

# **Cryptocurrency Industry: Regulating, Banning or Staying Neutral?**

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## Abstract

Nowadays the cryptocurrency industry is constantly growing and developing. Each year it attracts a big number of investors and businessmen from all over the world. Since the creation of Bitcoin in 2009, more than a thousand new cryptocurrencies with different features were created. Most countries are already working on an effective regulatory mechanism for the cryptocurrency industry. However, the question is whether the regulation will not contradict the essential features of digital currency, such as decentralization, independence and anonymity. This MA thesis analyzes the issue of cryptocurrency regulation as an important stage in their development and evolution. I compare the regulatory frameworks, developed by Canada, the USA, Great Britain and China, which are considered to be the world leaders in the cryptocurrency industry and the ICO sector. In this MA thesis I also try to explain how cryptocurrencies are perceived both by the cryptocurrency community and the regulators in order to give an answer to the question “*What is a cryptocurrency?*”. Finally, this thesis also discusses the issue of cryptocurrency lobbying as an important part of the communication between the state and the third sector.

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## Introduction

Cryptocurrency is a relatively new phenomenon, which attracts companies, start-ups, investors and enthusiasts are due to its transparency, anonymity and decentralized character. Digital currencies are constantly developing and spreading around the world. As SEC (U.S. Securities and Exchange Commission) Chairman Jay Clayton stated: “The cryptocurrency and ICO (Initial Coin Offering) markets have grown rapidly. These markets are local, national and international and include an ever-broadening range of products and participants.”<sup>1</sup> Thus, this newly established industry cannot be ignored by governments and business circles, which might consider it either as a great opportunity for the economics and business, or as a threat.

Recently cryptocurrencies have entered a new stage of development. Different governments are working to create mechanisms of effective regulation of cryptocurrencies, because this industry is constantly increasing and attracting both big numbers of investments and dark market. Thus, there is a big debate concerning the issue of regulation of cryptocurrencies. Some experts say that the idea of cryptocurrencies, which makes it so interesting to the potential investors is its decentralized architecture, which does not involve a third party and is not bound by the laws or regulations. Thus, the regulation contradicts the essential feature of cryptocurrency. “These virtual currencies represent the implementation of a new technology in which decentralized, non-material, online ledgers can validate and record all types of transactions. This technological innovation must be allowed to develop, be rolled out and tested in real environments without material interference or overburdening regulations, especially at the initial stages of its adoption,” –

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<sup>1</sup> Jay Clayton, "Statement On Cryptocurrencies And Initial Coin Offerings", *Securities And Exchange Commission (SEC)*, 2017, <https://www.sec.gov/news/public-statement/statement-clayton-2017-12-11> (accessed May 1, 2018).

says Llew Claasen, executive director of the Bitcoin Foundation, a non-profit advocacy group<sup>2</sup>. Different lobby groups operate within the legislative branches of state power and advocate either for or against the regulation and legislation of cryptocurrencies: some of them represent business and financial elites, others come from the third sector (NGOs, etc.).

It is hard to underestimate the relevance of this research for the cryptocurrency industry: it will make a good contribution to the understanding of cryptocurrencies and its future prospects of development. Considering that there are still a lot of gaps in the academic perception of cryptocurrencies, this project will provide a comparative case study on the issue of cryptocurrency regulation and the possible consequences of such policies for the industry.

This thesis will explore the issue of the regulation of cryptocurrency industry and will explain what actors advocate for or against the regulation of cryptocurrencies and the reasons for such beliefs. The focus will be made on the regulation of cryptocurrencies in Canada, the United Kingdom, the United States of America and China, because the aforementioned states play an important role in the development of the cryptocurrency industry and their actions towards the adoption / non-adoption of cryptocurrencies are often followed by other countries. My research will also analyze the arguments of the two “groups” of actors, based on their attitudes towards the regulation of cryptocurrency industry and explain their positions from the political and economic perspectives. A speculation can be made that governmental bodies and financial institutions, including banking institutions, are acting in favor of the cryptocurrency regulations, because an

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<sup>2</sup> Llew Claasen, Letter On “Combating Money Laundering, Terrorist Financing And Counterfeiting Act Of 2017”, The Bitcoin Foundation, 2017, [https://bitcoinfoundation.org/wp-content/uploads/2017/12/Letter-from-LLew-Claasen-to-Senate-Judiciary-Committee-11-30-2017.pdf?utm\\_source=Bitcoin+Foundation+Members&utm\\_campaign=b74ab60998-EMAIL\\_S1241\\_DONATE\\_MEMBERS\\_2017\\_10\\_26&utm\\_medium=email&utm\\_term=0\\_aebde54849-b74ab60998](https://bitcoinfoundation.org/wp-content/uploads/2017/12/Letter-from-LLew-Claasen-to-Senate-Judiciary-Committee-11-30-2017.pdf?utm_source=Bitcoin+Foundation+Members&utm_campaign=b74ab60998-EMAIL_S1241_DONATE_MEMBERS_2017_10_26&utm_medium=email&utm_term=0_aebde54849-b74ab60998) (accessed May 1, 2018).

extensive regulation will fight the illicit use of cryptocurrencies such as in money laundering, human trafficking, and the drug trade. What is more, it will solve the issues of taxation and will prevent the multi-million cryptocurrency audience from being hacked or robbed. On the contrary, associations of crypto-enthusiasts advocate against the regulation of cryptocurrencies, because such policy contradicts the nature of cryptocurrency, which should operate as an industry, independent from state.

*The major research questions of this thesis will be:*

1. What does the regulation of cryptocurrencies mean for the industry?
2. How are cryptocurrencies perceived nowadays?
3. What are the major features of the regulation of cryptocurrencies in Canada, the United Kingdom, the United States of America and China?
4. What organizations and bodies lobby the issue of the regulation of cryptocurrencies and in which way?

The aim of this thesis is to analyze the main arguments for and against the regulation / legalization of cryptocurrencies and to understand the consequences of such policies for the industry. What is more, my thesis will also explore the main actors, which lobby the regulation of cryptocurrencies within the aforementioned states and present their main ideas, arguments and activities within the field. That would be governmental and non-governmental organizations, associations of the representatives of business circles and financial actors.

### **Methodology**

This MA thesis will be based on various qualitative research methods, such as case study, comparative method, process tracing. According to Schramm, “the essence of a case study, the central tendency among all types of case study, is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with

what result”.<sup>3</sup> This thesis will deal with the decisions taken in the field of cryptocurrencies regulation in Canada, Great Britain, the United States of America and China. I will try to explain why such decisions were taken and how they will influence the further development of the cryptocurrency industry. Case study will give me an opportunity to carry out the in-depth research of the issue of cryptocurrency regulation in aforementioned states as well as to explain what regulatory framework was created by the state authorities. After that I will compare the findings of the case studies with the help of comparative method in order to outline particular features and patterns in each country case. There are different types of case studies: in his research Yin is writing about “exploratory, descriptive and explanatory case studies”<sup>4</sup>.

McDonough and McDonough add interpretive and evaluative case studies to this list, stating that in the latter “the researcher goes further by adding their judgement to the phenomena found in the data.”<sup>5</sup> This thesis will be based on evaluative case study, because after the collection of data I will carry out analysis and evaluation of the received information. Process tracing, as one of the most popular methods of the qualitative research, was also used in this MA thesis. David Colier defines process tracing as “the systematic examination of diagnostic evidence selected and analyzed in light of research questions and hypotheses posed by the investigator”.<sup>6</sup> The situation with the cryptocurrency industry was periodically monitored in each of the research countries in order to get a full picture and answer the research questions.

This MA thesis will also describe and compare the activities of cryptocurrency advocacy groups. Without doubt, there is a big number of cryptocurrency lobby

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<sup>3</sup> Robert K. Yin, *Case Study Research: Design And Methods*, 2nd ed. (London: SAGE publications, n.d.), 12.

<sup>4</sup> Zaidah Zainal, "Case Study As A Research Method", *Jurnal Kemanusiaan* 9 (2007): 1 - 6, [http://psyking.net/htmlobj-3837/case\\_study\\_as\\_a\\_research\\_method.pdf](http://psyking.net/htmlobj-3837/case_study_as_a_research_method.pdf) (accessed 21 May 2018).

<sup>5</sup> Zaidah Zainal, "Case Study As A Research Method", 3.

<sup>6</sup> David Colier, "Understanding Process Tracing", *Political Science And Politics* 40, no. 4 (2011): 823, <http://polisci.berkeley.edu/sites/default/files/people/u3827/Understanding%20Process%20Tracing.pdf>.



organizations around the world, but in my research I will filter them using the following criteria: *country of origin* (only associations, which are operating within the aforementioned states will be selected), *the type of lobbying* (I will be focused only on those actors, which lobby for or against the regulation of cryptocurrencies), *the scope* (only actors, which operate on the national and supranational level will be considered), *language* (the organization should speak/ provide the information on one of the following languages: English, Russian, Ukrainian). This research will also outline the main activities and projects of cryptocurrency and blockchain lobby groups and describe the types of cryptocurrency lobbying – regulatory, educational, etc.

What is more, journalistic articles from the most important cryptocurrency websites, such as Bitcoin.com, The Cointelegraph, CCN (CryptoCoinNews), etc. as well as the important parts of conversations from famous cryptocurrency forums (Bitcointalk, Reddit) will also be used in this thesis as secondary sources. The reason for including data from the cryptocurrency forums into this research is that cryptocurrency and blockchain, on which the latter is built, is a relatively new industry and a lot of the important information as well as the conversations with the cryptocurrency founders and enthusiasts is provided in the forums, such as Bitcointalk and Reddit. There is no particular time frame in my research, because the cryptocurrency industry, as I have already mentioned, is new and rapidly developing.

### **Literature Review**

The topic of cryptocurrency and blockchain is relatively new in the academic circles and remains mainly unexplored, which can be considered both as an advantage (the novelty of the topic and its unlimited scope for research) and limitation, because this phenomenon is in the process of constant development and change, it is highly influenced by the governments and business elites.

Walid Al-Saqaf and Nicolas Seidler made a sociology-backed research of blockchain technology, on which the concept of the cryptocurrency is built<sup>7</sup>. As a result of their research, the authors came up with the conclusion that due to the core principles of blockchain such as decentralization, transparency, equality and accountability, the technology can be used in various spheres, including economics, finance, politics, etc. Blockchain makes a profound impact on the functioning of the society and potentially helps solving important problems, such as the abuse of human rights, human trafficking, money laundering etc. In this case, the authors questioned, whether the cryptocurrency should be considered as an alternative to the traditional money or they are better in solving the other important problems, mentioned above. Walid Al-Saqaf and Nicolas Seidler came to the conclusion that cryptocurrency can be useful in various spheres of application and can be used both as an alternative currency, or as a tool for solving various problems in different fields, including social, economic, political. Without a doubt, the idea of cryptocurrencies goes beyond the finance and banking and can improve the transparency and accountability of other important sectors. What is more, blockchain can be significantly developed and successfully integrated in a huge number of platforms. Thus, it is a matter of time, when the cryptocurrency industry and blockchain technology will occupy the major spheres of the society and transform them for good.

Omri Marian made the in-depth research of the regulation of cryptocurrencies in different countries in the world. The author concludes that cryptocurrencies and blockchain, which is considered to be the underlying technology of cryptocurrencies, have an unlimited scope of application in various spheres in the world. Cryptocurrencies is a

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<sup>7</sup> Walid Al-Saqaf and Nicolas Seidler, "Blockchain Technology For Social Impact: Opportunities And Challenges Ahead", *Journal Journal Of Cyber Policy* 2, no. 3 (2017): 338-354, <https://www.tandfonline.com/doi/ref/10.1080/23738871.2017.1400084?scroll=top> (accessed May 1, 2018).

great human achievement, which can be successfully used not only in finance and banking, but also in politics, education, marketing, tourism, trading, gambling, etc. However, cryptocurrencies will fully open its potential only after the effective framework of their regulation will be elaborated by the states. Omri Marian emphasizes that the regulation is an essential part of the evolution of cryptocurrencies, which will protect the users from fraud as well as cryptocurrencies from various illicit operations. The author also states that the successful regulatory framework will not harm the basic features of the cryptocurrencies, which are decentralization and anonymity. She proposes the development of the “regulatory instruments”, which will control the application of cryptocurrencies in the most popular sectors. Omri Marian proposes an “elective anonymity tax on cryptocurrency transactions” as an illustration of the effective regulatory tool in the cryptocurrency industry<sup>8</sup>.

