

AN ANALYSIS OF NEOLIBERAL SOCIALITY IN THE PARTICULAR CASE
OF BITCOIN

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ABSTRACT

AN ANALYSIS OF NEOLIBERAL SOCIALITY IN THE PARTICULAR CASE OF BITCOIN

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This thesis analyzes the texts of Bitcoin as a particular case for Neoliberal discourse as it is developed by Austrian School of Economics. Fundamental concepts of the Austrian School of Economics are based on individual liberty. This liberty considered to be possible only in the absence of the state in their theories. This absence defined in terms of states' non-interference to market. The texts of Bitcoin follow a similar trail of thought and conceptualize freedom on the basis of individual liberty versus state and financial institutions. By claiming to bypass the intermediary institutions which are 'hampering' free-market, the texts of Bitcoin argue to overcome the control of the authorities.

The main problematic of this thesis is to discuss how the market relations in Neoliberal discourse reduce the notion of freedom to financial freedom produced by market laws. Texts of Bitcoin claim to bypass authority of the state and intermediary institutions with the logic of free-market and the technology they propose. By discussing their main problematization and their claims this thesis aims to show what kind of governance Bitcoin aims to bring with the logic of pure market relations.

Keywords: Bitcoin, cryptocurrencies, Neoliberalism, Neoliberal governance, Austrian School of Economics.

ÖZ

BİTCOİN ÖRNEĞİNDE BİR NEOLİBERAL TOPLUMSALLIK İNCELEMESİ

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Yüksek Lisans, Sosyoloji Bölümü

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Bu tez Bitcoin metinlerini, Avusturya Ekonomi Okulu tarafından geliştirilen Neoliberal söylem için bir örnek olarak analiz etmektedir. Avusturya Ekonomik Okulu'nun temel kavramları bireysel özgürlük üzerine kurulmuştur. Bu teorilerde özgürlüğün devletin yokluğunda mümkün olduğu nitelendirilmiştir. Bu yokluk devletin piyasaya müdahale etmeyişi üzerinden tanımlanmıştır. Bitcoin üzerine yazılan metinler benzeri bir düşünce izi takip etmektedir ve özgürlüğü bireysel özgürlük – devlet ve finansal kuruluşlar karşılığında kavramlaştırmaktadır. Bitcoin metinleri piyasanın etkinliğini düşüren bu aracı kurumları devre dışı bıraktığını iddia ederek otoritelerin kontrolünü aştığını ileri sürmektedir.

Bu tezin ana sorunsalı, piyasa ilişkilerinin Neoliberal söylemde özgürlük kavramını piyasa kanunları tarafından üretilen bir finansal özgürlüğe nasıl indirgediğini tartışmaktır. Bitcoin metinleri, devlet ve finansal kuruluşların otoritelerinin kontrolünü serbest piyasa mantığı ve öne sürdükleri teknoloji ile aştıklarını iddia etmektedir. Bu tezin amacı bu metinlerdeki sorunsalları ve iddiaları tartışarak, Bitcoin'in serbest piyasa mantığına dayanan 'saf' piyasa ilişkileri ile ne tür bir yönetimsellik anlayışı getirmeye çalıştığını tartışmaktır.

Anahtar Kelimeler: Bitcoin, kripto paralar, Neoliberalizm, Neoliberal Yönetimsellik, Avusturya İktisat Okulu.

To my family...

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CHAPTER I

INTRODUCTION

In Buenos Aires the Zahir is a common twenty-centavo coin into which a razor or letter opener has scratched the letter N T and the number 2; the date stamped on the face is 1929. (In Gujarat, at the end of the eighteenth century, the Zahir was a tiger; in Java it was a blind man in the Surakarta mosque, stoned by the faithful; in Persia, an astrolabe that Nadir Shah ordered thrown into the sea; in the prisons of Mahdi, in 1892, a small sailor's compass, wrapped in a shred of cloth from a turban, that Rudolf Karl von Slatin touched; in the synagogue in Córdoba, according to Zotenberg, a vein in the marble of one of the twelve hundred pillars; in the ghetto in Tetuán, the bottom of a well.)

