Nevertheless, there are other types of exchanges that operate in the market such as pure cryptocurrency exchanges which may be decentralized as well as centralized, and peer-to-peer trading platforms.

It is assumed that the users after performing transactions in virtual currencies, eventually will need to “cash out” the cryptocurrency and exchange it for fiat currency¹⁸⁷ in order to fully benefit from the value received. Hence the EU Commission has opted for targeting the cryptocurrency exchange platforms that provide such link between the world of cryptocurrencies and the “real economy”.¹⁸⁸

While such assumption was valid in the first years of the circulation of cryptocurrencies when the market capitalization was low and the number of users was limited, the situation changed in 2017 after the great increase in price, popularity and total market capitalization of Bitcoin. At the current scale of operations such argument is no longer true. Nowadays there are companies of all types of businesses which accept cryptocurrency payments for their products or services. They include all the necessary provisions for life as well as luxury items, online and offline services, real estate, travel and entertainment, retail stores and many other business sectors.¹⁸⁹ There is no more need to exchange the cryptocurrencies for fiat currencies to obtain the maximum benefit from them.

As pure virtual currency exchanges are not included in the AMLD, they are not required to perform Due Diligence on their customers therefore the users of such exchanges can operate anonymously outside the regulated environment. Such possibility has been admitted by the EU Commission. In its Staff Working Document of 2016 on amendments to the AMLD the Commission states that the most pressing concern is the cryptocurrency exchanges that connect the cryptocurrencies with the real economy indicating that in the future cryptocurrencies may develop to such point where the necessity to exchange them for fiat

¹⁸⁷ IMF, *supra* note 21, p.25.

¹⁸⁸ Houben and Snyers, *supra* note 31, p.61.

¹⁸⁹ All the cryptocurrency merchants and ATMs of the world in one map. Available on: <https://coinmap.org/>

currencies is eliminated due to their wide acceptance and use.¹⁹⁰ The working document was issued in 2016 when cryptocurrencies were less widely used, however the amendments including virtual currency service providers in the AMLD were adopted in 2018 after the bitcoin expansion therefore the EU should have included the pure cryptocurrency exchanges in the scope of the AMLD, at least the centralized exchanges in order to better attain the goal of enabling competent authorities to monitor the use of virtual currencies through obliged entities as stated in the recitals of the AMLD.¹⁹¹ Decentralized cryptocurrency exchanges as well as peer-to-peer trading platforms need not be included as their regulation would be difficult to enforce due to the lack of human control over such exchanges.

In regard to cryptocurrency wallets, only the custodian wallets are covered by the directive leaving the software and hardware wallets outside the scope. While this leaves more options for the virtual currency users to hide assets including taxable income in such wallets anonymously, inclusion of non-custodian wallets in the scope of the directive would be difficult to enforce due to the lack of real human persons behind the apps, software or hardware means.

EU admits that regulation of the entities currently included in the scope of the AMLD will not entirely resolve the issue of anonymity as transactions can also be done by other means circumventing the newly regulated entities.¹⁹²

On the other hand, the duty of reporting suspicious transactions contains various problematic aspects as well.

Firstly, not all the tax evasion cases are covered by the AMLD. The “criminal activity” encompassed by the Directive is defined in the Article 3(4) as “any kind of involvement in the commission” of the serious crimes listed in the following subsections (a) – (f) thereof.¹⁹³ Hence, it is made clear that the Directive deals only with “serious crimes” and does not

¹⁹⁰ EU Commission, Commission Staff Working document, Accompanying the document Proposal for a Directive of the European Parliament and the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (2016), p. 17, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2016:0223:FIN%20>, accessed 12.04.2020.

¹⁹¹ Section (8) of recitals, Directive (EU) 2018/843.

¹⁹² Section (9) of recitals, Directive (EU) 2018/843.

¹⁹³ Article 3(4), Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC, *OJ L 141*, 5.6.2015, p. 73–117, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849>, accessed 10.05.2020.

consider small misdemeanours which may be criminalized in some Member States or constitute administrative offences in others. Point (f) of the Article 3(4) describes the tax crimes that are considered under the Directive. Those are all offences in connection with direct or indirect taxes which are penalized by national legislation of the Member States with maximum of more than one year imprisonment or if the national legislation provides only for minimum threshold for punishments, where the minimum punishment for the tax crime is more than six months. This means that only very serious tax crimes are included in the scope. For example, according to the Latvian Criminal code only tax crimes that have caused losses of large scale to the State or local Governments are penalized with punishments that correspond to the AMLD definition. Although large scale is not defined in the Criminal Code, the State Revenue Service of the Republic of Latvia clarifies that criminal responsibility for tax crimes compatible with AMLD arises when the total amount of taxes evaded exceeds 50 minimum monthly salaries¹⁹⁴ which in total equals to EUR 21,500 according to the data of 2020. The Criminal Code of Spain in this sense is more generous imposing penalty of the required level only starting from the total amount of EUR 120,000 of taxes evaded in a year.¹⁹⁵

Accordingly, only tax crimes of high amounts evaded may become reported leaving most regular tax evaders out of the scope. Taking into account the nature, low cost and easy use of cryptocurrencies in contrast to the high cost and complexity of the use of offshore corporate structures and bank accounts in tax havens, the tax evasion exploiting cryptocurrencies practiced in small amounts by individuals of different income may be substantially more common than the same activities performed by big corporation or wealthy entrepreneurs involving high volumes of capital. For this reason, it can be concluded that the AMLD has only minor impact on tax evasion prevention in general and especially concerning cryptocurrencies.

Another problematic aspect of the suspicious transaction reporting requirement under the AMLD is that the Directive does not provide any definition, characteristics or description of the term “suspicious transaction”.¹⁹⁶ It only indicates that transactions must be reported

¹⁹⁴ Responsibility for breach of tax laws. Available on: <https://www.vid.gov.lv/lv/atbildiba-par-nodoklu-likumu-parkapsanu>

¹⁹⁵ Article 305, Criminal Code of Spain

¹⁹⁶ Financial Intelligence Group, *From suspicion to action - Converting financial intelligence into greater operational impact*, European Union, Agency for Law Enforcement Cooperation (Europol) (2017), p.9.

where the “obliged entity knows, suspects or has reasonable grounds to suspect that funds ... are the proceeds of criminal activity or are related to terrorist financing”.¹⁹⁷ Article 8 of AMLD lists the possible risk factors to be assessed – customers themselves, countries or regions of operation, products/services, transactions and delivery channels. The further assessment, however, is left at the discretion of the service providers/entities obliged to report. The Financial Intelligence Group of EUROPOL on its research about suspicious transaction reports explains that the suspicion is based on the reporting entity’s “feeling of apprehension or mistrust” on the transaction itself or on the persons involved.¹⁹⁸