In her work, Marcella Atzori claims that although scholarly interest in the sphere of cryptocurrency is increasing, “a comprehensive analysis of blockchain applications from a political perspective is severely lacking to date”<sup>9</sup>. Atzori discusses the key points of blockchain-based decentralized governance, which challenges to varying degrees the traditional mechanisms of State authority, citizenship and democracy. Thus, the author comes to the conclusion that blockchain technologies can be successfully applied in the political sector and reduce the number of important problems.

There are many academic works, which work with the notion of blockchain and the scope of its application (Garrick Hileman and Michel Rauchs; Rodney Garratt and Morten Bech, etc.). Blockchain can be considered as a universal tool and the scope of its application

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<sup>8</sup> Omri Marian, "A Conceptual Framework For The Regulation Of Cryptocurrencies", University Of Chicago Law Review Online, Vol. 82, no. 1, 4 (2015): 53-70, [https://chicagounbound.uchicago.edu/uclev\\_online/vol82/iss1/4/](https://chicagounbound.uchicago.edu/uclev_online/vol82/iss1/4/) (accessed May 1, 2018) .

<sup>9</sup> Marcella Atzori, "Blockchain Technology And Decentralized Governance: Is The State Still Necessary?", Journal Of Governance & Regulation 6, no. 1 (2015): 45 - 62, <http://dx.doi.org/10.2139/ssrn.2709713> (accessed May 1, 2018).

is very wide. However, there are many questions that remain rhetorical and need further consideration. For example, should the money of the new generation be “one of many” ways of blockchain application in the real world? Are cryptocurrencies the peak of the successful application of blockchain? What is waiting for the cryptocurrency industry in the future? Those answers do not have a reply in the academic circles yet, but this MA thesis will analyze important crypto-related issues and will make a step forward in understanding the phenomenon of cryptocurrencies and blockchain technology.

In the first part of this MA thesis I will explain the major terms and concepts, used in the cryptocurrency industry. What is more, I will try to understand how are cryptocurrencies perceived in the modern world by researching their major features. I will also analyze the theoretical background of the issue of regulation of cryptocurrency, based on various papers and researches on the topic, such as “A Guide To International Regulation Of Cryptocurrencies” by David Ramm, Jack Shawdon and Philip Stone<sup>10</sup>, “Global Cryptocurrency Benchmarking Study” by Dr Garrick Hileman and Michel Rauchs<sup>11</sup>, etc.

The second half of the research will be focused on the topic of the regulation of cryptocurrencies. I will monitor and compare the official positions and statements of the governments as well as the other governmental institutions of Canada, Great Britain, the USA and China towards the regulation of cryptocurrencies and the policies that they plan to implement or have already implemented (if there are any) in this field. What is more, I will involve the statements of the well-known cryptocurrency analysts, who will explain

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<sup>11</sup> Garrick Hileman and Michel Rauchs, *Global Cryptocurrency Benchmarking Study*, ebook, 1st ed. (London: Centre for Alternative Finance, 2017), [https://www.ibs.cam.ac.uk/fileadmin/user\\_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf](https://www.ibs.cam.ac.uk/fileadmin/user_upload/research/centres/alternative-finance/downloads/2017-global-cryptocurrency-benchmarking-study.pdf) (Accessed 25 Mar. 2018) .

major pros and cons of the cryptocurrency regulation and the consequences of such policies for the industry.

The third part of the MA thesis will focus on the issue of the cryptocurrency lobby by non-governmental organizations. Based on the analytical materials, I will explain why does cryptocurrency need lobbying and what actors nowadays are involved in this process. Besides the governmental and non-governmental associations, which unite cryptocurrency owners, Initial Coin Offering participants and crypto-enthusiasts, nowadays many influential cryptocurrency companies, crypto exchanges and start-ups unite to make their voiced heard on the national or supranational level. Stephen Barclay, British Treasury representative stated that, “The U.K. government is currently negotiating amendments to the anti-money laundering directive”.<sup>12</sup> As described by Maria Lobanova, “It [the anti-money laundering directive] will be adopted as early as the beginning of 2018, and it will certainly affect the sphere of cryptocurrency. A large association representing several companies has a real chance of being heard by the regulatory authorities.”<sup>13</sup> Such cases will be monitored and described in this research as one of the most interesting examples of the cryptocurrency lobbying. Moreover, I will describe the official positions of various organizations towards the regulation of cryptocurrencies, such as CryptoLobby, Bitcoin Foundation.

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<sup>12</sup> UK Parliament, Cryptocurrencies: Regulation (London, 2017), <https://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2017-10-27/110111> (Accessed 25 Mar. 2018).

<sup>13</sup> Maria Lobanova, "Op Ed: Lobbying Efforts Promote The Blockchain Industry Around The World", Bitcoin Magazine, 2018, <https://bitcoinmagazine.com/articles/op-ed-lobbying-efforts-promote-blockchain-industry-around-world>. (Accessed 25 March 2018).

# Chapter 1 Theoretical grounds of the phenomenon of cryptocurrency and the cryptocurrency regulation

## 1.1. **Conceptualization of the major terms of the cryptocurrency industry**

*“Virtual currencies, perhaps most notably Bitcoin, have captured the imagination of some, struck fear among others, and confused the heck out of the rest of us.” – Thomas Carper, US-Senator<sup>14</sup>*

The topic of cryptocurrencies is actively discussed in the business circles, governments and among ordinary people. Cryptocurrency is the product of the technological era and the major innovation of the decade, the unicorn of the last decade. There is no single vision of E-currency: it is perceived both as a threat for the traditional money and at the same time a huge area with endless opportunities.

Each year large number of conferences are organized in order to understand what will happen to the cryptocurrency industry in the future. The idea of a digital currency, which is very simple – transparency and decentralization, is constantly developing and advancing. However, there is still no common understanding of what cryptocurrency is – an alternative to the traditional money, property, securities, shares, right to claim or a new type of investment. For example, as indicated by Dr. Garrick Hileman and Michel Rauchs “Some evidence exists that as of today the main use case for cryptocurrencies is speculation. A 2016 joint report from Coinbase and ARK Invest estimates that 54% of Coinbase users use bitcoin strictly as an investment”<sup>15</sup>

So what is a cryptocurrency? Crash course on the cryptocurrencies explains: “Think of a cryptocurrency as a digital version of fiat currency such as the USD or GBP. Cryptography is used to secure the transaction as well as control the creation of new coins.

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<sup>14</sup> Ameer Rosic, "What Is Cryptocurrency: Everything You Need To Know [Ultimate Guide]", Blockgeeks, 2016, <https://blockgeeks.com/guides/what-is-cryptocurrency/> (accessed 19 May 2018).

<sup>15</sup> Hileman and Rauchs. "Global Cryptocurrency Benchmarking Study", 24.

In layman's terms, it is a digital currency that is mined instead of printed"<sup>16</sup>. However, the above-mentioned explanation is a very simplified vision of cryptocurrencies as an alternative to the traditional (fiat) money.

Cryptocurrency is a digital currency, which is ensured by the cryptography and based on blockchain technology. Blockchain is a distributed ledger, which consists of an endless number of blocks, which store all the data and constantly growing. Cryptocurrency is completely decentralized, which means that there is no third party or central authority, which would control or regulate it. Without doubt hackers are the third party, which can abuse the situation in any moment. Ameer Rosic states: "To realize digital cash you need a payment network with accounts, balances, and transaction"<sup>17</sup>. Instead of the central authority, which controls the system and prevents the issue of double-spending, cryptocurrency involves "peers", i.e. the participants of the system. Each of them has an access to the blocks, where all data about the previous transactions is stored. The control and record of the transactions and balances is carried out without any central authority or server, there is no central bank or fiscal authority (that is why the system is decentralized). The major features of the cryptocurrencies are:

1. Anonymity
2. Decentralization
3. Transparency
4. Peer-to-peer network

There were many attempts to implement the idea of cryptocurrency in the 90s – beginning of 2000s. However, most projects, such as Flooz, Beenz or DigiCash, failed due

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<sup>16</sup>Crash Course On Cryptocurrency For New Investors, 1st ed. (London: Sequant Capital, 2017), 6, [http://www.sequantcapital.com/uploads/file\\_1507568320137\\_Crash%20Course%20on%20Cryptocurrency%20SEQUANT%20CAPITAL%20Oct%202017.pdf](http://www.sequantcapital.com/uploads/file_1507568320137_Crash%20Course%20on%20Cryptocurrency%20SEQUANT%20CAPITAL%20Oct%202017.pdf).

<sup>17</sup> Rosic, "What Is Cryptocurrency: Everything You Need To Know [Ultimate Guide]".

to various economic, financial and technological problems. For example, DigiCash was a company, founded in 1990 in the Netherlands by a famous American computer scientist and cryptographer David Chaum. The company presented innovative electronic payment system, which supported the virtual currency Cyberbucks. Cyberbucks had two important features, which are highly valued in the cryptocurrency industry – anonymity and security<sup>18</sup>. Moreover, according to Coindesk, Cyberbucks was the first international virtual currency, which was not bind by the governmental control and excessive regulations. DigiCash payment system was very smart and included different types of payments – from huge amounts of money to the micropayments. There were many reasons of the collapse of the company in 1998. In 2003 Steve Bowbrick explained some reasons of the failure of DigiCash in his article in The Guardian: “The problem was that merchants hated the anonymity part, governments hated the alternative currency part, banks hated the competition, and internet users could not be persuaded that they even needed micropayments at all”<sup>19</sup>.

The first successful cryptocurrency, called Bitcoin, was developed in 2009 by Satoshi Nakamoto as an “electronic payment system and a solution to the problem of double-spending”<sup>20</sup>. Bitcoin soon became the most famous and used digital currency in the world. The highest price in the history of Bitcoin was \$19,783 in December 2017, compared to \$0.39 in 2010. The year 2017 became the most successful for the cryptocurrency industry: the price and market capitalization of Bitcoin, as well as many other famous cryptocurrencies (Ethereum, Ripple, Litecoin, Dash, etc.) rapidly increased.

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<sup>18</sup> Stan Higgins, *"3 Pre-Bitcoin Virtual Currencies That Bit The Dust"*, Coindesk, 2018, <https://www.coindesk.com/3-pre-bitcoin-virtual-currencies-bit-dust/> (accessed 19 May 2018).

<sup>19</sup> Steve Bowbrick, *"Past Currency"*, The Guardian, 2003, <https://www.theguardian.com/technology/2003/feb/25/comment.comment> (accessed 19 May 2018).

<sup>20</sup> D'Alfonso, Alexander, Peter Langer, and Zintis Vandelis. *"The Future Of Cryptocurrency: An Investor's Comparison Of Bitcoin And Ethereum"*, ebook, 1st ed. (Ontario: Ryerson University, 2016), 5, [https://www.economist.com/sites/default/files/the\\_future\\_of\\_cryptocurrency.pdf](https://www.economist.com/sites/default/files/the_future_of_cryptocurrency.pdf) (accessed 19 May 2018).