-Jorge Luis Borges (The Zahir)

1.1 Research Problem

Economists argued whether financial crisis of 2007-08 is the most severe financial event in the history since the Great Depression or not. (Steward 2008, April 10; Hilsenrath et al. 2008, September 18; Worstall 2014, August 27) Flaws of the financial system, financial institutions and their policies criticized as the reason which caused the crises. Also numerous possible solutions posited as how should governments, financial institutions and central banks handle the situation with their policies.

Following events after the crises launched many organizations which had divergent aims such as Occupy Wall Street¹ which is “fighting back against the corrosive

¹ NYC General Assembly Occupy Wall Street Website | FAQ, viewed on <http://www.nycga.net/resources/faq/>, on 22 January 2016

power of major banks and multinational corporations over the democratic process”² and the organizations like Positive Money which aims to “democratise money so that it works for society and not against it”³ or the Robin Hood Tax which aims that “the financial sector should pay their fair share to clear up the mess they helped create”.⁴ All criticize in their own perspective that the governments’ financial policies, financial institutions and corporate forces as the root of the problems. These critics directed on the institutions which control economy. Prominent part of these critics posit financial corruption of the institutions, public and private sector officials, corporate forces, banks and their reckless and greedy monetary policies which caused the crises and income inequality.

Austrian School of Economics oriented writers argued that the reason of the crisis is faulty monetary policies of Federal Reserve (Stewart 2008, December 31; Ravier and Lewin 2014, July 30; Tempelman 2014, July 30). In this sense these organizations and the critics of Austrian School oriented writers fall within the same front as they all blame faulty monetary policies of the financial institutions and by reforming these institutions efficiency of the market would be restored.

In the wake of the crises and the debates that put the financial institutions into question, mysterious and pseudonymous author or a group of people known as Satoshi Nakamoto introduced computer software called Bitcoin.⁵ Nakamoto

² Occupy Wall Street Website, | About, viewed on <http://occupywallst.org/about/> , on 22 January 2016

³ Positive Money | FAQ, viewed on <http://positivemoney.org/faqs/> , on 22 January 2016

⁴ Robin Hood Tax |viewed on <http://www.robinhoodtax.org/why>, on 25 July 2016

⁵ Freedom of speech, transparency and decentralization advocate Nozomi Hayese (Ph.D) pointed out the parallelism of Bitcoin with the Occupy Wall Street movement stating that the invention of cryptocurrencies coincides with the global financial meltdown of 2008 which is followed by bank bailouts with tax payers money ended up as austerity for the people, “At the onset of the Occupy movement, scholar-activist David Graeber spoke of how people had woken up to the fact that "money is a political arrangement" and is "a social set of promises that people make to one another". He noted how this crisis revealed that governments treat ordinary people’s debts as sacrosanct with no one allowed to default, while bankrupt bankers are bailed out by those taxpayers, who are then just loaded with more debt.” Hayese, N, Bitcoin: innovation of money and evolution of governance, 2016, 15 July, viewed on <https://www.opendemocracy.net/digital/liberties/nozomi-hayese/bitcoin-innovation-of-money-and-evolution-of-governance> , on 16 May 2017.

published the design paper on a website forum⁶, in which he claimed that he found a way for creating a new kind of currency and also a way to bypass the need of trusted third parties (intermediaries such as financial institutions and banks) for financial transactions with open source⁷ computer software (Nakamoto 2009). Simply Bitcoin is a computer software that allows users to make their own currency and payment system which is claimed free of state and intermediary institutions that are hampering free-market.

In this thesis I analyze the texts of Bitcoin as a particular case for Neoliberal discourse as it is developed by Austrian School of Economics. Fundamental concepts of the Austrian School of Economics are based on individual liberty. This liberty considered to be possible only in the absence of the state in their theories. This absence defined in terms of states' non-interference to market. The texts of Bitcoin also follow a similar trail of thought and conceptualize freedom on the basis of individual liberty versus state and financial institutions. By claiming to bypass the intermediary institutions which are 'hampering' free-market, the texts of Bitcoin argue to overcome the control of the authorities. This dichotomy conceptualizes freedom not only as the absence of the state but also financial institutions that control the market. In this perspective freedom can only be achieved in the absence of any government public or corporate.