Nevertheless, some common characteristics and red flags on transactions in traditional financial services market have been developed over time. In its research the Financial Intelligence group has analysed the filed suspicious transaction reports and the reasons for considering the transactions suspicious and filing the reports. The most common factor prompting suspicion is the use of cash which accounts for 5 % of the filed suspicious transaction reports. According to the research, other red flags are economic background of the account user, use of forged documents, transactions with high-risk countries, transactions via correspondent banks, use of money service businesses to remit funds, offshore based companies, use of front persons/companies among other less frequent factors. However, such red flags are not always applicable for the virtual currency transactions. For instance, transactions through correspondent banks or money services could not be used as a suspicious factor as the cryptocurrencies services companies themselves might be in the high-risk zone within this factor. Likewise transfers to/from high-risk or offshore countries cannot always be detected as cryptocurrencies are transferred purely in the cyberspace with no geographic limitations. While not all typical traditional financial market risk signals can be used on cryptocurrencies, their own red flags are not yet fully detected or sufficiently understood hence the suspicious transaction report filing initially may be inadequate.¹⁹⁹

Available on: <https://www.europol.europa.eu/publications-documents/suspicion-to-action-converting-financial-intelligence-greater-operational-impact>, accessed 12.05.2020.

¹⁹⁷ Article 33 (1), Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC, *OJ L 141*, 5.6.2015, p. 73–117, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32015L0849>, accessed 10.05.2020.

¹⁹⁸ Financial Intelligence Group, *supra* note 196, p.41.

¹⁹⁹ Gruber, *supra* note 18, p.191.

Additional problem with the suspicious transaction reports is connected directly with the tax evasion. The tax crimes of certain level of gravity are explicitly included in the scope of the AMLD therefore the reporting entities are compelled to report transactions that may cause the feeling of suspicion of tax evasion. The question is – how to reasonably assess the transactions from the perspective of tax compliance if the origin and destination of the funds may be fully legal and the funds may become illegal only after the end of tax reporting period. The first option is to suspect that all transactions may result in non-compliance with the tax obligations unless the reporting entity has proof that the income has been reported or that the tax has been paid. The second option is to assume that the customers do comply with their tax obligations consequently reporting only the transactions about which the reporting entity has founded lack of confidence on the customer tax compliance.

The first option may generate many needless reports where the customers would have complied with their tax obligations while the reporting entity would not have been informed about it, or the transaction may not be subject to any taxation at all. Such unnecessary overreporting would be counterproductive as too many reports without real grounds for suspicions would unnecessarily overload the workforce of the FIUs which may cause shortcomings in time and efficiency to be dedicated for investigation of serious crimes. However, such reports may give a clearer picture about the tax basis of some high-net-worth taxpayers to the tax authorities.

If the second option is applied, not many transactions would be reported if all the other indicators imply legitimacy and transparency of the transaction disregarding that it may become illegal later at the end of the tax year. Consequently, the tax authorities would not get sufficient information to efficiently deal with tax evasion by use of cryptocurrency transactions. If currently the tax administrations do not receive full information of the taxpayers under their administration through any other legal framework (such as DAC or CRS), the AMLD is the only way to spot the tax crimes therefore this status should be utilized as efficiently as possible.

Taking into account the above analysed insufficiencies of the AMLD in regard to cryptocurrency service providers and the limitation of the tax crimes covered by the AMLD due to the fact that the Directive is primarily aimed at money laundering and counter

terrorism financing instead of tax evasion, it must be concluded that the AMLD framework alone is insufficient to combat tax evasion practiced by the exploitation of cryptocurrencies.

Apart of decentralized cryptocurrency service providers such as peer-to-peer trading platforms and non-custodian wallets, there are other parties and types of income that stay entirely outside the scope of any existing counter-tax evasion legislation in the EU. The examples of such payments are the income received from mining activity for verification of transactions and the income from the system updates (forks) which may be paid by the system automatically hence received unintentionally and impossible to reject. The reason such payments stay outside the EU tax evasion prevention legislation is that the legislation is directed towards intermediaries such as exchanges and wallet service providers, although not all of them can be covered due to enforcement difficulties. Nevertheless, the income from mining activity and system updates are generated by the cryptocurrency system itself. They are not being monitored or reported as they do not go through any exchange or from one wallet to another on peer-to-peer basis. Instead, they simply “appear” in the respective wallets.

Another insufficiency of the EU counter tax evasion legislation is its geographical coverage. The AMLD regulates the cryptocurrency exchanges and custodian wallet service providers based in the EU, however, when consciously hiding assets from the tax authorities, the cryptocurrency users may use an exchange or a wallet in another jurisdiction out of the reach of the EU regulations. Moreover, operating in the Cyberspace, which is not linked to any particular jurisdiction, the use of decentralized service providers will be even more reasonable choice for the tax evaders and less accessible for the EU tax authorities. For this reason, the regulation of cryptocurrency service providers at regional level, although more appropriate than at national level, is still insufficient for achieving efficient results.²⁰⁰

Based on the above analysis, it must be concluded that the tax evasion through cryptocurrencies is not sufficiently regulated in the EU to provide efficient results.

3. Recommendations to improve the regulatory framework

²⁰⁰ Houben and Snyers, *supra* note 31, p.81.

The previous chapter established that the current regulation of cryptocurrencies in the EU does not efficiently deal with the tax evasion problem. The main cause of the lack of efficiency is incompatibility between cryptocurrencies and the existing forms of financial and tax regulations. Hence, innovative policymaking needs to be developed in response to the technological inventions where the traditional methods of regulation are dysfunctional.²⁰¹

Several academics, institutions and organizations have come forward with proposals for future regulation of cryptocurrencies, cryptocurrency service providers and other parties with the purpose to minimize opportunities of the use of cryptocurrencies for illegal reduction of tax liabilities and to discover the tax evasion activities already performed. The proposals are of different degrees of novelty, feasibility and enforceability. The most relevant of them will be analysed below, focusing on the European context.

3.1.1. Bringing currently unregulated cryptocurrency service providers under the scope of the existing legislation.

The most immediate and least creative proposal partly touched in the previous chapter is to include a wider range of cryptocurrency service providers in the regulation of the current legislative acts, namely AMLD and DAC.

Since it is not clear from the text of DAC whether cryptocurrency service providers are included in the scope of the Directive or not, and it can be interpreted differently depending on the national legislation of the Member States, the European parliament in its Report on Financial Crimes of 2019 calls on the Commission to close these loopholes in the Directive.²⁰² The way on how to close the loopholes is further analysed in the Report on EU automatic exchange of information by Andres Knobel. He recommends that all entities providing issuing, trading or exchange of cryptocurrencies be expressly defined among the included entities under the Directive.²⁰³ Such approach is viable as it avoids any misinterpretations and inconsistencies between the Member States and makes it possible to expressly apply the requirements of the Directive regarding automatic exchange of information on taxable income to the cryptocurrency service providers. Exact range of service providers to include in the scope of DAC should include, identically to the AMLD, the custodian wallet providers

²⁰¹ Marian, *supra* note 19, p.46.