The other important cryptocurrency-related term is Initial Coin Offering, or ICO. Initial Coin Offering is a method of raising funds for a blockchain-backed start-up, which has made a decision to issue its own cryptocurrency (token). ICOs are also known as ITO (Initial Token Offering) or ICPO (Initial Public Coin Offering). ICO is a “cryptocurrency factory”, which brings to the market more and more projects with different ideas. The organizers of the World Blockchain Forum, the biggest blockchain event in the world, explain the work of ICOs in a following way:

- “A new company/organization/collective of developers announces that it will be selling the initial coin supply of their new cryptocurrency;
- early supporters of the project pay money (normally in the form of cryptocurrency) in return for these new coins;
- the company then has money to spend on building out the technology to the point of release and beyond;
- the new project launches and if it gains traction, then the value of the new currency rises and investors of the ICO make a profit”.<sup>21</sup>

The ICOs became the victims of their own success. The idea of a fast and easy way to raise millions of dollars for the development of blockchain-based projects and start-ups attracted businessmen and enthusiasts all over the world. Many ICOs, such as IOTA, Ethereum, NEO, Stratis, raised millions of dollars during the private and public token sales, becoming one of the most successful projects in the 21<sup>st</sup> century. However, the ICO industry is also full of scam or fake projects, which disappear immediately after the crowdsale ends. This situation can be compared to the U.S. banking industry in the early

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<sup>21</sup> Dubai - World Blockchain Forum. 2018, <https://dubai.keynote.ae/icos/> (accessed 19 May 2018).

XIX century. EY research concluded that “The total amount of funds raised via ICOs is approaching US\$4 billion, twice the volume of venture capital (VC) investments in blockchain projects. Since late 2017, the ICO volume has been slowing down, and fewer projects are reaching fundraising goals. What is more, the need for a blockchain and token is often unjustified”<sup>22</sup>. The projects sometimes lack a clear vision of the upcoming product and thus they never move from the stage “idea” to the stage “implementation”. There is an impression that blockchain industry stopped developing: there are no innovative ideas introduced and the “cliché phrases” are used in order to attract unexperienced investors.

Altcoins and tokens will be also used in this research. It is important to emphasize that the above-mentioned terms are both the categories of a cryptocurrency. Token is a digital currency, developed by a blockchain-based project. Altcoins, or “Alternative coins” are the alternatives of Bitcoin. Pavel Aziz, Founder of Master the Crypto explained: “The majority of altcoins are a variant (fork) of Bitcoin, built using Bitcoin’s open-sourced, original protocol with changes to its underlying codes, therefore conceiving an entirely new coin with a different set of features”<sup>23</sup>. Some advanced altcoins (Ripple, Ethereum) have created their own blockchain and protocol and thus cannot be considered as the forks of Bitcoin.

Without doubt, cryptocurrency industry consists of a big number of actors (governmental and non-governmental organizations, business circles, companies, exchanges) that create a very specific crypto infrastructure and “build interfaces between public blockchains, traditional finance and various economic sectors”<sup>24</sup>. As suggested by

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<sup>22</sup>EY Research: *Initial Coin Offerings*, 1st ed. (London, 2017), 2, [http://www.ey.com/Publication/vwLUAssets/ey-research-initial-coin-offerings-icos/\\$File/ey-research-initial-coin-offerings-icos.pdf](http://www.ey.com/Publication/vwLUAssets/ey-research-initial-coin-offerings-icos/$File/ey-research-initial-coin-offerings-icos.pdf) (accessed 19 May 2018).

<sup>23</sup> Pavel Aziz, "Differences Between Cryptocurrency Coins And Tokens", Master The Crypto, 2017, <https://masterthecrypto.com/differences-between-cryptocurrency-coins-and-tokens/> (accessed 19 May 2018).

<sup>24</sup> Hileman and Rauchs. "Global Cryptocurrency Benchmarking Study", 21.

Garrick Hileman and Michel Rauchs, the authors of the Global Cryptocurrency Benchmarking Study, the cryptocurrency industry consists of four major sectors – wallets (where the cryptocurrency is stored), exchanges (where everyone can buy, trade and sell cryptocurrencies and tokens), payments companies (which enable the usage of cryptocurrency as a payment method), and mining (“computing large amounts of hashes to find a valid block that gets added to the blockchain”)<sup>25</sup>.

Earlier, mining was considered to be one of the easiest ways to get Bitcoin or some other cryptocurrencies, which use proof of work (PoW). Nowadays, mining is still popular, but incredibly complicated due to the big number of miners working at the same time. It is a serious problem for the miners, because it gets more and more difficult to compute hashes to find a valid block, especially in the Bitcoin blockchain. What is more, it is consuming a lot of electricity, money and time. For example, according to the UK non-governmental organization Power Compare, Bitcoin mining is now consuming more electricity than 159 countries in the world, including the African continent, 12 states of the USA (Alaska, Hawaii, Idaho, Maine, Montana, New Hampshire, New Mexico, North Dakota, Rhode Island, South Dakota, Vermont and Wyoming), Ireland, Iceland, the Baltic countries, the Balkans, etc.<sup>26</sup>

The cryptocurrency industry has greatly expanded since the “birth” of Bitcoin in 2009: according to the Coinmarketcap, nowadays there are 1500 altcoins (Alternative Coins) on the cryptocurrency market<sup>27</sup>. They represent different ideas and technologies and try to solve problems in various industries – IT, business, marketing, sales, finance,

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<sup>25</sup> Hileman and Rauchs. "Global Cryptocurrency Benchmarking Study", 4.

<sup>26</sup> Marc Bevand and Jeff Berkowitz, "Bitcoin Mining Now Consuming More Electricity Than 159 Countries Including Ireland & Most Countries In Africa", Power Compare, 2017, <https://powercompare.co.uk/bitcoin/> (accessed 19 May 2018).

<sup>27</sup> Cryptocurrency Market Capitalizations, Coinmarketcap.Com, 2018, <https://coinmarketcap.com> (accessed 19 May 2018).

banking, gambling, etc. Not all cryptocurrencies have the same function: some of them serve as a method of payment or an alternative to the traditional money, while others are used as an intra-unit of a particular platform or project. The idea of cryptocurrencies is flexible enough to be successfully integrated in any sphere, which makes the cryptocurrency attractive to the businesses, investors and ordinary people, who are interested to become a part of this innovation.

In conclusion, cryptocurrency is the technological phenomenon with a big number of concepts and definitions related to the industry, which were born in a last decade. Bitcoin is considered to be the major cryptocurrency, which was created by Satoshi Nakamoto in 2009. Since that time many altcoins or the alternatives to Bitcoin were created in different parts of the world. I believe that one of the most successful phenomena in the sphere of blockchain is Initial Coin Offering, which is a new way of crowdfunding, used by blockchain-based start-ups. Throughout its short history the ICO sector gathered a big number of investors and raised billions of dollars. However, the “ICO mania” also had the flip side of the coin: it attracted a lot of scammers, or those people who carried out fake projects and disappeared with the raised funds. Furthermore, the ICO sector is often attacked by the hackers. Thus, the cryptocurrency industry is very diverse and has both advantages and disadvantages, which will definitely influence its further development.

### **1.2. *Is Bitcoin a bubble?***

The unexpected success of the cryptocurrency industry and Bitcoin in particular raised the questions about the “cryptocurrency bubble”, which would burst, just like in the case of Tulip mania in Europe in the XVII century. In his book *Extraordinary Popular Delusions and the Madness of Crowds* Charles Mackay wrote: “At first, as in all these gambling mania, confidence was at its height, and everybody gained. The tulip-jobbers

speculated in the rise and fall of the tulip stocks, and made large profits by buying when prices fell, and selling out when they rose. Many individuals grew suddenly rich. Every one imagined that the passion for tulips would last for ever...Rich people no longer bought the flowers to keep them in their gardens, but to sell them again at cent per cent profit. It was seen that somebody must lose fearfully in the end. As this conviction spread, prices fell, and never rose again. Substantial merchants were reduced almost to beggary, and many a representative of a noble line saw the fortunes of his house ruined beyond redemption”<sup>28</sup>. Some scientists and historians think that the “Tulip mania” was a true story, others believe that it was only a myth.

Can the same story happen to Bitcoin? While comparing the “Tulip mania” and the “Bitcoin bubble” entrepreneur and crypto investor Matt Mihaly admits: “Bitcoin itself (meaning the coins not the broader blockchain) has two core broad use cases: as a *transactional currency*, meaning you can buy stuff with it, or accept payment in it for commodities or services, and as a *store of value*”<sup>29</sup>. As the most popular and widely used cryptocurrency in the world, Bitcoin is facing a number of important problems. Among them - high transaction fees, volatility, scalability and many others. Nowadays due to the expansion of the market and emergence of new cryptocurrencies with advanced infrastructure, which can successfully deal with the above-mentioned problems, Bitcoin is considered more as a store of value, rather than transactional currency. Mihaly named 8 properties, which makes a good store of value: scarcity (a store of value should be in a high demand and rare), fungibility (each part of it should have the same value and price as the other part), durability (it should not deteriorate with time), low transfer friction (“it can’t

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<sup>28</sup>Ben Thompson. "Tulips, Myths, And Cryptocurrencies". *Stratechery By Ben Thompson*. 2017. <https://stratechery.com/2017/tulips-myths-and-cryptocurrencies/> (accessed 19 May 2018).

<sup>29</sup> Matt Mihaly, "Comparing Bitcoin To Tulips Is Absurd. Stop It, Matt Mihaly – Medium, 2017, <https://medium.com/@themihaly/comparing-bitcoin-to-tulips-is-absurd-stop-it-9c8b489727fc> (accessed 19 May 2018).

cost too much to move around relative to its value”<sup>30</sup>), cognizability (it should be recognized among the other things and have unique properties), divisibility (it should be divided into voluntary parts and not lose its value), resistance to theft/seizure/loss, stability of value (it should not be volatile)<sup>31</sup>. He concludes, that it is very unreasonable to compare Bitcoin and tulips, because tulip is a terrible store of value, which would inevitably collapse. For more information, please find the Table 1 in the Appendix. Without doubt, there is a lot of speculation around Bitcoin and its price nowadays. Just like in the case of the “Tulip mania”, people consider Bitcoin as a source of the “fast income”. Its price often gets overheated, which is a reason of its high volatility.

In conclusion, it is hard to say whether Bitcoin is a financial bubble, or not. Nowadays there are many famous cryptocurrency enthusiasts and investors debating on this issue. Recently Bloomberg named Bitcoin “the greatest bubble in history”, which will soon burst with unexpected consequences for financial, economic and banking sectors of the world<sup>32</sup>. Such position was supported by the Nobel laureate Robert Shiller, American billionaire Warren Buffett, businessman Jared Dillian, etc. At the same time, this statement is opposed by the co-founder of Glint Ben Davies, Jamie Dimon, the CEO of JPMorgan and many others. The truth is that Bitcoin is a product of technological progress, which has no other parallels in history. Future will show what will happen to Bitcoin and whether it is a financial bubble.

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<sup>30</sup>Mihaly "Comparing Bitcoin To Tulips Is Absurd. Stop It. – Matt Mihaly – Medium".

<sup>31</sup> Mihaly "Comparing Bitcoin To Tulips Is Absurd. Stop It. – Matt Mihaly – Medium".

<sup>32</sup> Janine Wolf, "Bitcoin, The Biggest Bubble In History, Is Popping", *Bloomberg.Com*, 2018, <https://www.bloomberg.com/news/articles/2018-04-09/bitcoin-seen-popping-like-the-greatest-bubbles-by-bofa> (accessed 19 May 2018).

### **1.3. *The regulation of cryptocurrencies: theoretical base and world-wide experience***

The issue of regulation of the cryptocurrency industry is being actively discussed in the crypto-society all around the world — from Japan to the USA. Cryptocurrency and ICO industries are developing very quickly — they have a huge area of application in many industries and spheres. Thus, most governments cannot simply ignore this new technological phenomenon, which is conquering the world.

There is still no common consensus in the world towards what is a cryptocurrency – whether it is a way of payment, a currency, a security or any other type of investment. For example, in July 2017 SEC (Securities and Exchange Commission), in USA, made a statement, which considers cryptocurrencies, as well as most ICOs as security. This decision made a profound impact on the rest of the world: many countries, such as Singapore, has already followed an example of the USA. In contrast, a number of countries (Japan, Venezuela) have officially recognized cryptocurrency, namely Bitcoin, as a legal way of payment, alternative to the “fiat currency”. There is also a third block of the countries, which took a “mild position”: they neither legalized, not banned the use of cryptocurrency and are more concerned about the consequences that the use of digital money might have: money laundering, human trafficking, etc.