The theories of Austrian School are well known for their claims rely on liberal theories which go parallel with the history of the capitalism. The significance of this thesis is to read these claims with a historical and empirical case that emerged in the form of digital money called crypto-currency. Bitcoin is first of its kind that is quite famous, frequent and effective. The texts of Bitcoin posit an ideal society through

⁶ p2p foundation website, Bitcoin open source implementation of P2P currency, viewed on <http://p2pfoundation.ning.com/forum/topics/bitcoin-open-source> , on 20 February 2015

⁷ See Open Source Website | What is Open Source?, retrieved from <http://opensource.com/resources/what-open-source> , on 19 January 2015, "Open source software is software whose source code is available for modification or enhancement by anyone. "Source code" is the part of software that most computer users don't ever see; it's the code computer programmers can manipulate to change how a piece of software—a "program" or "application"—works. Programmers who have access to a computer program's source code can improve that program by adding features to it or fixing parts that don't always work correctly."

unhindered market relations with financial liberty. Bitcoin claimed as controlled by no one by bypassing states' and institutions' control and regulations over money. Main claim of Bitcoin is to be free from institutional control proposed as individual liberty. My aim in this thesis is to make a critical analysis of this claim of liberty and to discuss what kind of governance this individual liberty produces.

In my analysis I use a Foucauldian theoretical framework. By describing the conduct of Bitcoin's operations, my aim is to make a textual analysis of Bitcoin in order to show how the truth of 'pure', unhampered market relations are produced in accordance with the logic underpinning Neoliberal governance. Through making a Foucauldian analysis my aim is to explain that the less government of Neoliberalism does not mean less governance but we are governed through the 'freedom' of individual liberty through the competition in the free-market.

The main problematic of this thesis is to discuss how the market relations in Neoliberal discourse reduce the notion of freedom to financial freedom produced by market laws. Texts of Bitcoin claim to bypass authority of the state and intermediary institutions with the logic of free-market and the technology they propose. By discussing their main problematization and their claims my aim is to show what kind of governance Bitcoin aims to bring with the logic of pure market relations.

Reading the texts of Bitcoin through the axioms of Austrian School of Economics would be helpful for showing the parallelism in between. Similarities of the conceptualizations of free-market would be helpful for explaining the foundation of Neoliberal sociality. I expect this analysis to contribute to the analysis of the specificities of the neoliberal governance.

1.2 Analytical Case & Method

1.2.1 Empirical Material and Method

I take the texts of Bitcoin as the empirical material of analysis for this thesis. I analyze the texts published in numerous websites such as news sites, Bitcoin

exchange websites, Bitcoin foundations' (NGOs) websites, e-mail groups and personal blogs. Interviews with developers published on journals are also used for having firsthand insight for the operations. My aim is to make Foucauldian textual analysis to the statements of enthusiasts, entrepreneurs, developers and critics of Bitcoin around the key themes I outlined. The problematization of statements in these texts would show us their proposed solutions as 'autonomous money' with the help of new technology as a savior for financial catastrophes. I argue that decentralized autonomous money defined in the texts has strong parallelism with the concept of free-market monetary system of the Austrian School of Economics. Their works would be helpful for showing the similarities and for defining the underlying rationality of the texts of Bitcoin. Through this analysis my ultimate aim is to show operation of Neoliberal governance in this particular case as the enthusiasts and entrepreneurs defend Bitcoin for 'controlled by no-one' and 'free from state and financial institutions' yet following the same logic of free-market.

I do not make an analysis of capital using the equations and economic models as the terms of capital could only show us things according to the logic of cycle of capital accumulation. Instead I will make a Foucauldian textual analysis of the writings of Bitcoin adherents' and critics' to show the domination of neoliberal governance on the language they use and the truth they produce according to the logic of capital: Objective market laws of free-market. I take this as an example for Neoliberal sociality which is based on market fundamentalism. Studying this particular case of Neoliberal sociality I aim to contribute to critical analyses of Neoliberal governance.

I expect this study would give us an example for market fundamentalism as the domination of financial language defines freedom in terms of market laws even the enthusiasts and developers of Bitcoin define themselves in contrast to state and financial institutions and their policies.