²⁰² Section 279, European Parliament resolution of 26 March 2019 on financial crimes, tax evasion and tax avoidance (2018/2121(INI)).

²⁰³ Knobel, *supra* note 17, p.18.

and cryptocurrency exchanges as well as pure cryptocurrency exchanges as far as they are operated in a centralized manner. These entities ought to be in possession of or should be technically able to obtain the information required for the purposes of DAC and such information can be reached through them unlike decentralized services as analysed below.

In regard to the AMLD, IMF in its Discussion Note of 2016²⁰⁴ just like European Commission in its Staff Working Document on amendments to AMLD²⁰⁵ of 2016 have both indicated that initially including the entities that provide exchange between cryptocurrencies and fiat currencies in the AML legislation should be sufficient.

Both institutions as well as European Parliament in the Report on Financial Crimes of 2019,²⁰⁶ have suggested extending the AMLD scope over cryptocurrency wallet providers and payment processors that operate exclusively with cryptocurrencies if the acceptance of cryptocurrencies increased in the society. Nevertheless, efficiency of such extension is highly dubious. While suggesting inclusion of entities operating entirely in cryptocurrency environment, IMF has admitted that in regard to decentralized virtual currency schemes the enforcement of the regulations is complicated due to the lack of specific entity in charge of transaction administration through which to carry out investigative activities as well as freezing and seizing of funds if necessary.²⁰⁷

Another dubious matter in this regard is monitoring the compliance of the included entities with the regulations. Since there is no central counterparty to hold liable for compliance there is neither a way to supervise the subject entities nor to detect a breach of the regulations. The only method remains random encountering with the respective occasions of incompliance.²⁰⁸

Consequently, simple bringing currently unregulated entities under the scope of AMLD would be inefficient. Hence, it is crucial to seek and develop other ways to regulate the decentralized entities.

²⁰⁴ IMF, *supra* note 21, pp.27-28.

²⁰⁵ Section 2.2.3, EU Commission, Commission Staff Working document, Impact Assessment, Accompanying the document Proposal for a Directive of the European Parliament and the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (2016), p. 17, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2016:0223:FIN%20>, accessed 12.04.2020.

²⁰⁶ Section 279, European Parliament resolution of 26 March 2019 on financial crimes, tax evasion and tax avoidance (2018/2121(INI)).

²⁰⁷ IMF, *supra* note 21, p.28.

²⁰⁸ Houben and Snyers, *supra* note 31, p.81.

3.1.2. Centralization of decentralized services

To purportedly resolve the above exposed problem of the lack of a central administrator in decentralized virtual currency schemes in order to render any regulation thereof enforceable, some experts suggest artificial creation of a central party where such is absent. The corporate law scholars Robbie Houben and Alexander Snyers explain that creation and imposition of a “middleman” would allow to “attach the regulation to an identifiable person” which would enhance enforcement thus boosting compliance.²⁰⁹ However although they do not explicitly explain how exactly it could be done from technology and from legal points of view, their reference in this regard to the article describing different degrees of control of the administrators over permissioned blockchains,²¹⁰ suggests that they mean the “middleman” as controller of the cryptocurrencies operating upon permissioned blockchain leaving the entirely decentralized systems uncovered.

A team of financial law experts (Dirk Zetsche, Ross Buckley and Douglas Arner) in their research on liability in distributed ledgers²¹¹ explain in more detail how such artificial introduction of a middleman could be implemented. They propose that the distributed ledgers can be structured as joint ventures where the operations are controlled by one single entity or a small amount of specified entities instead of a cooperation of a multitude of independent entities.²¹² Moreover, the formation of such structures does not necessarily need to be imposed by law. According to the three authors, common sense and economic need would drive the choice towards permissioned blockchains as financial services require organization and the investors require control rights in return for their investment.²¹³ In that case the task of the regulator is to require that these entities be structured in such a way that they have access to sufficient information for the reporting under DAC within the EU and under CRS in the global scale. In this regard R.Houben and A.Snyers suggest bringing the cryptocurrency service providers under the scope of Funds Transfer Regulation (FTR)²¹⁴ to ensure that all the

²⁰⁹ *Ibid*, p.79.

²¹⁰ P.Witzig and V.Salomon, *supra* note 114, p. 6-7.

²¹¹ D.A. Zetsche *et al* “The Distributed Liability of Distributed Ledgers: Legal Risks of Blockchain (August 13, 2017). University of Illinois Law Review, 2017-2018, Forthcoming; University of Luxembourg Law Working Paper No. 007/2017; Center for Business & Corporate Law (CBC) Working Paper 002/2017; University of Hong Kong Faculty of Law Research Paper No. 2017/020; UNSW Law Research Paper No. 17-52; European Banking Institute Working Paper Series 14. Available at: <https://ssrn.com/abstract=3018214>

²¹² *Ibid*, p.43.

²¹³ *Ibid*, p.41.

²¹⁴ Regulation (EU) 2015/847 of the European Parliament and of the Council of 20 May 2015 on information accompanying transfers of funds and repealing Regulation (EC) No 1781/2006, *OJ L* 141, 5.6.2015, p. 1–18.

relevant information about the cryptocurrency transactions be collected.²¹⁵ Article 4 of FTR lists the mandatory information to be collected on the payers and payees which includes the name, address, account number, personal document number and date and place of birth of the payee and the name and account number of the payment receiver missing any of the specified data the transactions are not executed.²¹⁶

Nevertheless, this proposition of introducing a controlling intermediary in the cryptocurrency schemes still covers only permissioned blockchains and does not resolve the problem of truly decentralized cryptocurrencies and their marketplaces. Taking into account that currently the decentralized virtual currencies, such as Bitcoin, Litecoin, Stellar, are the ones that have substantial dominance in the market, it is little likely that the permissioned blockchain schemes could take it over at any time soon, if at all.

A noteworthy proposition was made by the European Banking Authority in its Opinion on Virtual Currencies of 2014. It suggests creating “scheme governance authorities”. A separate authority should be established for each virtual currency scheme. Such authority would be a non-governmental legal entity, accountable to the regulator for the following two aspects:

- 1) technology aspect – it would be responsible for maintaining the integrity of the protocol, transactions ledger and other components of the scheme;
- 2) legal aspect – it would establish and govern the rules for the use of the virtual currency scheme and would be responsible for complying with regulatory requirements of various kinds.²¹⁷

The governing bodies need not be created by the government, as EBA explains, the market participants could establish themselves as the governance authorities as long as they are able to exercise sufficient authority over other participants in the scheme to ensure the compliance.²¹⁸

As to the incompatibility with the decentralized nature of cryptocurrencies, EBA clarifies that such scheme governance body does not need to issue the virtual currency units in a centralized manner and the scheme can still operate through a protocol on a decentralized

²¹⁵ Houben and Snyers, *supra* note 31, p.79.