Some experts say that one of the features of the cryptocurrency that makes it so attractive to potential investors is its decentralized architecture. Thus, the regulation contradicts the essential feature of cryptocurrency. “This technological innovation must be allowed to develop, be rolled out and tested in real environments without material

interference or overburdening regulations, especially at the initial stages of its adoption, ” - Llew Claasen, executive director of the non-profit advocacy group Bitcoin Foundation<sup>33</sup>

Other crypto-enthusiasts argue that the regulation of cryptocurrencies, which are actively gaining population in the modern world, will help to reduce the level of scam and fraud. Moreover, extensive regulation will also fight the illicit use of cryptocurrencies, such as with money laundering, human trafficking, and the drug trade. “EY (Ernst & Young) research: initial coin offerings (ICOs)” concluded: “Regulators are getting more active if there are signs of lawbreaking in areas including currency control, securities, anti-money laundering, tax, personal data. The U.S. Securities and Exchange Commission has established a special cyber unit that has opened at least two cases on suspicion of ICO fraud.”<sup>34</sup> There is no way the cryptocurrency industry can escape the regulatory policies, imposed by different countries. Their decentralized architecture and anonymity is a “favorable ground” for the development and expansion of different illegal goods and services all around the world. On the other hand, the use of blockchain and cryptocurrency improved various legal spheres, making them more transparent and profitable.

Brad Garlinghouse, the CEO of Ripple, the second-largest cryptocurrency in the world (by market capitalization), has claimed: "There's plenty of examples of these recent ICOs that I don't think are good for the industry because they are not demonstrating or solving a real problem, and you are seeing examples of fraud. And so, I think it's good that you have regulators intervening and stepping in, in countries around the world."<sup>35</sup>

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<sup>33</sup> Mark Niquette, "As Bitcoin Soars, Advocates Seek To Head Off New Restrictions". *Bloomberg.Com*, 2017. <https://www.bloomberg.com/news/articles/2017-12-14/as-bitcoin-soars-advocates-seek-to-head-off-new-restrictions> (accessed 19 May 2018).

<sup>34</sup> EY Research: Initial Coin Offerings, 36.

<sup>35</sup> Nathan Reiff. "Ripple CEO Favors Government Regulation Of Cryptocurrencies". *Investopedia*, 2018. <https://www.investopedia.com/news/ripple-founder-favors-government-regulation-cryptocurrencies/> (accessed 19 May 2018).



Most governments have already started working on the best model for the regulation of cryptocurrencies. A big question is, whether cryptocurrencies, blockchain technologies, and the ICO industry should be regulated as one package, or three separate entities. It is difficult to give a decisive answer to this question unless the world financial leaders and the cryptocurrency society decide what a cryptocurrency is essentially: is it an alternative to fiat currency, securities, and commodities, or a new type of investment. It is impossible to fit all cryptocurrencies within the single legal framework: they have different nature and are interpreted in a different way, varying from country to country. What is more, the cryptocurrency industry in general, as well as most ICOs and cryptocurrency exchanges need to improve the system of security, because there are many cases of attacks nowadays. The more money is pumped into the platform, the more attractive it becomes for the cyber attackers. The most famous cases of the cryptocurrency exchanges attacks are Bithumb (July 2017) – 450 BTC stolen, which is \$ 1 129 050; Mt. Gox (February 2014) – 850 000 BTC stolen, which is \$340 000 000 and many other. Effective regulative measures would facilitate the protection of both the users, who rarely get any compensation and the platforms, which soon get bankrupted and stop working. According to the EY (Ernst & Young) research, among the most popular attacks are:

- “Phishing websites
- Distributed denial of service (DDoS) attack
- Hacking of a website/web application
- Cyber attacks through company employees
- Cyber attacks on the IT infrastructure

- Cyber attacks on investors
- Hacking of exchanges and wallets<sup>36</sup>

So far, there is no understanding of what the governments are legalizing as a cryptocurrency. The truth is that there is no common understanding as some countries, like Germany or Japan have already legalized Bitcoin as a payment method, while, for example, Russia is planning to create its own national cryptocurrency. The future will show us the real nature of cryptocurrencies. However, the big issue is, do we really need to put boundaries on this constantly growing industry? Cryptocurrency, due to its transparency and decentralization, can be successfully applied in any possible industry which seeks innovative approaches. It should be emphasized that the regulation is not necessarily about banning or restricting something. The regulation helps to protect the best interests of the participants and service providers and to represent their interests on the national level. The other possible answer is that the phenomenon of cryptocurrencies is too young to be understood and needs more time to present the entire sphere of applicability and its full potential.

According to the CoinMarketCap, the levels of capitalization as well as the volumes of most cryptocurrencies are constantly growing: the total market capitalization of the cryptocurrency (as of April 2018) is more than \$375 billion and continues to grow<sup>37</sup>. A year ago, in April 2017, this indicator crossed \$25 billion mark, which is 15 times less than now<sup>38</sup>.

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<sup>36</sup> EY Research: Initial Coin Offerings, 31.

<sup>37</sup> Cryptocurrency Market Capitalizations, Coinmarketcap.Com, 2018, <https://coinmarketcap.com> (accessed 19 May 2018).

<sup>38</sup> Cryptocurrency Market Capitalizations.

In conclusion, the cryptocurrencies have entered a new stage of development, which implies the regulation of the industry. The states cannot ignore the industry, which is making big money and attracting a huge number of people and investors from all over the world. The “Golden age” or the “Wild West” of the cryptocurrency, when the industry was not regulated and largely ignored by the states<sup>39</sup>, as Corin Faife called it, has finished: the rapidly growing cryptocurrency community will soon be regulated by all states in the world.

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<sup>39</sup> Corin Faife, "Canada Is Gearing Up To Regulate Cryptocurrency". *Motherboard*, 2018. [https://motherboard.vice.com/en\\_us/article/d358zk/canada-is-gearing-up-to-regulate-cryptocurrency-parliament-hearing](https://motherboard.vice.com/en_us/article/d358zk/canada-is-gearing-up-to-regulate-cryptocurrency-parliament-hearing) (accessed 19 May 2018).

## **Chapter 2: Cryptocurrency regulatory frameworks created in the USA, Canada, Great Britain, and China**

### **2.1. Cryptocurrency regulation in Canada**

Nowadays Canada is considered to be one of the most favorable countries for the development of the cryptocurrency industry and ICOs. The country is open to the innovations, which are bringing Canada to the new qualitative level of development. Hundreds of companies flow to Canada in order to start a blockchain-related project, run an ICO, mine Bitcoin, or integrate the cryptocurrency into their business model. For example, China has always been a world's leader in Bitcoin mining. However, the Chinese authorities are nowadays considering the possibilities of restricting the mining industry by imposing laws and extensive regulations on energy consumption, the number of machines in use, size of the companies, etc. That is why the Chinese mining companies are massively moving to Quebec, an energy-rich region of Canada, which is using hydropower and offering plausible opportunities for the development of the industry. According to the Reuters, Stephane Paquet, a vice president of Montreal International, has named Quebec a province for "green bitcoin"<sup>40</sup>. One of the most famous Chinese companies, which has already started operating its businesses in Quebec, is Bitmain Technologies.

Canadian government is very supportive of the cryptocurrencies and ICOs: its policies are facilitating the development and expansion of the industry in the country. For example, Canada is investing money in the in-depth research of blockchain technology and cryptocurrency industry, creating funds for the support of different blockchain-based projects, organizing conferences and round tables for a better understanding of the concept of cryptocurrency and its perspectives. What is more, Canada is actively integrating

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<sup>40</sup> Brenda Goh, Allison Lampert, and Alexandra Harney. "Chinese Bitcoin Miners Eye Sites In Energy-Rich Canada". *U.S. Reuters*, 2018. <https://www.reuters.com/article/us-canada-bitcoin-china/chinese-bitcoin-miners-eye-sites-in-energy-rich-canada-idUSKBN1F10BU> (accessed 19 May 2018).

blockchain technology into political, economic and social spheres in order to achieve greater transparency and openness. “Project Jasper: A Canadian Experiment with Distributed Ledger Technology for Domestic Interbank Payments Settlement” is exploring the influence of blockchain technology on the transformation of the payments system. The project was launched in 2016 and involved both public and private sectors (Bank of Canada, the biggest Canadian banks, R3 and Payments Canada)<sup>41</sup>. Project Jasper became the first and most successful programme, financed and supported by the government of Canada. After the research phase was officially closed, Project Jasper initiated a number of important partnerships and negotiations that would facilitate the further development of distributed ledger technology (DLT) in Canada<sup>42</sup>. Among them – the partnership with the Monetary Authority of Singapore to enhance the cross-border and cross-currency settlement system. According to the information, indicated on the Bank of Canada official website, “The Bank is a partner of the MIT Media Lab in their Digital Fiat Currency project, as well as a founding member of the Blockchain Research Institute”<sup>43</sup>.

The country also has all chances to become a new hub for the Bitcoin miners. Many Chinese mining companies have already moved to Canada after China has imposed restrictions on the mining operations and plans to ban it in the near future. The more popular mining operations are in the world, the more consuming it becomes in terms of electricity. As an eco-friendly country, Canada has decided to follow a different strategy. Instead of banning the electricity-consuming, but highly profitable industry, it started using renewable energy recourses, such as hydropower, wind, waves, sunlight, etc. Jessica Vomiero

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<sup>41</sup> R3, Bank of Canada, and Payments Canada, “A Canadian Experiment With Distributed Ledger Technology For Domestic Interbank Payments Settlement”, 1st ed. (Payments.ca, 2017), [https://www.payments.ca/sites/default/files/29-Sep-17/jasper\\_report\\_eng.pdf](https://www.payments.ca/sites/default/files/29-Sep-17/jasper_report_eng.pdf) (accessed 19 May 2018).

<sup>42</sup> Fintech Experiments And Projects, *Bankofcanada.ca.*, 2018. <https://www.bankofcanada.ca/research/digital-currencies-and-fintech/fintech-experiments-and-projects/> (accessed 19 May 2018).

<sup>43</sup> Ibid.

claimed: “After the company launched a campaign to attract bitcoin miners in 2017, a Hydro Quebec representative recently claimed to have attracted more than half of the world’s largest players in blockchain”<sup>44</sup>. It is important to note that The Bank of Canada also has plans to develop Canadian national cryptocurrency. During the practical part of the project Jasper, the Bank of Canada, R3 (fintech company) and a number of other big Canadian banks have released CADcoin, the analogue of the future Canadian national cryptocurrency, which was tested in the distributed ledger technology (DLT) based payments system<sup>45</sup>. However, the experiment was not considered by the Bank of Canada for the further development and application in the real-world financial sector.

How are cryptocurrencies perceived in Canada? In August 2017 the Canadian Securities Administrators (“CSA”) issued a notice “Cryptocurrency Offerings”. The Notice was created in order to protect the businesses as well as the ordinary ICO and ITO participants: “Cryptocurrency offerings can provide new opportunities for businesses to raise capital and for investors to access a broader range of investments. However, they can also raise investor protection concerns, due to issues around volatility, transparency, valuation, custody and liquidity, as well as the use of unregulated cryptocurrency exchanges. Also, investors may be harmed by unethical practices or illegal schemes, and may not understand the properties of the investment products that they are purchasing”<sup>46</sup>. The document has a detailed description of the cryptocurrencies, as well as the ICO/ITO industry. It’s major goal – to prevent illegal operations, scam and fraud in the industry and to facilitate the development of the financial technologies (fintech) in accordance with the

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<sup>44</sup> Jessica Vomiero, "Why Canada Is Poised To Become A Prime Destination For Bitcoin Mining", *Global News*, 2018. <https://globalnews.ca/news/3978151/canada-bitcoin-mining-prime-destination/> (accessed 19 May 2018).

<sup>45</sup> Rodney Garratt, and Morten Bech, *Central Bank Cryptocurrencies*, 1st ed. (The Bank of International Settlements (BIS), 2017), [https://www.bis.org/publ/qtrpdf/r\\_qt1709f.pdf](https://www.bis.org/publ/qtrpdf/r_qt1709f.pdf) (accessed 19 May 2018).