1.2.2 The Use and users of Crypto-currencies

What might look like a simple computer program at first glance has been developed and became a serious phenomenon across the web and in the financial world through the years, and claimed that it could be the solution many have been looking for. Following the success of Bitcoin many altcoins (common name for alternative cryptocurrencies designed with Bitcoin's open source code) have been developed and used widely.⁸ According to Crypto-Currency Market Capitalizations website, right now there are 741 cryptocurrencies, 119 assets and 4002 markets available online.⁹ Together with Bitcoin cryptocurrencies can be converted to each other and to traditional currencies on exchange websites.¹⁰

According to a multilingual (Chinese, Japanese, Spanish and English) online survey of Crypto-currency related website *CoinDesk* with near 4000 participants: %60 percent of the users are under 35 years old, %90 of the users are male, %65.8 of the users are identified themselves as 'white' while second place hold by 'Asian'. %23.9 of users annual household income is between \$50000-100000 while %21.25 of users below \$25000. Lastly %49.85 of the participants of survey is located in North America, %32.99 in Europe and %9.36 in Asia. These numbers pretty much summarize the composition of users as the website said "Young, pale, techie and male" (New CoinDesk Report Reveals Who Really Uses Bitcoin 2015, 10 June). Another news website reports the profile of users as "computer programming enthusiasts, speculative investors, libertarians and criminals" (What Google Tells Us About Bitcoin Users, 2015, 19 June).

⁸ Open source code enable developers see the code of the program and to code their own currencies for their own aims. Open source software defended for their transparency although only the experts can understand their contents.

⁹ Current market capitalization is \$96.770.470.764, 24 hour market volume is \$3.048.337.248, Bitcoin percentage of total market capitalization is %45, Crypto-Currency Market Capitalizations website, viewed from <http://coinmarketcap.com/currencies/views/all/>, on 6 June 2017.

¹⁰ Just to name few altcoins; Litecoin, Ripple, Dogecoin, Ethereum and Dash are quite popular in cryptocurrency communities. Many have their own unique features for their customers' needs and benefits although many considered as minor changes.

Since its introduction in 2009 Bitcoin has been developed and adapted massively. Today there are numerous Bitcoin and altcoin website forums, chat channels, state and non-state, profit and non-profit organizations, entrepreneurs, enthusiasts, adherents, and every kind of users come together, discuss, take decisions, spread the news, together posit and challenge the problems on numerous platforms. Many online websites and online forums available for addressing problems, sharing ideas, developing better code or simply sharing experiences and news. One of the prominent features about Bitcoin is its strong community both online and in real world.¹¹ There are online forums such as Bitcoin Talk Forum¹², Reddit's Bitcoin Community¹³ and Bitcoin Stack Exchange¹⁴ where users discuss and help each other. Bitcoin also widely takes place in social networks such as Google+ Bitcoin Community¹⁵, its Facebook Page¹⁶ and on Twitter¹⁷. There are also IRC Chat channels on freenode.¹⁸ In these groups prominent range of information and discussions can be found from basic to intermediate and to expert levels.

¹¹ Bitcoin website | Bitcoin communities, viewed on <https://bitcoin.org/en/community> , on 24 February 2015

¹² See Bitcoin Talk Forum, viewed on <https://bitcointalk.org/> , on 24 February 2015, It is stated that “The Bitcoin Forum is a website meant to host free discussion of Bitcoin and related topics. It is operated as a service to the community, and all profit is reinvested into the forum and the community.”, viewed on <https://bitcointalk.org/donate.html> , There are wide range of discussion categories such as General Bitcoin Discussion, Development & Technical Discussion, Economics, Mining, Project Development, Trading, Marketplace, Beginners and Help, Altcoins, Announcements and Local.

¹³ Reddit's Bitcoin Community Page, viewed on <https://www.reddit.com/r/Bitcoin/> , on 24 February 2015

¹⁴ See Stack Exchange Bitcoin Page, viewed on <https://bitcoin.stackexchange.com/> , on 24 February 2015, It states that, “Bitcoin Stack Exchange is a question and answer site for Bitcoin crypto-currency enthusiasts.”