²¹⁶ Article 4, Regulation (EU) 2015/847 of the European Parliament and of the Council of 20 May 2015 on information accompanying transfers of funds and repealing Regulation (EC) No 1781/2006, *OJ L* 141, 5.6.2015, p. 1–18.

²¹⁷ EBA, *supra* note 16, p.39.

²¹⁸ *Ibid*, p.40.

ledger.²¹⁹ As a motivation for the cryptocurrency schemes to create a governance authority EBA suggests that those virtual currencies that introduce a governing authority could officially be recognized financial services and be permitted to interact with the existing regulated financial services.²²⁰ Such recognition would be important providing these schemes higher level of credibility and regard in the eyes of customers.

While EBA has intended by this proposition to cover also decentralized cryptocurrency schemes, it is difficult to envisage how this proposition could be implemented. Even if a market participant could attain sufficient authority in a particular virtual currency scheme to require the users, miners, nodes and any other party involved in the scheme to comply with certain legal requirements, for the purposes of this thesis, particularly the information collection and reporting requirements, the following two issues are hard to be solved.

The first difficulty is the proposed idea of governing the technological aspects of the virtual currency scheme. The question is how an entity could technically ensure “maintaining the integrity of the central transaction ledger, the protocol, and any other core functional component of the scheme”²²¹ in cases where the protocol is created anonymously and already completed, and there is no access point to do any changes if anything goes wrong with its “integrity”. As this is a question of technological nature, it will not be further analysed here.

The other difficulty, however, concerns directly the compliance – how could the entity ensure the compliance if the nodes can be created simply through a software and likewise the users can access and use the cryptocurrencies simply through a software. On a permissionless blockchain no entity can prevent or control these processes which leaves only relying on its authority over the other participants of the particular virtual currency scheme and expecting that this authority be sufficient to convince the participants to cooperate. It could be argued that the involved parties would be interested to comply with the requirements in order to achieve the common interest of all – maintaining the status of the particular virtual currency scheme as a formal regulated financial service. Nevertheless, in practice it might work for cryptocurrencies with smaller market share, but it is difficult to imagine such controlling authority governing currently the most used cryptocurrency schemes such as Bitcoin, Litecoin or Monero.

²¹⁹ *Ibid*, p.40.

²²⁰ *Ibid*, p.39.

²²¹ *Ibid*, p.39.

3.1.3. Self-registration of users

In the Section (9) of the recitals of the latest amendments of 2018 of the AMLD the European Parliament and the Council, as well as the European Commission in its proposal for the amendments,²²² have admitted that the respective amendments are insufficient to resolve the issue of anonymity pertaining to cryptocurrency transactions as transactions can be done without participation of the regulated entities. Regulation of other service providers under AMLD is problematic due to enforcement difficulties. Hence, the EU has proposed additional means to reduce anonymity. Firstly, it requires that the national FIUs should be able to obtain the information that would allow linking addresses of virtual currencies with the identities of their owners.²²³ The second, it advises to further assess the possibility for the cryptocurrency users to self-declare to the national FIUs.²²⁴

When working on the AMLD amendments, the Commission assessed two possibilities – mandatory and voluntary self-identification providing the identity and the virtual currency wallet information to the authorities. The Commission recognized that the mandatory self-declaration would be more efficient in lifting the anonymity as all the users ought to be known. However, the two major drawbacks to this option are enforcement difficulties and disproportionality. As cryptocurrency transactions can be effectuated through software which does not verify registration of the users, it is not possible to ensure that all the users are actually registered.²²⁵ Additionally, the mandatory registration requirement would lack proportionality²²⁶ which is imperative according to the Article 5 of the Treaty on European Union.²²⁷

²²² Recital (7), European Commission, Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (2016), available on: https://www.ecb.europa.eu/ecb/legal/pdf/en_con_2016_49_draft_law.pdf, accessed 20.05.2020.

²²³ Recital 8, Directive (EU) 2018/843 .

²²⁴ *Ibid.*

²²⁵ Section 6.3.2.1 and 6.3.2.4. EU Commission, Commission Staff Working document, Impact Assessment, Accompanying the document Proposal for a Directive of the European Parliament and the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (2016), p. 17, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2016:0223:FIN%20>, accessed 12.04.2020.

²²⁶ Section 6.3.2.1.3, EU Commission, Commission Staff Working document, Impact Assessment, Accompanying the document Proposal for a Directive of the European Parliament and the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money

While voluntary self-declaration does not eradicate the anonymity, and especially the persons using cryptocurrencies for illicit purposes will typically not self-identify,²²⁸ a partial registration of users will facilitate the identification of the non-registered users. The reason is that the users in most cryptocurrency networks are interconnected by the transactions they perform. The unknown cryptocurrency addresses can be traced by their connections to the known addresses using the public ledger, hence the more addresses are known the less anonymous the whole system is.²²⁹ The American tax expert and academic Omri Marian calls it “cascade effect”.²³⁰ He also states that a certain “critical mass” of users would need to give up their anonymity for the entire system to become sufficiently non-anonymous to deter illicit activities including tax evasion.²³¹

Depending on the number of the registered users, the solution of volunteer self-registration proposed by the EU Commission could at some time become sufficiently efficient at the same time preserving proportionality since the right to privacy would not be completely withheld.²³²

Nevertheless, with respect to unveiling the anonymity of cryptocurrency users in general (meaning also outside of the context of virtual currency exchanges and custodian wallet providers), no immediate measures have been introduced.

Although the recommendation of the Commission to further assess the self-declaration of cryptocurrency users on voluntary basis was included in the final text of the AMLD amendments, the Parliament in the Report on financial crimes, tax evasion and tax avoidance of the following year after the respective AMLD amendments (2019) called on the Commission to assess mandatory self-declaration of the users.²³³ Also the experts R.Houben and A.Snyers express that self-registration on voluntary basis is not a serious approach to

laundering or terrorist financing and amending Directive 2009/101/EC (2016), p. 17, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2016:0223:FIN%20>, accessed 12.04.2020.

²²⁷ Article 5, Treaty on European Union.

²²⁸ *Ibid.*, section 6.3.2.1.2.

²²⁹ Marian, *supra* note 161, p.63.

²³⁰ *Ibid.*

²³¹ *Ibid.*

²³² Section 6.3.2.1.2. EU Commission, Commission Staff Working document, Impact Assessment, Accompanying the document Proposal for a Directive of the European Parliament and the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (2016), p. 17, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2016:0223:FIN%20>, accessed 12.04.2020.

²³³ Section 283, European Parliament resolution of 26 March 2019 on financial crimes, tax evasion and tax avoidance (2018/2121(INI)).

unveiling anonymity in cryptocurrency environment.²³⁴ The specialists suggest that for proportionality reasons the mandatory registration could be subject to materiality threshold. The enforcement however stays challenging.

Nonetheless, no action so far has been taken towards introduction of self-declaration neither on voluntary nor mandatory basis. The options are still being assessed as stated in the Recital (8) of the amendments of 2018 to the AMLD.