<sup>46</sup> Ontario Securities Commission, "CSA Staff Notice 46-307" (Ontario: OSC, 2017), 1, [http://www.osc.gov.on.ca/en/SecuritiesLaw\\_csa\\_20170824\\_cryptocurrency-offerings.html](http://www.osc.gov.on.ca/en/SecuritiesLaw_csa_20170824_cryptocurrency-offerings.html) (accessed 19 May 2018).

Canadian laws. After the in-depth study of the industry the authors concluded that the cryptocurrencies can be treated either as securities, or derivatives. What is more, it includes a special test to identify, whether the token / cryptocurrency is an investment and under which law (Securities laws, Derivatives law, etc.) it should be treated. “In determining whether or not an investment contract exists, businesses should apply the following four-prong test. Namely, does the ICO/ITO involve: an investment of money (1); in a common enterprise (2); with the expectation of profit (3); to come significantly from the efforts of others (4)”<sup>47</sup>.

The notice “Cryptocurrency Offerings” also includes the chapters on cryptocurrency exchanges, initial coin/ token offerings and cryptocurrency investment funds and discusses the issues of registration and accreditation. Thus, the document makes fintech as well as the cryptocurrency industry more fair and transparent. It protects the rights of the investors and outlines the major obligations of the crypto-businesses.

In conclusion, the fact that Canada became one of the most attractive countries for the cryptocurrency business in just a few years does not mean that this industry is underregulated or ignored by the government. On the contrary, the government came up with an effective regulative mechanism, which is advantageous both for the business circles and decision makers. This situation is achieved by the constant cooperation of the business circles and governments, which are initiating the research of the cryptocurrency industry and trying to find consensus between the two sides. Thus, the country is bringing its own vision of the cryptocurrency industry and can be considered as a good example to be followed by the world cryptocurrency community.

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<sup>47</sup>Ontario Securities Commission, "CSA Staff Notice 46-307", 3.

## **2.2. Cryptocurrency regulation in the United States of America**

The situation with the cryptocurrency industry and ICOs in the USA is more complicated than in Canada. The USA is a federal republic, which means that each state has its own approach to the cryptocurrencies and can impose various restrictions or regulations. What is more, the attitude of the US decision-makers towards the cryptocurrency industry is constantly worsening.

The US decision makers are rather hostile towards the cryptocurrency industry: in the beginning of 2018 the State of Idaho (Idaho Finance Department) and the State of Alaska released a warning against investing money in cryptocurrency industry<sup>48</sup>. Similar statements were issued by other US States: Texas State Securities Board issued a report, in which it carried out a four-week research of the 32 different companies, operating in Texas, which involve cryptocurrencies in their work. Some of the companies promised 40% return per month<sup>49</sup>, while others did not even provide physical address (21 from 32 companies<sup>50</sup>). All crypto-related projects and ICOs are operating and recruiting their potential investors through social networks and forums (Facebook, Twitter, LinkedIn, Telegram, Slack, Reddit, Bitcointalk, etc.). Many of them attract attention of the potential investors by the bright and unrealistic slogans, such as “Use your retirement funds to buy Bitcoin!”<sup>51</sup>, “Click here about our no-risk cryptocurrency that enables instant payments to anyone in the world”<sup>52</sup>, etc.

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<sup>48</sup>Idaho Department of Finance, Idaho Finance Department Says To Approach Cryptocurrency Investing With Caution (State of Idaho: Department of Finance, 2017), [http://www.finance.idaho.gov/PR/2018/PressRel\\_Cryptocurrency\\_Advisory.pdf](http://www.finance.idaho.gov/PR/2018/PressRel_Cryptocurrency_Advisory.pdf) (accessed 19 May 2018).

<sup>49</sup> Texas State Securities Board, "Widespread Fraud Found In Cryptocurrency Offerings" (State of Texas, 2017), 7, <https://www.ssb.texas.gov/sites/default/files/CRYPTO%20report%20April%2010%202018.pdf> (accessed 19 May 2018).

<sup>50</sup> Texas State Securities Board, "Widespread Fraud Found In Cryptocurrency Offerings", 2.

<sup>51</sup> "New Ads Policy: Improving Integrity And Security Of Financial Product And Services Ads", Facebook Business, 2018, <https://www.facebook.com/business/news/new-ads-policy-improving-integrity-and-security-of-financial-product-and-services-ads> (accessed 19 May 2018).

<sup>52</sup> Ibid.



Later this year, Kansas Insurance Department (State of Kansas) also released the official statement, in which it warned the citizens against the thoughtless investments in the Initial Coin Offerings or other projects, involving cryptocurrency, coins, tokens or other digital currency. Furthermore, the U.S. Commodity Futures Trading Commission (CFTC) suggested the investors to avoid “anonymous pump-and-dump schemes that can occur in thinly traded or new “alternative” virtual currencies and digital coins or tokens”<sup>53</sup> In February 2018 the biggest US banks JPMorgan, Chase & Co., Bank of America Corp., Capital One, Discover and Citigroup Inc. announced that they will ban the use of their credit cards for any operations with Bitcoin and other cryptocurrency due to their high volatility and the risk of money laundering. This serious restriction was followed by other influential banks in the UK, Australia, Canada and the European Union.

It is important to note that in the beginning of the year 2018 Facebook Inc. banned all advertisements, connected to the cryptocurrency, Initial Coin Offerings and binary options: “Ads must not promote financial products and services that are frequently associated with misleading or deceptive promotional practices, such as binary options, initial coin offerings, or cryptocurrency”<sup>54</sup>. Snapchat is another famous American social network, which has recently banned the advertisements, connected to the Initial Coin Offerings. Nowadays Google, Twitter and LinkedIn were added to the list of the global companies, which prohibited the crypto-related advertisements. Interesting that the CEO of Twitter, Jack Dorsey is a well-known cryptocurrency-supporter and investor. According to The Cointelegraph, he is the CEO of “the point-of-sale software startup Square, which

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<sup>53</sup>The U.S. Commodity Futures Trading Commission (CFTC), Customer Advisory: Beware Virtual Currency Pump-And-Dump Schemes (Commodity Futures Trading Commission's Office of Customer Education and Outreach., 2018).

[https://www.cftc.gov/sites/default/files/idc/groups/public/@customerprotection/documents/file/customeradvisory\\_pumpdump0218.pdf](https://www.cftc.gov/sites/default/files/idc/groups/public/@customerprotection/documents/file/customeradvisory_pumpdump0218.pdf) (accessed 19 May 2018).

<sup>54</sup> "Advertising Policies", Facebook, 2018.

[https://www.facebook.com/policies/ads/prohibited\\_content/prohibited\\_financial\\_products\\_and\\_services](https://www.facebook.com/policies/ads/prohibited_content/prohibited_financial_products_and_services) (accessed 19 May 2018).

would soon integrate a Bitcoin buy/sell functionality”<sup>55</sup>. Thus, very often the official positions of the CEOs of the above-mentioned global networks differ from their actions, which might be imposed by the governments or other influential decision-makers. It is important to note that all of the above-mentioned companies are based in the USA and fall under the restrictions and regulations of the US government.

Cory Kent and Sasa Pudar stated that “the current regulatory system for securities is starting to recognize cryptocurrency as potentially being a *security*, and therefore already being subject to a comprehensive set of requirements related to registration, disclosure, and similar matters”<sup>56</sup>. Internal Revenue Service (IRS), the government agency, which is headquartered in Washington, D.C., has defined virtual cryptocurrency as “a digital representation of value that functions as a medium of exchange, a unit of account, and/or a store of value”<sup>57</sup>. Thus, one of the most influential governmental bodies in the USA came to the conclusion that some virtual currencies, e.g. Bitcoin, potentially might be alternatives to the traditional currency (USD, Euro, GBP, etc.). Such cryptocurrencies are called “convertible” virtual currency and have tax consequences in the USA.<sup>58</sup>

The U.S. Securities and Exchange Commission was the first body, which rapidly reacted to the ICO boom in the summer 2017. In July 2017, one of the most influential agencies in USA declared, having examined DAO tokens from 2016, that ICO tokens may be considered securities and subject to federal securities’ laws. What is more, if the ICO tokens are considered to be securities, they will most probably have to be registered with

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<sup>55</sup> Gareth Jenkinson. "Facebook, Google And Twitter Ban Ads, But Do Their Founders Really Dislike Crypto?". *Cointelegraph.Com*. 2018. <https://cointelegraph.com/news/facebook-google-and-twitter-ban-ads-but-do-their-founders-really-dislike-crypto> (accessed 19 May 2018).

<sup>56</sup> Cory Kent and Sasa Pudar. “Divergent Regulatory Approaches To Cryptocurrency Offerings: Developments In Canada, The United States, And China”, ebook, 1st ed. (Vancouver: McMillan LLP, 2018), 3. [https://mcmillan.ca/Files/202292\\_Divergent-Regulatory-Approaches-To-Cryptocurrency-Offerings-Developments-In-Canada-The-United-States-And-China.pdf](https://mcmillan.ca/Files/202292_Divergent-Regulatory-Approaches-To-Cryptocurrency-Offerings-Developments-In-Canada-The-United-States-And-China.pdf) (accessed 19 May 2018).

<sup>57</sup> Aquil Keith, The Internal Revenue Service (IRS), The Notice On Cryptocurrencies (Washington, DC: IRS, 2018), 1. <https://www.irs.gov/pub/irs-drop/n-14-21.pdf> (accessed 20 May 2018).

<sup>58</sup> Aquil, The Notice On Cryptocurrencies, 1.

the SEC. The SEC regulations were not fully accepted by the crypto-community: Exchange Commission (SEC) chairman Jay Clayton claimed that there were zero Initial Coin Offerings registered with the SEC as of yet and the number of illegal ICOs as well as participants are constantly growing<sup>59</sup>. This was a shock for the whole ICO world. Business circles and crypto-elites realized, that many other countries would soon follow the USA's example, and ICOs would become fully institutionalized and regulated.

SEC has also carried out the DAO (Digital Decentralized Autonomous Organization) investigation, which is now often used by other countries as a case study for the regulation of the cryptocurrency industry and Initial Coin/ Token offerings (ICOs/ ITOs). As it is indicated in the official SEC statement, "The DAO is one example of a Decentralized Autonomous Organization, which is a term used to describe a "virtual" organization embodied in computer code and executed on a distributed ledger or blockchain"<sup>60</sup>. During the token sale, which was held in April – May 2016 many people invested money in DAO by buying the DAO tokens. They expected to have a big profit after the end of the token sale when the price of the token would grow or wanted to sell the DAO tokens on the platforms or exchanges. The token sale was very successful and raised approximately 12 million ETH (cryptocurrency built on the Ethereum blockchain), which amounted to \$150 mln USD. However, after the token sale was finished the DAO system was hacked and around one-third of the assets were stolen. In summer 2017 Securities and Exchange Commission has decided to investigate this case in a greater details in order to understand if the DAO tokens were securities. In order to do this, they applied the US

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<sup>59</sup> Shannon Liao, "US Regulators Are Struggling To Rein In Illegal Cryptocurrency Offerings", The Verge, 2018. <https://www.theverge.com/2018/2/6/16978636/bitcoin-cryptocurrency-virtual-us-regulation-securities-sec-cftc-congress> (accessed 20 May 2018).

<sup>60</sup> Report Of Investigation Pursuant To Section 21(A) Of The Securities Exchange Act Of 1934: The DAO, ebook, 1st ed. (Washington, D.C.: Securities and Exchange Commission, 2017), 1, <https://www.sec.gov/litigation/investreport/34-81207.pdf> (accessed 20 May 2018).

investment contracts test, adopted by the U.S. Supreme Court in *SEC v WJ Howey Co*<sup>61</sup>. Eventually SEC came to the conclusion that DAO tokens were securities. An investment contract is “an investment of money in a common enterprise with a reasonable expectation of profits to be derived from the entrepreneurial or managerial efforts of others”<sup>62</sup>.