¹⁵ Google+ Bitcoin Community, viewed on <https://plus.google.com/communities/115591368588047305300> , on 24 February 2015

¹⁶ Facebook Bitcoin Page, viewed on <https://www.facebook.com/bitcoins> , on 24 February 2015

¹⁷ Twitter Search | Bitcoin, viewed on <https://twitter.com/search?q=bitcoin> , on 24 February 2015

¹⁸ Freenode Bitcoin Channel, viewed on <https://webchat.freenode.net/?channels=bitcoin&uio=d4> , on 24 February 2015

There are many local and international non-profit crypto-currency organizations. Bitcoin Foundation is one of the most known and leading international non-profit organization¹⁹ which provides funding for the infrastructure and the development of Bitcoin.²⁰ It is stated that the foundation aims for the advancement of Bitcoin.²¹ There are also many other local non-profit organizations in various countries.²² Details for the meet up groups, conferences and events can be followed through many websites such as Bitcoin Foundation's website²³, Bitcoin Meetup²⁴, Bitcoin Talk²⁵ and Bitcoin Wiki²⁶ where people share their ideas and news.

1.2.3 Main Claims of Bitcoin

On the website of Bitcoin Foundation it is defined as a digital currency with many innovative features which usually called crypto-currency. (Bitcoin is an innovative payment network and a new kind of money , n.d.) Main features listed on the website such as it does not belong and backed by any bank or state with unique features of zero or low transaction fees, global scale fast mobile payments, identity security against fraud and instant transactions with anonymity (Bitcoin for Individuals, n.d.).

¹⁹ On its website it is stated that Bitcoin Foundation is an organization, however Bylaws of the Bitcoin Foundation states that Bitcoin Foundation is a non-profit corporation Inc. , see Bylaws, viewed on https://github.com/pmlaw/The-Bitcoin-Foundation-Legal-Repo/blob/master/Bylaws/Bylaws_of_The_Bitcoin_Foundation.md , on 24 February 2015

²⁰ Bitcoin Foundation website, viewed on <https://bitcoinfoundation.org/> , on 24 February 2015

²¹ It is stated that “The foundation is originally founded by a General Counsel and 5 founding volunteer board members representing 2 industry seats, 2 individual seats and 1 founder's seat.” , also stated, “Nominations, as well as voting for candidates, must be done by current Bitcoin Foundation members.”(ibid.)

²² See detailed list on Bitcoin Wiki Community Portal, viewed on https://en.bitcoin.it/wiki/Bitcoin:Community_portal , and also on Bitcoin Wiki | List of Bitcoin non-profits around the world, viewed on https://en.bitcoin.it/wiki/List_of_Bitcoin_non-profits_around_the_world, on 24 February 2015

²³ See Bitcoin website | Conferences and Events, viewed on <https://bitcoin.org/en/events> , on 24 February 2015

²⁴ See Bitcoin Meetup webpage, viewed on <http://bitcoin.meetup.com/> , on 24 February 2015

²⁵ See Bitcoin Talk Forum, viewed on <https://bitcointalk.org/index.php?board=86.0> , on 24 February 2015

²⁶ See Bitcoin Wiki | Meetups, viewed on <https://en.bitcoin.it/wiki/Meetups> , on 24 February 2015

One of the most highlighted themes of crypto-currencies is decentralization which is used together with the theme of ‘no one in control’. Bitcoin Wiki website (Internet encyclopedia for Bitcoin) defines it as “[...] an experimental, decentralized digital currency that enables instant payments to anyone, anywhere in the world.” (“What is Bitcoin?”, 2015) Crypto-currency related news websites make similar definitions for Bitcoin. For example Coindesk website defines it as “[...] a form of digital currency, created and held electronically. No one controls it. Bitcoins aren’t printed, like dollars or euros – they’re produced by lots of people running computers all around the world, using software that solves mathematical problems. It’s the first example of a growing category of money known as cryptocurrency.” (“What is Bitcoin?”, 2015)

The theme of ‘a new digital currency controlled by no one’ (which is also stated as decentralized currency denoting both technology underlying crypto-currencies and privatization of money) goes hand in hand with the theme of trust. On the Bitcoin Foundation website the theme of trust defined as being open (transparent) and public (Bitcoin, n.d.). It is claimed that people trust Bitcoin because it does not require any need for trust; this technology replaces the need for trust (in this case it would be trust in technology). Computer software does the job for issuing money and operating market instead of the banks, the state and the people working and regulating in the case of traditional currencies. It does not need any third party organizations for operating such as paying intermediary companies like PayPal, Western Union or banks. In this case the program itself, foundations and the exchange websites become intermediaries yet the texts strategically ignore this for promoting their products as a solution for the posited problems.