3.1.4. Taxing anonymity

While the EU institutions debate over whether the registration of cryptocurrency users to be introduced should be on voluntary or mandatory basis in order to partly or fully lift the anonymity inherent to the use of cryptocurrencies, the American tax expert and academic Omri Marian offers a notable idea of taxing the anonymity. A concept of subjecting anonymity to an additional tax is recommended also by the EU tax expert Piergiorgio Valente²³⁵, however without providing more details on how to structure such system.

Since cryptocurrency transactions can easily be done without going through financial intermediaries such as regulated exchanges, it is difficult to monitor tax compliance of such transactions. They may stay unreported and the income unknown to the tax authorities due to the lack of a reporting intermediary in possession of the transaction information. On the other hand, the regulation of individual users of cryptocurrencies would be excessive and would face enforcement difficulties as seen above when analysing imposition of mandatory registration of users. For this reason, in his proposal O.Marian offers to target another category which often participates in cryptocurrency transactions – the merchants that receive cryptocurrencies in payment for goods or services. Alternatively, the regulation could target the clearing service providers used by the merchants in cryptocurrency transactions.²³⁶

The main reasons for the acquisition of cryptocurrencies is to use them as a medium of exchange in trade for goods or services as well as for private remittances and for investment purposes.²³⁷ Hence, the merchants who accept payments in virtual currencies form a broad category present in cryptocurrency transactions. O.Marian suggests that, just like the foreign

²³⁴ Houben and Snyers, *supra* note 31, p.78.

²³⁵ Valente, *supra* note 17, p.549.

²³⁶ Marian, *supra* note 161, p.64.

²³⁷ EBA, *supra* note 16, p.13.

banks unwilling to comply with the reporting requirements of the Internal Revenue Service (IRS) of the USA become tax withholding agents on behalf of IRS,²³⁸ the merchants could become tax agents for cryptocurrency payments. According to the Section 1471 of the US Internal Revenue Code for tax evasion restriction purposes, unless the foreign financial institution enters into agreement with the US Secretary of the Treasury acquiescing to report the financial information of its US clients including account balances and withdrawals thereof, the financial institutions must withhold 30 % of the withholdable payments (typically regular income, dividends, interest payments, proceeds of sale of property among others).²³⁹ The financial service providers are allowed to maintain the anonymity of their clients if the 30% tax on such payments is withheld by the institutions and remitted to IRS. O.Marian suggests that in a similar way the merchants receiving payments in cryptocurrencies could apply a “special cryptocurrency-transaction tax”²⁴⁰ on such payments unless the payer discloses his/her identity. O.Marian describes such model as “surrogate presumptive collection” where the merchant would act as a surrogate in collecting the presumed tax liability of the purchaser.²⁴¹ It is assumed that once the users voluntarily disclose their identity upon performing a transaction, they would be more inclined to report their cryptocurrency transactions afterwards and comply with the taxation requirements. At the same time, if the anonymity is upheld, the tax would serve as a proxy for the presumed tax incompliance. To incentivize the customers to reveal their anonymity, the tax collected on anonymous payments should be higher than the tax the users would subject to when declaring their income directly to the tax authority.²⁴² This way the taxpayers would have to choose between preserving their anonymity and paying higher tax or revealing their identity and paying a lower tax.

While the EU proposes introduction of a “clearly defined, close to costless and voluntary channel to self-identify”²⁴³ without providing any motivational argument for the cryptocurrency users to do so, the chance of overpaying for the opportunity to stay

²³⁸ Gruber, *supra* note 18, p.201.

²³⁹ Section 1471, Internal Revenue Code, USA, 1986. - 26 U.S.C. § 1471(a) (LEXIS 2013)
<https://www.govinfo.gov/content/pkg/USCODE-2016-title26/pdf/USCODE-2016-title26.pdf>

²⁴⁰ Marian, *supra* note 161, p.65.

²⁴¹ *Ibid*, p.64.

²⁴² *Ibid*, p.65.

²⁴³ Section 6.3.2.1.2, EU Commission, Commission Staff Working document, Impact Assessment, Accompanying the document Proposal for a Directive of the European Parliament and the Council amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and amending Directive 2009/101/EC (2016), p. 17, available on: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=SWD:2016:0223:FIN%20>, accessed 12.04.2020.

anonymous offered by O.Marian could be much more efficient. Such scheme would also ensure real income to the governments in form of tax for anonymous transactions while simple self-declaration would only facilitate the work of tax authorities on tracking down the tax evasion cases which would, contrary to tax collection, consume the funds of investigation institutions before starting to bring any return.

3.1.5. Prohibition of specific aspects of cryptocurrencies

Cryptocurrencies are believed to pose high risk of being used for criminal activities. This has not only been observed by international organizations, for instance, EBA²⁴⁴ and FATF,²⁴⁵ but also confirmed in practice, for example, when the American authorities shut down the dark web marketplace “Silk Road”²⁴⁶ where the transactions over illegal goods such as drugs, arms, stolen identities etc. were performed in cryptocurrencies. The authorities and organizations have indicated many other risks that the use of cryptocurrencies may generate such as use of cryptocurrencies for money laundering and terrorism financing, hacking of wallets, irreversibility of erroneous or fraudulent transactions and, of course, tax evasion, are few of them. For the reason of presenting large number of risks, including risks of high importance, and the current inability and lack of knowledge of efficient regulation and enforcement thereof, several countries have introduced an explicit ban on all the activities involving cryptocurrencies, including mining, trading and using them in any way. Some examples of such countries are Bolivia,²⁴⁷ Algeria,²⁴⁸ Pakistan.²⁴⁹

Scholars and organizations from economically developed countries, however, consider such strict and complete prohibition of cryptocurrencies an excessive and disproportionate measure that would unnecessarily slow down innovation and technological development. Absolute cryptocurrency prohibition is expressly criticized by S.Gruber²⁵⁰, R.Houben and

²⁴⁴ EBA, *supra* note 16, p.22.

²⁴⁵ FATF, *supra* note 22, p.9.

²⁴⁶ *Ibid*, p.11.

²⁴⁷ Banco Central de Bolivia Prohibe el Uso del Bitcoin y Otras 11 Monedas Virtuales [Central Bank of Bolivia Prohibits the Use of Bitcoin and Other 11 Virtual Currencies], Enlaces Bolivia (Apr. 2017), available on: https://www.bcb.gob.bo/webdocs/11_comunicados/04_2017_COMUNICADO_Uso_monedas.pdf

²⁴⁸ Law No. 17-11 of 1917 (Dec. 27, 2017) art. 117, Official Gazette No. 76 of 2017 (Dec. 28, 2017), available on: <https://perma.cc/XP6A-8Q4A>

²⁴⁹ Press Release, State Bank of Pakistan (SBP), Caution Regarding Risks of Virtual Currencies (Apr. 6 2018), available on: <http://www.sbp.org.pk/press/2018/Pr-VC-06-Apr-18.pdf>

²⁵⁰ Gruber, *supra* note 18, p.193.