The DAO tokens had a form of the investment contract, because token sale participants, who invested money in this project (not necessarily in the form of cash), were reasonably expecting to get a profit from it and were motivated by the White Paper, information from the official company website or other promotional materials. What is more, the token sale participants were expected to be passive investors, who are waiting for the successful “managerial efforts” of the DAO team members. Thus, most tokens, which share the DAO tokens characteristics, fall under the definition of the securities, which are the part of the investment contract. The crypto-world started actively dividing the crypto-tokens into utility tokens and security tokens. Utility tokens, which can also be called app coins or app tokens, have nothing to do with the securities. They are independent units within a particular system or technology and their major function is to provide users with access to a product or service.

Besides the regulation of the crypto-tokens, SEC statement has also affected the cryptocurrency exchanges. SEC has officially noted that the broker, dealer, or exchange has to be registered as a national securities exchange; all other direct or indirect operation with the crypto-tokens, which are considered to be securities should be considered as illegal<sup>63</sup>. In spring 2018 SEC warned the investors against the cryptocurrency exchanges, because nowadays most of them are unregulated and are in a total mess. What is more, the

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<sup>61</sup> Cory Kent, and Sasa Pudar, *Divergent Regulatory Approaches To Cryptocurrency Offerings: Developments In Canada, The United States, And China*, 4.

<sup>62</sup> Report Of Investigation Pursuant To Section 21(A) Of The Securities Exchange Act Of 1934: The DAO, 9.

<sup>63</sup> Report Of Investigation Pursuant To Section 21(A) Of The Securities Exchange Act Of 1934: The DAO, 16.

SEC representatives stated: “The SEC staff has concerns that many online trading platforms appear to investors as SEC-registered and regulated marketplaces when they are not. Many platforms refer to themselves as ‘exchanges,’ which can give the misimpression to investors that they are regulated or meet the regulatory standards of a national securities exchange”<sup>64</sup>.

In conclusion, the United States has created the regulatory framework for the cryptocurrency industry and the ICO sector. However, the set of regulations, introduced by different governmental bodies and financial institutions were opposed by the representatives of the business circles and cryptocurrency community. Thus, even though the USA and Canada used similar regulatory framework, the outcomes were different: while the cryptocurrency industry is actively developing in Canada, the USA is tightening the belts and working on further restriction of the industry.

### **2.3. Cryptocurrency regulation in Great Britain**

Great Britain is currently spending a lot of time and money on the in-depth research of the cryptocurrency industry. Nowadays a lot of research institutes and centres, such as Alan Turing Institute, Open Data Institute and the Digital Catapult are investigating the huge potential of blockchain technologies, cryptocurrency industry and ICO sector<sup>65</sup>. The British are inherently cautious, therefore cryptocurrencies are given deliberate consideration before the actual application and regulation. Moreover, Great Britain has all financial, material and human resources to develop distributed ledger technology and it

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<sup>64</sup> Romain Dillet, "SEC Says Cryptocurrency Exchanges Are An Unregulated Mess". *Techcrunch*, 2018. <https://techcrunch.com/2018/03/07/sec-says-cryptocurrency-exchanges-are-an-unregulated-mess/> (accessed 20 May 2018).

<sup>65</sup> Mark Peplow, *Distributed Ledger Technology: Beyond Block Chain*, ebook, 1st ed. (London: Government Chief Scientific Adviser, 2018), 4, [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/492972/gs-16-1-distributed-ledger-technology.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf) (accessed 20 May 2018).

plans to become the "most attractive home" for global fintech companies<sup>66</sup>. In order to implement this goal the UK has to elaborate "flexible" set of laws and regulations, which would benefit both the decision-makers, who are interested in the prevention of fraud, money laundering, other illicit actions and business circles. During the International Fintech Conference in London in spring 2018 the UK Chancellor Philip Hammond has "announced a new task force including representatives from the Treasury, the Bank of England, and Britain's financial watchdog the Financial Conduct Authority"<sup>67</sup>.

According to the UKcryptocurrency, Bitcoin is nowadays absolutely legal in Great Britain<sup>68</sup>. UKcryptocurrency.com is the website, which is explaining the concepts of various cryptocurrencies (Bitcoin, Ethereum, IOTA, etc.), blockchain technology, the issue of regulation of the industry and Initial Coin Offerings to those, who are interested in this topic or planning to start crypto-related business. The Treasury Committee of the U.K. Parliament has recently launched the investigation of the cryptocurrency industry and Initial Coin Offerings. It aims to estimate the influence of the cryptocurrencies and blockchain technologies on the British financial sector and investors. The Chair of Treasury Committee Nicky Morgan stated that the inquiry "will look at the potential risks that digital currencies could generate for consumers, businesses, and governments, including those relating to volatility, money laundering, and cyber-crime. We will also examine the potential benefits of cryptocurrencies and the technology underpinning them, how they can

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<sup>66</sup> Shoshanna Delventhal, "UK Launches Cryptocurrency Task Force". *Investopedia*, 2018. <https://www.investopedia.com/news/uk-launches-cryptocurrency-task-force/> (accessed 20 May 2018).

<sup>67</sup> Oscar Williams-Grut, "Britain Is Getting A Cryptocurrency Task Force", *Business Insider*, 2018. <http://www.businessinsider.com/uk-chancellor-treasury-cryptocurrency-task-force-2018-3> (accessed 20 May 2018).

<sup>68</sup> "Ukcryptocurrency – United Kingdom Cryptocurrency Guidance", Ukcryptocurrency.Com, 2018. <https://ukcryptocurrency.com> (accessed 20 May 2018).

create innovative opportunities, and to what extent they could disrupt the economy and replace traditional means of payment.”<sup>69</sup>

What is more, similar propositions also come from the other state authorities and decision-makers in the United Kingdom. The House of Commons Treasury Committee of lawmakers has also started in-depth research of the advantages and disadvantages of the cryptocurrencies and the technology of blockchain. After the research of the cryptocurrencies and interviews with the representatives of the industry, the Treasury Committee of lawmakers plans to release a set of recommendations on the regulation of the industry for the UK government.

It is hard to define how the UK authorities perceive cryptocurrency, because this industry is largely underregulated and needs further consideration. However, during the conference in Regent's University London in early February 2018 Mark Carney, the Governor of the Bank of England, claimed that Bitcoin should not be treated as traditional currency, because it does not meet two important criteria of money, outlined by Adam Smith - store of value and medium of exchange: “It [cryptocurrency] has pretty much failed thus far on... the traditional aspects of money. It is not a store of value because it is all over the map. Nobody uses it as a medium of exchange”<sup>70</sup>. What is more, recently the Governor has emphasized that Bitcoin has all characteristics of a bubble, which may end up with a “pretty brutal reckoning”<sup>71</sup>. He assured that Bitcoin and other cryptocurrencies will be regulated in accordance with the British law very soon. After the inquiries made by a

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<sup>69</sup>Nathan Reiff, "UK Government Launches Cryptocurrency Investigation", *Investopedia*, 2018. <https://www.investopedia.com/news/uk-government-preparing-shut-down-cryptocurrencies/> (accessed 20 May 2018).

<sup>70</sup> Helen Partz, "Bank Of England Governor Claims Bitcoin Has 'Failed' As A Currency", *Cointelegraph.Com*, 2018. <https://cointelegraph.com/news/bank-of-england-governor-claims-bitcoin-has-failed-as-a-currency> (accessed 20 May 2018).

<sup>71</sup> Martin Will, "Bank Of England Governor Mark Carney: Bitcoin Is Heading For A 'Pretty Brutal Reckoning'", *Business Insider*, 2018. <http://uk.businessinsider.com/bank-of-england-mark-carney-tears-bitcoin-ethereum-cryptocurrencies-2018-3> (accessed 20 May 2018).

number of influential British bodies, The Financial Conduct Authority (FCA), the UK regulatory organization, which is operating independently from the Government, has launched the investigation of the cryptocurrency industry in cooperation with the Bank of England and Her Majesty's Treasury (HM Treasury). The representative of the UK Parliament and the economic secretary to the Treasury Stephen Barclay commented in late 2017: "The UK government is currently negotiating amendments to the 4th Anti-Money Laundering Directive that will bring virtual currency exchange platforms and custodian wallet providers into Anti-Money Laundering and Counter-Terrorist Financing regulation, which will result in these firms' activities being overseen by national competent authorities for these areas. The government supports the intention behind these amendments"<sup>72</sup>.

In conclusion, the United Kingdom is currently on the stage of research of the cryptocurrency industry and Initial Coin Offerings. Unlike Canada and the USA, which have already elaborated an effective way of the regulation of this industry, the UK is still working on creating the regulatory mechanism and researching the issue in cooperation with different non-governmental organizations and research institutes. However, due to the increasing popularity of the cryptocurrencies and hype around the Initial Coin Offerings, more and more governmental bodies are sending inquiries about the regulation of the industry in the near future. The question is, whether crypto-related sector in the United Kingdom will be regulated in coordination with the European Union, which is also planning to proceed to the regulatory part soon, or after the Brexit officially takes place in March 2019. Most probably, the United Kingdom will follow the example of Canada. It is partly explained by the historical, cultural, linguistic and economic connections between the countries. However, the future will show whether the regulations will be well perceived

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<sup>72</sup> Evans, "Cryptocurrencies Regulation: Written Question - 110111".



both by the representatives of the business elites and cryptocurrency community in the USA.

#### **2.4. Cryptocurrency regulation in China**

The People's Republic of China has an aggressive approach towards the regulation of the cryptocurrency industry and the ICOs.

The country has a complicated history of relations with the cryptocurrency industry and ICOs. It is important to note that Bitcoin was successfully embraced by the representatives of the Chinese business circles since its creation in 2009. As Greg Pilarowski and Lu Yue emphasize, "In November 2016, China became the largest Bitcoin market in the world due in part to the country's then permissive policies with respect to cryptocurrencies"<sup>73</sup>. However, the Chinese decision makers have always been concerned that the cryptocurrencies with their decentralized architecture will be involved in illegal schemes, dark market, money laundering, human trafficking, etc. In 2013 the demand for Bitcoin was growing in China: more and more platforms and companies started accepting Bitcoin as a method of payment. Among them – Baidu, one of the most famous Chinese companies, specializing in e-commerce. The Chinese government was disturbed by the fact that "Bitcoin provided an ingenious means of bypassing the Chinese government's strict capital control rules"<sup>74</sup>. The first restriction of the cryptocurrency industry was imposed by the Chinese authorities in 2013 with the Notice to Prevent the Risk of Bitcoin, initiated by the People's Bank of China and some other governmental bodies. With this Notice China has restricted the banks and other financial organizations to use Bitcoin as a currency. It is

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<sup>73</sup> Greg Pilarowski, and Lu Yue, "China Bans Initial Coin Offerings And Cryptocurrency Trading Platforms", China Regulation Watch 3 (2017), <http://www.pillarlegalpc.com/en/news/wp-content/uploads/2017/09/PL-China-Regulation-Watch-Cryptocurrency-2017-09-22.pdf> (accessed 20 May 2018).

<sup>74</sup> Ankit Panda, "People's Bank Of China Issues A Regulatory Notice On Bitcoin", The Diplomat, 2018. <https://thediplomat.com/2013/12/peoples-bank-of-china-issues-a-regulatory-notice-on-bitcoin/> (accessed 20 May 2018).

important to note that the Notice to Prevent the Risk of Bitcoin did not ban the private use of Bitcoin by the ordinary citizens and investors.