Another theme highlighted in the texts is the theme of transparency which is related with the theme of trust. It is claimed that Bitcoin structure is transparent. All transactions kept in its public ledger simultaneously and anonymously where everyone can see its operation online (Why do people trust Bitcoin, n.d.).

These features posited as ‘no one in control’ and being transparent claimed as that it needs no trust.²⁷ In other words it is claimed that Bitcoin is transparent and neutral for making money supply available for everyone to see, use and verify in the public ledger called blockchain.²⁸ Once processed in the blockchain it cannot be changed therefore it seems that nobody is in control or can manipulate because of its cryptographically secure structure. (What are the Advantages of Bitcoin?, n.d.) It is stated that this transparency “[...] allows the core of Bitcoin to be trusted for being completely neutral, transparent and predictable” (Ibid.). Untrustworthiness of the market is replaced with the trust for Bitcoin.

Many features claimed as the advantages of Bitcoin such as payment freedom, low or no fees for transactions, low fraud risks for merchants, security and control over money, and transparency (What are the Advantages of Bitcoin?, n.d.). Payment freedom explained as it gives users ability of sending and receiving money from anywhere around the world without the limitation of bank holidays, borders or

²⁷ In other words it is claimed that Bitcoin is transparent and neutral for making money supply available for everyone to see, use and verify in the public ledger called blockchain. Once processed in the blockchain it cannot be changed therefore it is called nobody is in control or can manipulate because of its cryptographically secure structure (What are the Advantages of Bitcoin?, n.d.).

²⁸ See Financial Times Lexicon | Definition of blockchain, retrieved from <http://lexicon.ft.com/term?term=blockchain> , on 17 February, “When people invest in Bitcoin, the money is going into the underlying technology - known as blockchain - not the payment instrument itself.

The blockchain is essentially a giant record book of all Bitcoin transactions, it is to Bitcoin what the internet is to email. This is the decentralised network where every bitcoin transfer is verified, processed and written down. It has the potential to make economic interactions cheaper, faster and more secure. The idea is to remove the need for middlemen like banks to vouch for facts, such as a person’s identity or the health of their finances — authentication processes that can be slow and costly, and vulnerable to corruption and cyber attacks. Instead, the blockchain relies on a combination of code-breaking and crowdsourcing that aims to create a self-maintaining and reliable system of record. “It’s a giant accounting ledger that everybody agrees to but nobody owns,” says Peter Kirby, president of Factom — a US start-up that helps developers build products on the blockchain.” The technology is also a big electronic system and on top of which you can build applications. Currency is just one. Land registries, identity storage and peer-to-peer stock exchanges are just some of the potential uses of the blockchain, but there are big risks, as over time the cost of maintaining the technology will rise due to tougher regulation.”

CNN Money website | What is Bitcoin?, retrieved from <http://money.cnn.com/infographic/technology/what-is-bitcoin/> , on 31 January 2015.

Jonathan B. Turpin, Bitcoin: The Economic Case for a Global, Virtual Currency Operating in an Unexplored Legal Framework, Indiana Journal of Global Legal Studies, Volume 21, Issue 1, 2014, pp. 337-338, p. 342

transaction limits.²⁹ These advantages could be summarized under the theme of efficiency.

The themes of decentralization, no one in control, trust, efficiency and transparency used in the texts are posited as a solution for the rising public dispute against financial institutions and banks which lost their public reliability during and after the crisis of 2007-08. Since Bitcoin has been introduced, it has grown and became popular not only due to features of illicit uses but mainly for libertarian motives of getting rid of ‘corrupt’ state institutions and banks. Prominent parts of the texts about Bitcoin highlight it as digital money with the features of not backed up by any state, bank or a commodity. (Caughey 2013; Clark 2013; Barski and Wilmer 2014; Turpin 2014)

1.2.4 Main Claims of Austrian School of Economics

The rationality underpinning Neoliberal governance is important for the case of this thesis as the notion of competing crypto-currencies will be taken as a case for the concept of private money of the Austrian School of Economics. I use monetary theories of Austrian School of Economics to show the parallelism and the trail of thought they share with the texts of Bitcoin. Therefore in this study I use neoliberalism as the neoliberalism of the Austrian School of Economics. Other schools of neoliberalism also will be noted where necessary.