A.Snyers²⁵¹ as well as IMF²⁵² and EU Commission²⁵³. For instance, IMF has described such prohibition “unduly blunt” recommending instead more targeted approach and commensurate regulation of the risks presented by cryptocurrencies.²⁵⁴

Other countries have adopted slightly less restrictive measures and have prohibited the interaction of cryptocurrencies with the “real world economy” by prohibiting the financial services institutions to deal in any way with cryptocurrencies at the same time leaving the transactions purely in cryptocurrency environment permitted. Such an example is China whose Central Bank has prohibited the financial and payment institutions to trade or in any way use virtual currencies.²⁵⁵

Also EBA its Opinion on Virtual Currencies of 2014 has recommended “shielding” virtual currency schemes from the regulated financial services by discouraging credit institutions, payment institutions, and e-money institutions from involving in any type of activity with virtual currencies including buying, selling or holding them.²⁵⁶ EBA explained that such isolation of virtual currencies from the regulated financial services would mitigate the risks that arise from the interconnection between the two “economies”, including the risk of money laundering and financial crime, but should be used only as an immediate regulatory response for short term until a comprehensive regulatory regime be developed explicitly indicating that there is a chance that such regime may not get developed at all.²⁵⁷ Nevertheless, R.Houben and A.Snyers indicate that general exhaustive bans are not favoured neither on cryptocurrencies nor on their interaction with the formal financial sector.²⁵⁸

Likewise, by choosing to assess the self-declaration of the cryptocurrency users on voluntary basis instead of mandatory basis, according to the text of the AMLD, the EU Commission has made it clear that cryptocurrency economy is being respected and should bear as few restrictions as essentially necessary for preventing the risks associated with cryptocurrencies. One of the reasons for the decision to choose voluntary self-declaration over mandatory is that although by voluntary self-declaration not all the cryptocurrency owners would be revealed, such self-declaration of a certain part of the users might be sufficiently helpful for

²⁵¹ Houben and Snyers, *supra* note 31, p.81.

²⁵² IMF, *supra* note 21, p.35.

²⁵³ Source 19,p.46.

²⁵⁴ IMF, *supra* note 21, p.35.

²⁵⁵ *Ibid*, p.26.

²⁵⁶ EBA, *supra* note 16, p.44.

²⁵⁷ *Ibid*.

²⁵⁸ Houben and Snyers, *supra* note 31, p.81.

the authorities to discover the unknown users. However, the situation is entirely different when the enhanced anonymization tools are concerned. Such additional tools for privacy protection are provided by Monero, Dash, Zcash and other cryptocurrencies, the so-called privacy coins. These tools make the cryptocurrency transactions untraceable and neither voluntary nor mandatory self-declaration of the users does not facilitate the detection of the unregistered users.

R.Houben and A.Snyers argue that such level of anonymity is not truly necessary and leads too far towards criminal activity.²⁵⁹ While declaring against general bans, they recommend well-defined and properly targeted prohibitions of specific aspects of cryptocurrencies. One of such aspects to be expressly prohibited is the additional anonymity enhancing tools aimed at making the detection and verification of the cryptocurrency users impossible as it particularly facilitates the use of cryptocurrencies for illicit purposes.²⁶⁰ The opinion of R.Houben and A.Snyers is supported by the EU Parliament in its Tax evasion report calling on the Commission to assess prohibition of the additional anonymity measures specific to particular cryptocurrencies.²⁶¹

On the other hand, the American legal specialist Gruber (2013) analysing the use of cryptocurrencies for money laundering and tax evasion purposes, is more cautious when mentioning prohibition of anonymity services of specific cryptocurrencies. She suggests that the future regulation targeting these measures might include prohibition, however, she is concerned that such prohibition would thus imply the lack of any legitimate reason for camouflaging one's source of funds, IP address or identity²⁶² while it is not entirely true. Identically to offshore companies and bank accounts, also additional anonymity services on cryptocurrencies may be used for a variety of reasons. Whereas the most common reason, at least in regard to hiding money in offshore tax havens, indeed is tax evasion, many other reasons for doing so exist although less frequent. They may include asset protection from potential creditors, ex-spouses, business partners, competitors, from seizure during unfounded lawsuits, or from extortionists or criminals whatsoever.²⁶³ Many of these reasons may be fully legal. Moreover, when tracing cryptocurrencies the state institutions use only

²⁵⁹ *Ibid*, p.80.

²⁶⁰ *Ibid*.

²⁶¹ Section 283, European Parliament resolution of 26 March 2019 on financial crimes, tax evasion and tax avoidance (2018/2121(INI)).

²⁶² Gruber, *supra* note 18, p.193.

²⁶³ Source 24, p.368.

knowledge and technical abilities either developed on their own or contracted from outside. There are no state orders issued to request confidential information or to access to any systems. Hence, since there is no need for state power at all to trace cryptocurrencies, anyone with sufficient knowledge can do it. For this reason, hiding assets behind additional shield of anonymity in the cryptocurrency environment may frequently have fully legitimate grounds.

A response to this contention against prohibition of enhanced anonymity tools, might be the argument of R.Houben and A.Snyers that the interest of the society and the authorities defending it outweighs the interest of the persons willing to conceal completely their identities when performing cryptocurrency transactions, and clearly formulated and precisely targeted prohibitions of high-risk dangerous characteristics of cryptocurrencies may be a proper way of doing it.²⁶⁴ The same argument is used in defence of the legislation that requires the banks and financial institutions to disclose the financial information about their clients to the tax and crime investigation authorities.²⁶⁵ The difference, however, is that in the case of financial institutions the information is confidential and is not accessible to any third parties therefore no additional anonymity services are needed to protect the information for legitimate purposes from competitors, criminals or any other unwanted persons while cryptocurrency transactions can be traced by anyone hence additional layer of anonymity may be justifiable. The argument that the financial information in cryptocurrency area may be accessed by anyone, may be the reason to admit that the prohibition of the enhanced anonymity services on cryptocurrency transactions does not meet the requirement of proportionality.

In addition to anonymity services of specific cryptocurrencies, S.Gruber invites to include the Tor Internet browser between the aspects of cryptocurrencies whose prohibition should be assessed. Tor browser provides anonymous browsing on internet without leaving any trail or history of the visited websites as well as obfuscating the physical location and IP address of the user. The motive why S.Gruber advises to include this service among the services possibly deserving prohibition is that the use of this browser was a mandatory pre-condition to participate in the illegal online marketplace Silk Road.²⁶⁶ Nevertheless, such proposition is exaggerated as privacy browsing on internet has particularly wide use apart of criminal

²⁶⁴ Houben and Snyers, *supra* note 31, p.81.