The second wave of excessive Bitcoin regulations by the Chinese authorities took place in 2017 due to the increased popularity of the Initial Coin Offerings. China was the “ICO paradise” in the beginning of 2017: many startups and projects raised millions of dollars for the further development of their product. On 4 September 2017 the People’s Bank of China in coordination with a number of important governmental organizations, such as Ministry of Industry and Information Technology, China Banking Regulatory Commission, China Insurance Regulatory Commission, etc. have officially released the Announcement to Prevent the Risk of Initial Coin Offerings. The document prohibits the creation and dissemination of any new cryptocurrency through the crowdfunding, or Initial Coin Offerings. Moreover, all further operations and platforms, which involve cryptocurrency (trading platforms, cryptocurrency exchanges), were banned in any form<sup>75</sup>. Later in September Robert Hackett made the in-depth research of the Announcement in order to understand the logic of the ICO ban in China. He has published 7 reasons why the Chinese decision-makers have decided to stop the “ICO-mania” in China<sup>76</sup>. First of all, the industry was “out of control”: the ICOs made around \$ 1 billion in the first half of the year. Furthermore, the number of the blockchain-based startups, which were interested in the ICO as an easy way of raising money, was increasing. Secondly, there were many scam projects, which initially attracted a big number of investors by the marketing campaigns, but disappeared after the crowdfunding was successfully finished. Unexperienced investors were often hooked by bright slogans and unrealistic plans, but could not claim their money back, because the ICO industry was underregulated. Thirdly, the Chinese investors do not

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<sup>75</sup> Pilarowski and Yue, China Bans Initial Coin Offerings And Cryptocurrency Trading Platforms.

<sup>76</sup> Robert Hackett, "7 Reasons Why China Banned Icos", *Fortune*, 2017.

<http://fortune.com/2017/09/05/china-bitcoin-blockchain-ico-ban/> (accessed 20 May 2018).

feel safe enough in the uncontrolled environment. The fourth reason is that China was considered to be one of the most popular countries for the conduction of the token sale. As the author emphasizes, “China-based ICOs raised about \$400 million through 65 offerings with more than 100,000 investors, according to a report from the National Internet Finance Association of China”<sup>77</sup>. The Chinese authorities had to stop this uncontrolled flow of investments and projects. Fifthly, Hackett assumes that most probably China plans to create its own cryptocurrency and wants to reach the monopoly in the Chinese ICO sector. The sixth reason described by the author is that all successful Chinese companies and projects are supported by the state, which controls them and gives its protectorate. Thus, Hackett claims that the ICO industry is “threatening the traditional players and undermining their authority”<sup>78</sup>. Finally, Robert Hackett states that the strict Chinese measures were probably initiated to stop the crypto mania, which has reached its pick in China in August 2017. The restrictions may have temporary character and the ICO industry may be legalized as soon as the Chinese authorities elaborate effective regulations.

In the beginning of 2018 the Chinese decision makers have also revealed its intention to restrict the mining operations. China is considered to be the world leader in Bitcoin mining, which consumes up to two thirds of the world processing power<sup>79</sup>. As South China Morning Post described, the Announcement made by the Chinese authorities was a death sentence for the cryptocurrency industry in China and symbolized the beginning of the cold war between the country and the cryptocurrency community<sup>80</sup>. Thus,

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<sup>77</sup> Hackett, "7 Reasons Why China Banned Icos".

<sup>78</sup> Hackett, "7 Reasons Why China Banned Icos".

<sup>79</sup> Zheping, Huang, "This Could Be The Beginning Of The End Of China'S Dominance In Bitcoin Mining", Quartz, 2018. <https://qz.com/1172632/chinas-dominance-in-bitcoin-mining-under-threat-as-regulators-hit-where-it-hurts-electricity/> (accessed 20 May 2018).

<sup>80</sup> Sidney Leng, "Why Has China Declared War On Bitcoin?", South China Morning Post, 2018. [http://www.scmp.com/news/china/economy/article/2111456/why-has-china-declared-war-bitcoin-and-digital-currencies?utm\\_medium=partner&utm\\_campaign=contentexchange&utm\\_source=thetstreet](http://www.scmp.com/news/china/economy/article/2111456/why-has-china-declared-war-bitcoin-and-digital-currencies?utm_medium=partner&utm_campaign=contentexchange&utm_source=thetstreet) (accessed 20 May 2018).

the regulations will soon affect the work of many global cryptocurrency exchanges and trading platforms headquartered in China. Among them - Huobi, BTCCChina, OKCoin, ViaBTC and many others.

In conclusion, China has a completely different approach to the regulation of the cryptocurrencies compared to the United Kingdom, the United States and Canada. The aggressive approach can be explained by the Chinese mentality: the country has been traditionally hostile to new technologies, which are not of domestic origin. In my opinion, the whole concept of the ICOs and cryptocurrencies contradict the Chinese authoritarian system, which keeps all spheres – social, economic, political, financial, etc. in the iron fist.

## **Chapter 3: The issue of lobbying the cryptocurrency industry in Canada, the USA, the People's Republic of China and the United Kingdom**

### **3.1. *CryptoLobby***

CryptoLobby is American organization, DBA (doing business as) of MonaLisa Wallace, which is promoting the use of blockchain technology and cryptocurrency in the sphere of human rights. It is oriented on education of the journalists, policymakers and representatives of the public sphere about the benefits of the cryptocurrency. The motto of the organization – “Promoting the public benefit of cryptocurrencies, blockchain technology & digital human rights”<sup>81</sup>.

As outlined by the CryptoLobby organization, “Because Wall Street and the banking industry can be utterly shut out by transactions involving bitcoin and other cryptocurrencies, billions of dollars have been invested to lobby governments to limit people’s access through onerous legislation and even criminalization of cryptocurrencies”<sup>82</sup>. Banking and financial sectors have a big number of lobbyists in the legislative and executive branches of the power in the USA, Great Britain, Canada, the European Union and other developed states. Billions of dollars are spent on lobbying the particular laws and regulations, which favor the state-controlled financial sector. Cryptocurrency industry does not have such powerful advocacy and is fully decentralized, which makes it independent from the state.

Furthermore, CryptoLobby has its own understanding of cryptocurrency, which goes beyond the traditional definitions and technical characteristics. According to the leaders of the organization, cryptocurrency is “a form of speech between the human

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<sup>81</sup> CryptoLobby, 2018. <https://cryptolobby.com> (accessed 20 May 2018).

<sup>82</sup> “About The Cryptolobby”, Cryptolobby, 2018. <https://cryptolobby.com/page/> (accessed 20 May 2018).

beings”<sup>83</sup> and “an expression of the basic human right to communicate with one another”<sup>84</sup>.

The organization claims that such financial giants as PayPal, Bank of America, MasterCard, Visa and Western Union are interested in restricting the use of cryptocurrency, which is threatening their monopoly on the financial market<sup>85</sup>. In other words, cryptocurrencies change the “rules of the game” and the perception of the monetary system.

It is important to note that CryptoLobby does not act against the regulation of the cryptocurrency industry and Initial Coin Offerings: “Regulations must balance the interests of speculators and monetary institutions vs. people who wish to use cryptocurrency for efficient, honest, legal transactions that do not involve or pay corporations or nation-states”<sup>86</sup>. The organization argues that there are “good laws”, which favor the development of the cryptocurrencies and “bad laws” designed to restrict the access to the cryptocurrencies. CryptoLobby claims that the modern laws and regulations do not make a distinction between the speculators and ordinary users. “Good” laws should not restrict ordinary citizens from operations which involve the buying and selling of cryptocurrency, which is their natural right. The representatives of the organization bring the example of “De minimis” exemption tax laws in the USA as “good laws”, which are narrow enough to protect the ordinary citizens and at the same time to outlaw the speculators<sup>87</sup>.

Currently CryptoLobby is running two projects: “Constitutional Law Defense of Net Neutrality” and “Cryptocurrency is Free Speech”<sup>88</sup>. The first project is aiming to prove that the Internet is a public utility, prepaid by the taxpayers, and the state authorities do not have a right to restrict access to it: “The real problem here is that the FCC [the Federal

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<sup>83</sup> Ibid.

<sup>84</sup> Ibid.

<sup>85</sup> Ibid.

<sup>86</sup> CryptoLobby, 2018. <https://cryptolobby.com> (accessed 20 May 2018).

<sup>87</sup> “About The Cryptolobby”.

<sup>88</sup> “Projects Of The Cryptolobby”, Cryptolobby, 2018. <https://cryptolobby.com/home/projects/> (accessed 20 May 2018).

Communications Commission] is both recognizing its mandate to protect the open nature of the Internet, as part of its fundamental mission, yet failing to take the regulatory steps to fulfill this duty. Namely, the FCC must overcome the lobbying strategy invoking fear, uncertainty and doubt to exposing this new and vital technology to highly developed statutory public utility regulations, admittedly some of which are outdated and irrelevant but nevertheless are changeable, in the interest of protecting unfettered innovation”<sup>89</sup>. The second project is currency on the stage of development and does not have any detailed description on the website. The major idea of the project is that cryptocurrency as a way of the communication between people should be protected as a basic human right to free speech. It is important to note that the organization does not have pages in social networks (Facebook, Twitter, LinkedIn, Telegram, etc.) or photos on its official website.

In conclusion, CryptoLobby is the organization, promoting “good laws” to regulate the cryptocurrency industry. In addition, CryptoLobby has its own perception of the cryptocurrencies as a type of communication between people. Thus, cryptocurrencies should be protected as a right for a free speech. However, the organization is neither active in the social networks, nor has photographs or articles describing its activities on its official website. Thus, it is difficult to say whether the organization is still active and working on its demands.

### **3.2. The Bitcoin Foundation**

The Bitcoin Foundation is one of the largest, oldest and most influential cryptocurrency oriented non-profit organizations in the world. The main goal of the organization is spreading the word about the benefits of blockchain technology, cryptocurrency industry and fintech with the help of different trainings and advocacy programs. Among the major activities, described in the Bitcoin Foundation’s “Marketing

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<sup>89</sup> “Projects Of The Cryptolobby”.

& Operations Plan 2018” are networking, marketing activities, education, training and lobbying<sup>90</sup>. Given these points, the sphere of activities of the Foundation is more diverse than CryptoLobby, which has only one ongoing project, described above. Furthermore, the Bitcoin Foundation regularly communicates with the Senate Committee and other governmental bodies in the USA in order to express its opposition to a particular bill (as in the case of “S.1241: Combating Money Laundering, Terrorist Financing, and Counterfeiting Act of 2017”<sup>91</sup>) or to prevent the adoption of laws, which would potentially harm the cryptocurrency industry. Advocating the best interests of cryptocurrencies (Bitcoin in particular) in the national parliaments as well as on different levels of the state (national, regional and local) is one of the most important objectives of the organization. What is more, the Bitcoin Foundation is working on building an effective network, which would consist of the members of other cryptocurrency communities. In addition, the organization is actively engaging in educational activities: in 2018 it is planning to organize a worldwide training on “How to get started with cryptocurrency and how to invest in it”<sup>92</sup>. The Bitcoin Foundation is also cooperating with Blockchain Academy and CryptoCurrency Certification Consortium (C4) in order to create effective workshops and sessions all around the world.

The Bitcoin Foundation is functioning globally: it is headquartered in Washington, D.C., the USA, but has representative offices all around the world. What is more, each person, who owns Bitcoin, can become a member of this organization. Many famous cryptocurrency enthusiasts, investors and CEOs (Chief Executive Officers) of the global projects joined the Board of Directors of the Foundation, which signifies about the quality

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<sup>90</sup> Marketing & Operations Plan 2018, ebook, 1st ed. (Washington D.C.: The Bitcoin Foundation, 2018), 9 - 10. <https://bitcoinfoundation.org/wp-content/uploads/2018/04/MarkOps-Strategy-2018-V1.1.1-compressed.pdf> (accessed 20 May 2018).

<sup>91</sup> “Marketing & Operations Plan 2018”, 10.

<sup>92</sup> “Marketing & Operations Plan 2018”, 19.



of the organization and its reputation in the world. Among the most influential and famous members the Board – Llew Claasen (co-founder of TrafficSynergy, Clicks2customers, and SynthaSite), Brock Pierce (founder of Blockchain Capital, multimillion company, which invests in the best blockchain projects), Bobby Lee (co-founder of BTCC, one of the biggest Bitcoin exchanges in the world), Vinny Lingham (co-founder of Civic.com, one of the most successful projects in the Silicon Valley), etc.<sup>93</sup>. This evidence shows that the Bitcoin Foundation is a very influential organization in the world of blockchain with many of its members being the opinion makers.