Ludwig von Mises and Friedrich von Hayek are the prominent figures of the Austrian School of Economics. The school first originated in Austria and then spread around the world with numerous followers. Their works mostly labeled neoliberal (usually pejoratively from the left and mostly used for anti-democratic practices of market fundamentalism) and sometimes preferably called libertarian (or Austro libertarian). They are advocates of the free-market economics. Their works are

²⁹ Users may or may not discharge some amount for transactions. If they want priority in their transactions they may want to give some fee for process but it is not necessary. Also it is claimed that depositing or converting Bitcoin to merchant’s accounts comparably much cheaper to services like PayPal or credit card networks (ibid).

mostly written on against the state interference to market especially after the years following Great Depression, post war period and throughout the cold war years against socialism. In 1947 Hayek founded a think tank network for liberal intellectuals known as Mont Pelerin Society which spread their influence to policy makers around the world (Davies 2014). Their thoughts specially gained significant influence on both economic theory and public policy at the end of the twentieth century. Today mainstream economic thought and public policy moved towards to the Austrian School of Economics and embraced their perspective (Holcombe [introduction], 1999).

Although there are objections within the school that Austrian School is not neoliberal (Bagus, 2016 January 4; McMaken 2016, October 21), because of the differences of their methodology comparing other schools of liberalism such as Chicago School, considering their conceptualizations of market economics, private property, and individual liberty are very similar. Unlike Chicago School of Economics' mathematical models and equations, thinkers of The Austrian School of Economics use axioms for explaining economic rationality (or irrationality so to say). This is specifically useful for this thesis for analyzing the language of finance for explaining the subjectification process of neoliberal governance.³⁰

In the texts of Bitcoin the production of the myth of objective, 'pure' market relations is in accordance with what can be defined as Advanced liberal/Neoliberal sociality (Rose 1996, pp. 16-17), in which individuals (in an entrepreneurial form) are making cost/benefit analysis in a competitive environment for making their own currency and governing together with their interrelations of profit, non-profit, state and non-state organizations.

I take the concept of competing alternative crypto-currencies as a case for the concept of private money of the Austrian School of Economics in this thesis as it is

³⁰ For differences between two schools see Murphy, R. P, The Chicago School versus the Austrian School, 2011, June 20, viewed on <https://mises.org/library/chicago-school-versus-austrian-school> , on 23 October 2016.

claimed that the competition between money producers and different currencies will give the soundest choice to the consumers in the works of Hayek (2008), Rothbard (2005) and Hülsmann (2008). These prominent figures of the Austrian School of Economics defend the idea of privatization of issuing money with autonomous private entrepreneurs against the corruption (which is posited as inefficiency) of the state institutions which have monopoly on issuing and regulating money. Austrian School of Economics oriented writers argue that the reason of the crisis is faulty monetary policies of central banks which are explained by Austrian Business Cycle Theory.³¹ By showing their similarity with the Austrian School of Economics, the aim of the analysis is to show how the notion of freedom defined financially through private property, competition and market relations, and conceptualizing sociality through the scope of market economics.

The notion of freedom is constitutive for Neoliberal sociality as it is the foundation for agency in market economy and together they will be used and criticized as underlying theme of crypto-economics. Texts of Bitcoin also use similar set of concepts such as state intervention, financial liberty, entrepreneurship, privatization and unhindered free-market. Their problematization of market, financial institutions and monetary policies of central banks would show us how they posit the solution in terms of pure market relations with crypto-currencies.