²⁶⁵ <https://lvportals.lv/skaidrojumi/293892-kad-un-ko-par-klientu-kontiem-banka-zinos-valsts-ienemumu-dienestam-2018>

²⁶⁶ Gruber, *supra* note 18, p.156.

activities, especially in the current age of surveillance capitalism imposed by Google, Facebook and other ubiquitous Internet giants.²⁶⁷

An additional comment regarding the possible prohibition of anonymity technologies is the enforceability issue that accompanies many aspects of the cryptocurrencies. Even if the use of anonymity services was expressly forbidden and criminal sanctions for using or providing such services were provided by law, currently there is no technology to detect a breach of such occurrence except for random encountering by chance.²⁶⁸

3.1.6. Tax incentives

One of the concerns of the government authorities when intending to regulate cryptocurrency market participants is finding a proper balance between insufficient regulation and overregulation. The consequences of insufficient regulation would be the risks associated with the use of virtual currencies as listed by EBA in its Opinion on Virtual Currencies of 2016 including the possibility of the use of cryptocurrencies for criminal purposes, for hiding assets and evading taxes. Overregulation, on the other hand, would increase the costs of cryptocurrency transaction services due to increased compliance costs, reduce the number of users driving them away from cryptocurrencies towards fintech or conventional banking services, and as a result it would reduce the investment in this market slowing down the innovation and technological development related thereto.

In order to deal with such situation, the American scholar Benjamin Molloy in his study on international tax policy concerning cryptocurrencies recommends providing tax incentives for cryptocurrency operations.²⁶⁹ He indicates that such incentives would motivate the users to continue investing in cryptocurrencies market.²⁷⁰ The tax benefits could also be seen as compensating for the increased compliance costs which have affected the cryptocurrency users of a form of increased service fees.

²⁶⁷ Shoshana Zuboff “It’s not that we’ve failed to rein in Facebook and Google. We’ve not even tried”, available on: <https://www.theguardian.com/commentisfree/2019/jul/02/facebook-google-data-change-our-behaviour-democracy>

²⁶⁸ Houben and Snyers, *supra* note 31, p.81.

²⁶⁹ Molloy, *supra* note 64, p.645.

²⁷⁰ *Ibid.*

B.Molloy claims that the preferential tax treatment on cryptocurrency transactions would have an additional benefit. It would incentivize users to report their transactions.²⁷¹ This however would consequently contribute to making the whole cryptocurrency market less anonymous as more cryptocurrency users being identified makes it easier to identify the unknown users.

4. Attempts of specific EU Countries to restrain the use of cryptocurrencies for tax evasion

As established previously in this thesis, the currently existing counter tax evasion legislation in force in the EU is not sufficient to efficiently prevent tax evasion through the use of cryptocurrencies and in some cases cannot even be extended to cryptocurrency transactions at all. Nevertheless, while the regulation is still slowly developing, the national tax agencies worldwide and in the EU are making efforts individually to curb the tax evasion performed through cryptocurrencies.

Currently two approaches have been occasionally used by the tax authorities. The first approach is requesting information about cryptocurrency users and their performed transactions from the cryptocurrency service providers operating within the respective country. The other approach is requesting the information directly from the users additionally threatening them with possible sanctions for the incompliance with the request of information and with the tax regulations in force. Occasionally both these approaches follow each other first obtaining the information from the service providers and then contacting the persons that have been reported during the first stage.

The above double approach has been used by the Danish tax authority. During 2019 the Danish tax agency had requested information from three major cryptocurrency exchanges in Denmark obtaining data about approximately 20,000 cryptocurrency traders.²⁷² Later in the same year the tax authority sent letters to an unknown number of the identified cryptocurrency users requesting information for the purpose of taxation. The information to

²⁷¹ *Ibid*, p.646.

²⁷² <https://koinly.io/blog/denmark-crypto-tax-letters/>

be provided includes the rates and time of the trades, purpose of the transactions, proof of wallets created, bank statements and a statement of current holdings in cryptocurrencies.²⁷³

The Spanish Ministry of the Treasury in April of 2018 requested information from more than 60 entities which provide services involving cryptocurrencies. The entities included banks, exchanges operating with virtual currencies, entities operating cryptocurrency ATMs, and payment processors.²⁷⁴ As a result of the collected information the tax agency has selected 15,000 persons who had performed transactions in cryptocurrencies during the previous year on whom a close monitoring would be carried out for the purpose of tax compliance and prevention of money laundering.²⁷⁵ The Spanish government, however, is not optimistic about the tax collection expecting just a little income in the state treasury from the cryptocurrency users while focusing more on detecting and curtailing illicit cash flows and money laundering.²⁷⁶

In August of 2019 the UK state revenue service contacted at least three UK based cryptocurrency exchanges including one of the major global exchanges Coinbase to request information about the users and their performed transactions.²⁷⁷

Nevertheless, there are several factors that limit the efficiency of the above described activities.

Firstly, the reach of the national tax authorities is limited to requesting information only from the entities that are registered or operate in the territory of their own country. Considering the global and border-less operation of cryptocurrencies, the tax agencies can obtain only a tiny part of the actual information about the activities of its taxpayers in the environment of cryptocurrencies. Moreover, the data on users and transactions performed through decentralized services such as peer-to-peer trading platforms, offline and hardware wallets cannot be obtained at all unless a sophisticated investigation is carried out. When performing taxable transactions or acquiring cryptocurrencies for investment purposes with prior intent to skip the reporting and tax requirements, the persons are more likely to use foreign or decentralized services. Hence, only the inexperienced or inadvertent users could be caught this way. The cryptocurrency exchange Coinbase described such actions as “fishing

²⁷³ <https://koinly.io/blog/denmark-crypto-tax-letters/>

²⁷⁴ https://elpais.com/economia/2018/04/05/actualidad/1522925585_848445.html

²⁷⁵ https://elpais.com/economia/2018/11/18/actualidad/1542571690_814751.html

²⁷⁶ https://elpais.com/economia/2018/11/18/actualidad/1542571690_814751.html

²⁷⁷ <https://www.coindesk.com/british-tax-authority-seeks-customer-data-from-crypto-exchanges-in-search-of-tax-evaders>

expedition” when it was for the first time approached by a similar request of customer data by the Tax authority of the USA.²⁷⁸

Certain difficulties exist for the affected entities to provide clear and accurate information to the tax authorities. In regard to the time period covered by the requests of information, they usually do not exceed 2 – 3 years. For instance, Danish tax authority in 2019 requested information about the transactions performed between 2016 and 2018.²⁷⁹ As the investigation of the Spanish government is more intended for stopping the use of cryptocurrencies for criminal activities than to detect tax liabilities, the requests concern the situation and holdings at the moment of the request rather than transactions performed and income gained in the previous years.²⁸⁰ Providing information for a longer period would be rather difficult for the service providers, however, when analysing the data only of the last few years, the individuals who entered the cryptocurrency environment early and made the most significant gains would not be affected.²⁸¹ The calculation of exact gains of each person is also as many users have many exchange accounts and wallets between which different amounts in different cryptocurrencies are often transferred.²⁸² Another difficulty for the cryptocurrency users is to calculate exact gains from the cryptocurrency assets upon their disposal as many users make multiple transactions per day or use cryptocurrencies for daily consumption and purchases of small amounts, for example, for food items or retail goods.²⁸³ Such problem is not encountered in the regular investment environment as people do not commonly pay for the goods or products in a store by stock, bonds or commodities.