It is important to note that unlike the CryptoLobby organization the Bitcoin Foundation has a well-developed infrastructure as well as a clear understanding of the goals and values of the organization. The Bitcoin Foundation states in its Manifesto that each person has certain financial rights, which also apply to the use of cryptocurrency as a way of payment or investment, and those rights should not be “impeded by governments, regulators, financial institutions or other humans”<sup>94</sup>. In my opinion, even though the organization does not address the issue of regulation directly, it is acting against the regulation of the cryptocurrency industry. This assumption can be supported by the fact that the representatives of the Bitcoin Foundation claim that the major feature of cryptocurrencies is decentralization and autonomy. Moreover, the Bitcoin Foundation claimed: “No other significant cryptocurrency lobbying organization has a “*no state*” or *libertarian philosophy* as a core principle”<sup>95</sup>. Thus, according to the Foundation, the

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<sup>93</sup>Bitcoin Foundation, "Board Of Directors - Bitcoin Foundation", 2018.

<https://bitcoinfoundation.org/about/board-of-directors/> (accessed 20 May 2018).

<sup>94</sup> Manifesto Of The Bitcoin Foundation, ebook, 1st ed. (Washington, D.C.: The Bitcoin Foundation, 2016), 1, [https://bitcoinfoundation.org/wp-content/uploads/2017/03/Bitcoin\\_Foundation\\_Manifesto.pdf](https://bitcoinfoundation.org/wp-content/uploads/2017/03/Bitcoin_Foundation_Manifesto.pdf) (accessed 20 May 2018).

<sup>95</sup> “Marketing & Operations Plan 2018”, 16.

cryptocurrency industry should have a right to function without the intervention of a third party or any other controlling body<sup>96</sup>.

In conclusion, the Bitcoin Foundation is one of the brightest examples of the crypto-related non-profit organizations, which carry out activities in various fields (advocacy, education, marketing, networking, etc.) in order to promote the use of cryptocurrency (namely Bitcoin). The Bitcoin Foundation has libertarian values, which means that the organization is acting against the regulation of the cryptocurrency and involving third parties in it. This rather unique feature distinguishes the Bitcoin Foundation from the other lobby organizations in the world. What is more, it attracts a big number of famous crypto-enthusiasts, investors and specialists from different fields.

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<sup>96</sup> "Bitcoin Foundation – Supporting Education, Adoption And Development In Bitcoin", Bitcoin Foundation, 2018, <https://bitcoinfoundation.org>.

## Conclusions

This MA thesis examined the topic of cryptocurrency regulation based on the cases of the USA, Canada, Great Britain and China. Moreover, it analyzed the issue of cryptocurrency lobbying by different organizations and answered the important question, “What is the perception of cryptocurrencies in the modern world?” . The conclusions of this analysis are numbered in accordance to the research questions, outlined in the introduction.

1. After exploring the issue of the regulation of cryptocurrencies I came to the conclusion that it is the next important stage in its evolution and development. The industry is growing rapidly and attracting a big number of ordinary people, investors and representatives of business circles. Unfortunately, nowadays the cryptocurrency industry is also associated with different illicit operations, such as money laundering, human trafficking, the drug trade, etc. What is more, the industry is always under the threat of being hacked. Thus, the international community cannot leave the cryptocurrency industry and the ICO sector underregulated and is looking for an effective regulatory framework, which will satisfy both the state authorities and the cryptocurrency community. I found out that one of the keys to successful regulation, which will be advantageous for both sides, is cooperation between the state authorities and business circles.
2. Concerning the perception of cryptocurrencies, which was also outlined as one of the research questions, the research revealed that it varies from country to country and from organization to organization. Besides the traditional perception of cryptocurrencies as a type of investment (securities, derivatives), property or an alternative to traditional currency, cryptocurrencies may also be treated as a form of communication. In this case, cryptocurrencies are protected as one of the basic human right to freedom of speech and should not be restricted or controlled by the

third party. This unusual perception was proposed by CryptoLobby, the American organization acting in favor of regulations, which will protect ordinary users from the speculators. The other unusual perception was proposed by the Nobel Prize laureate Robert Shiller, who claimed that Bitcoin is a psychological phenomenon. What is more, cryptocurrencies (namely Bitcoin) are often treated as a financial bubble, which would soon burst just like in the case of the tulip mania in the XVII century. This MA thesis has argued both the pros and cons of this assumption and came to the conclusion that Bitcoin does not have many similarities with the tulip mania: in comparison to the tulips it has better qualities and characteristics.

3. In order to answer to the question about the regulation of cryptocurrencies in the USA, Canada, Great Britain and China, I used the comparative case study and concluded that each country has its own approach to the issue of cryptocurrency regulation. The approach is often influenced by the country's mentality, as well as different historical, political, financial and economic circumstances. As this MA thesis reveals, there are countries that have already come up with regulatory mechanisms (the USA, Canada, China) and countries which are in the process of researching them (the United Kingdom).
4. Canada has become a cryptocurrency and ICO paradise: due to the effective regulations introduced by the government, the country is attracting a big number of start-ups and investors from all over the world. The country has adopted a "carrot-and-stick" approach, which seems to be very successfully applied by both the regulators and business circles. Canada has the opportunity to continue successfully developing the cryptocurrency industry and the ICO sector in the future. What is more, recently the country has introduced the concept of "Green Bitcoin": the cryptocurrency is mined with the help of renewable sources of energy, such as

hydropower, wind and sun. Thus, Canada is changing the understanding of the cryptocurrency industry and bringing its own innovative approach to it.

5. Just like in the case of Canada, the USA has also come up with a regulatory framework for the cryptocurrency industry and the ICO sector. However, the regulations were not embraced by the cryptocurrency community and business circles. In the beginning of 2018 SEC admitted that the ICO regulations did not work properly: there are a big number of ICOs which are held on the territory of the USA without all necessary permissions.<sup>97</sup> What is more, the American vision of cryptocurrency regulation significantly influences the development of the industry in the world: recently, tech giants like Google Facebook, Twitter, LinkedIn and SnapChat banned all crypto-advertisements on their platforms. The country needs to reconsider its approach to cryptocurrencies, which are nowadays significantly restricted by the state authorities. There is a possibility that the USA will continue tightening the restrictions on the cryptocurrency industry and the ICOs, which are already suffering from extensive regulations and restrictions.
6. The United Kingdom has not yet introduced a regulatory framework for the cryptocurrency industry and the ICO sector. However, they have initiated an in-depth research of the industry in cooperation with the influential UK research centers and organizations. Such a delay in creating a regulatory mechanism can also be explained by Brexit: the country is in the process of negotiations with the European Union and the character of the regulations will depend on the UK's relationship with the EU. It is worth mentioning that the UK is also considering the possibility of becoming a well regulated cryptocurrency hub, which would be advantageous for the state authorities and business circles. There is a possibility that

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<sup>97</sup>Dillet, "SEC Says Cryptocurrency Exchanges Are An Unregulated Mess".

the UK will follow the Canadian regulatory experience, which can be explained by the strong historical, cultural and linguistic connections between these two countries.

7. The People's Republic of China has introduced an aggressive approach towards the regulation of cryptocurrencies. Unlike the USA and Canada, in 2017 China has eventually banned the ICO sector and partially banned the cryptocurrency industry. The remaining industry (i.e. mining operations) is functioning under the strict control of the Chinese authorities and may be banned in the near future. Many Chinese start-ups are fleeing China and moving to countries which are more welcoming to the newly born industry, i.e. Canada. However, there is a chance that the People's Republic of China will eventually come up with an effective regulatory framework that will not contradict the Chinese system and give the cryptocurrency industry a second chance.
8. Concerning the topic of lobbying the cryptocurrency industry and the ICO sector, which was also outlined as a research question for this MA thesis, I concluded that the issue of regulations is actively discussed by the representatives of the governmental, non-governmental organizations and business circles. Nowadays most countries are already working on creating an excessive cryptocurrency regulation mechanism, but they often do so without proper understanding of the issue. This thesis revealed that the cryptocurrency industry needs effective lobbying at the national level, because the cooperation between the government and the private sector in most countries is on a very low level. Nowadays there are many organizations in the world which work in the sphere of cryptocurrencies and ICOs. Among their sphere of activities – education, training, advocacy / lobbying, marketing, etc. One of the unexpected outcomes of this MA thesis was that most

organizations in the field of crypto-lobby do not oppose the process of cryptocurrency regulation, which is considered to be inevitable. However, most organizations advocate in favor of “good” laws, which would not conflict with the essential characteristics of cryptocurrencies.

9. This MA thesis also analyzed that activities and politics of one of the biggest and most influential crypto-related organizations in the world is the Bitcoin Foundation, which is promoting the advantages of cryptocurrencies and blockchain technology to the media, politicians, business circles and ordinary citizens through various educational and lobbying activities. I came to the conclusion that the Bitcoin Foundation attracts a big number of influential partners and has a high position in the cryptocurrency community. One of the most interesting features of the Bitcoin Foundation is its “no state” or libertarian philosophy, which implies that the organization is against the cryptocurrency regulations. Moreover, the Bitcoin Foundation is opposing any third party interference in operations involving cryptocurrencies, because such actions contradict their essential features (decentralization, anonymity, transparency, etc).

In conclusion, there is no simple answer to the question, whether the cryptocurrency industry should be regulated, banned, or ignored. Without doubt, the cryptocurrency industry has a great potential and a huge area of application, which should be discovered in the future. However, there is still no clear understanding, where this rapidly developing industry is moving. The future of the cryptocurrency industry often depends on the countries in which they are used: some are creating an effective regulatory framework for the cryptocurrency industry, while others are banning or ignoring them in fear of the novelty that they bring.

## Appendix

Table 1. Comparison of gold, tulips and Bitcoin as stores of value

	Gold	Tulips	Bitcoin
<b>Scarcity</b>	<b>Good</b> , though more gold can always be discovered.	<b>Good</b> , because while more can be bred, they constantly die off, and the scarcity of any individual color characteristic is much higher.	<b>Excellent</b> . Fixed at 21 million coins.
<b>Fungibility</b>	<b>Excellent</b> .	<b>Poor</b> . A red-fringed yellow tulip bulb isn't the same thing as an orange tulip bulb.	<b>Good</b> . Not fully fungible though because it's possible to track coin movement and ascribe a history to them.
<b>Low transfer friction</b>	<b>So-so</b> . Moving gold requires physical transport, but with some trust you can use gold certificates to represent gold.	<b>So-so</b> .	<b>Excellent</b> . For a few dollars, you can transfer as much value as you want, trustlessly. However, as mentioned, in the context of a transactional currency it's bad as a few dollars is far too expensive for that.
<b>Cognizability</b>	<b>Very good</b> .	<b>Terrible</b> . It's hard/impossible to verify what a tulip will look like from a bulb, and tulip values differed vastly.	<b>Excellent</b> , with a caveat. If bitcoin shows up at your bitcoin address, you know it's bitcoin, by definition. There are, however, brand confusions between Bitcoin, Bitcoin Cash, Bitcoin Gold, BitcoinDark, and the upcoming Bitcoin Diamond.
<b>Divisability</b>	<b>Excellent</b> . Can divide down to the atom level.	<b>Terrible</b> . You can't divide a tulip bulb.	<b>Very good</b> . Divisible down to a 'satoshi', which is 0.00000001 bitcoin.
<b>Resistance to theft/seizure/loss</b>	<b>So-so</b> .	<b>So-so</b> .	<b>Excellent</b> ...as long as the user is storing her bitcoin well. Excellent is the upper bound, but there are many things an individual user can do to reduce this. See everyone who kept their bitcoin in Mt. Gox, for instance, or anyone who has lost their private key.
<b>Stability of value</b>	<b>So-so</b> .	<b>Terrible</b> .	<b>Terrible</b> .
<b>Durability</b>	<b>Excellent</b> .	<b>Terrible</b>	<b>Excellent</b> .

Source: Medium. Blog. [https://medium.com/@themihaly/comparing-bitcoin-to-tulips-is-absurd-stop-it-](https://medium.com/@themihaly/comparing-bitcoin-to-tulips-is-absurd-stop-it-9c8b489727fc)

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