Another noteworthy effort in curbing tax evasion through cryptocurrencies must be mentioned the international cooperation that has been developed between the tax authorities of five globally significant economies – the UK, Netherlands, USA, Canada and Australia. The block of cooperation of the tax agencies of these countries is called Joint Chiefs of Global Tax Enforcement or J5. Initially formed for the investigation of participation in

²⁷⁸ Austin Elliott, "Collection of Cryptocurrency Customer-Information: Tax Enforcement Mechanism or Invasion of Privacy," Duke Law & Technology Review 16 (2017-2018), p.12.

²⁷⁹ <https://www.coindesk.com/danish-tax-agency-sends-warning-letters-to-suspected-crypto-tax-evaders>

²⁸⁰ https://elpais.com/economia/2018/04/05/actualidad/1522925585_848445.html

²⁸¹ <https://www.coindesk.com/british-tax-authority-seeks-customer-data-from-crypto-exchanges-in-search-of-tax-evaders>

²⁸² <https://www.coindesk.com/british-tax-authority-seeks-customer-data-from-crypto-exchanges-in-search-of-tax-evaders>

²⁸³ Austin Elliott, "Collection of Cryptocurrency Customer-Information: Tax Enforcement Mechanism or Invasion of Privacy," Duke Law & Technology Review 16 (2017-2018), p.7.

international tax evasion crimes by a financial institution from the Central America,²⁸⁴ after the first successful teamwork, J5 have decided to continue working together. One of their common objectives is to track down the individuals engaged tax crimes through cryptocurrencies. The tax authorities of the five countries have brought together investigators, data scientists and cryptocurrency experts to join the leads, trends and methodologies in order to find cyber tax offenders.²⁸⁵ As a result of the cooperation, several significant connections were made between the data points made available by the experts of each country which could not have been made when working individually.²⁸⁶

Although it is little likely that the tax authorities with the currently available technological means could obtain extensive information on cryptocurrency transactions and assets held by the users beyond the information reported due to the reasons mentioned above, the current efforts of the tax authorities are just the beginning. New tools and methods to obtain the access to the currently unavailable data are being continuously sought and developed. More serious actions are expected to be taken against the incompliant individuals whenever discovered.²⁸⁷ For this reason, the users and investors of cryptocurrencies would be well advised to get their affairs with the tax authorities in order and, if necessary, rectify their previous tax declarations as early as possible.²⁸⁸

CONCLUSION

Tax evasion is a serious problem which negatively affects national economies, society and in an indirect manner all the residents of each state. The main previously available tax evasion tools such as corporate structures and bank accounts in tax neutral jurisdictions, due to high costs and legal complexity were the privilege of wealthy people and were recently efficiently restricted by global counter tax evasion regulations. The novel technology of cryptocurrencies, however, provides properties that make the tax evasion efficient, profitable and available to the individuals and corporations of any income level. Pseudo anonymity and

²⁸⁴ <https://www.forbes.com/sites/kellyphillipserb/2020/01/23/tax-chiefs-combine-forces-in-global-tax-evasion-fight/#3e5fe68f7cf6>

²⁸⁵ <https://www.irs.gov/pub/irs-utl/j5-media-release-11-08-19.pdf>

²⁸⁶ <https://www.irs.gov/pub/irs-utl/j5-media-release-11-08-19.pdf>

²⁸⁷ <https://koinly.io/blog/denmark-crypto-tax-letters/>

²⁸⁸ <https://koinly.io/blog/denmark-crypto-tax-letters/>

reduced traceability of cryptocurrency transactions decrease the risk of detectability of the tax evasion while the low cost of cryptocurrency transactions grant high return thereof.

As a non-precedent disruptive technology, cryptocurrencies face multiple regulatory issues. The most relevant challenges are the choice of regulator, choice of any of the existing legal frameworks, geographic extension of the regulation and the selection of the subjects of the regulation.

Cryptocurrencies operate in the Cyberspace which is not connected to any particular jurisdiction but instead includes all the jurisdictions worldwide. The lack of unified taxation regulations in order to respect the tax sovereignty causes inconsistencies in the application of tax laws on cryptocurrencies. As a result of such fragmentation, taxable cryptocurrency transactions may become a 'stateless income' where tax liability cannot be legally imposed. Also the tax evasion prevention regulation over cryptocurrencies may only be efficient when implemented on a global scale, not national or regional.

The tax evasion prevention legislation at global as well as at EU level is based on information sharing between the tax authorities and the financial institutions that hold funds and perform transactions for the customers. Cryptocurrencies operate through a decentralized software which is maintained in a decentralized way through nodes that may be dispersed worldwide. Since there is no central intermediary administrator in the system, there is no one who can perform the identification of the customers and report the data. Lack of the central administrator also impedes the process of the enforcement of the regulations.

The current EU tax evasion prevention regulation is insufficient to efficiently deal with the tax evasion through the use of cryptocurrencies. The Directive on administrative cooperation in the field of taxation does not expressly include cryptocurrency service providers hence it depends on the interpretation of the Member States whether according to their national legislation the definition of 'financial assets' includes cryptocurrencies and whether the definition of 'custodial institutions' covers cryptocurrency exchanges and custodian wallet providers or not. The Anti Money Laundering Directive, on the other hand, does explicitly include entities providing exchange between cryptocurrencies and fiat currencies, and the providers of custodian wallets as obliged to obtain the Due Diligence information on the customers and report suspicious transactions. Nevertheless, the Directive does not cover all the tax evasion cases. It only covers tax evasion of a serious level subject to high threshold of criminal liability in the Member states. Given that cryptocurrencies provide for a simple,

efficient and economical way to hide taxable assets, it is more likely to expect tax evasion of small amounts hence only a small part of the tax evasion cases may be suspected, reported or discovered based on this directive.

Several parties involved in cryptocurrency dealings stay entirely outside the EU tax evasion prevention legislation. Due to enforcement difficulties no regulation covers decentralized cryptocurrency exchanges, peer to peer trading platforms and wallets that are not custodian. Although control and enforcement of regulations is possible over centralized pure cryptocurrency exchanges and at some degree service providers of permissioned cryptocurrencies, such entities are not regulated either. Nevertheless, such entities are the most likely to be used when consciously intending to hide assets from the tax authorities.

There is also no regulation aimed at minimization of tax evasion on the income generated by the cryptocurrency system itself such as income from mining and income from system updates (forks) as currently there are no means to detect such income unless the receiver reports it.

The recommendations for the future regulation made by authorities, international organizations and academics each provides only partial solution of some of the problems caused by the novelty of the cryptocurrencies and their underlying distributed ledger technology.

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