The crypto-currency market conceptualized and designed as where the most strong and sound currency against inflation and devaluation will be used most widely

³¹ See Mises Wiki Website | Austrian business cycle theory, “The business cycle describes regularly occurring booms and busts observed in the economy and the Austrian business cycle theory (sometimes called the "hangover theory" or simply ABCT) is an explanation of this phenomenon from the Austrian School. Originally developed by Ludwig von Mises in the 1912 Theory of Money and Credit it was elaborated on by Hayek and others. In one classical rendition: Banks expand credit well beyond their own assets and by the funds of their clients, often supported or encouraged by the setting of low interest rates by a central bank. This additional credit flow into the economy from increased borrowing for capital projects stimulates economic activity. Projects which would not have been started before, seem now profitable, creating malinvestment. They increase demand for production materials and for labor and their prices rise, which, in turn, leads to an increase in prices of consumption goods. If the banks would stop the extension of credit, the boom would be rapidly over. To prevent the sudden halt of this boom (and the resulting collapse of prices), the banks must create more and more credit, and the prices will rise even more.”, viewed on http://wiki.mises.org/wiki/Austrian_Business_Cycle_Theory , on 29 October 2016.

among the competition in between many as Rogojanu et al. (2014) and Franco (2015) pointed out similarities of Bitcoin with the Austrian School of Economics. In the theories of Austrian School of Economics, competition of the private entrepreneurs in the Free-Market is defended where state intervention to market should be limited if not possible to abolish altogether, including issuing of money. Competition among many currencies will give the soundest choice to consumers. The good government is always the less government, state intervention to market is posited as the root of all evil which causes high inflation rates, economic crises and leads to totalitarianism (Hayek 2008; Rothbard 2005; Hülsmann 2008). In ‘What has Government Done to Our Money?’ (2005), Murray Rothbard asks,

“Can money be organized under the freedom principle? Can we have a free market in money as well as in other goods and services? What would be the shape of such a market? And what are the effects of various governmental controls? If we favor the free market in other directions, if we wish to eliminate government invasion of person and property, we have no more important task than to explore the ways and means of a free market in money.” (pp. 8-9)

In this excerpt freedom and government conceptualized antagonistically. State positioned against individual and property. As prominent Austrian School of Economics figure Ludwig von Mises once pointed out that “As regards the social apparatus of repression and coercion, the government, there cannot be any question of freedom. Government is essentially the negation of liberty” (Mises 2009, pp. 34-35) and “Freedom is to be found only in the sphere in which government does not interfere. Liberty is always freedom from the government” (Ibid).

The rationality underpinning Austrian School of Economics is the method of praxeology. It is ‘the science of human action’ which lies at the core of their theories. Contrary to mainstream positivist economics (allegedly Chicago School), the Austrian School of Economics adopted the methodology of deducible axioms instead of macroeconomic mathematical models of Chicago School. The very first axiom according to Mises is ‘humans act’. Economic laws must be logically deduced from this first axiom (Murphy 2003, August 28).

The human action, Mises pointed out, “[...] is the purposeful striving after desired ends. It is the intentional effort of a rational being to achieve a greater degree of satisfaction, from the being's subjective point of view” (ibid). On the basis of this conceptualization of human action, the method of praxeology works by developing imaginary constructions of pure market economy. Imaginary construction with axioms is the specific method of praxeology. “The method of imaginary constructions is indispensable for praxeology; it is the only method of praxeological and economic inquiry. It is, to be sure, a method very difficult to handle because it can easily result in fallacious syllogisms” (Mises 1998).³² Imaginary construction of Pure Market economy is where the operations of exchange between labor and private ownership of the means of production, and also the exchange of goods and services are not hampered and intervened by institutional factors.

“It assumes that the operation of the market is not obstructed by institutional factors. It assumes that the government, the social apparatus of compulsion and coercion, is intent upon preserving the operation of the market system, abstains from hindering its functioning, and protects it against encroachments on the part of other people. The market is free; there is no interference of factors, foreign to the market, with prices, wage rates, and interest rates. (ibid, pp. 238-239)

According to Hayek there have been two major traditions of individualism in the liberal thought (Hayek 2012). First one known as British and Scottish tradition started with Locke, Mandeville, Hume, Tucker, Ferguson, Burke and Smith, and also followed by Tocqueville and Acton. He calls this tradition as ‘true’ individualism. The theories of unhampered ‘pure market’ of the Austrian School follow this tradition.

The second tradition is known as the French tradition, started with Descartes and followed in and through the enlightenment with Rousseau and French

³² See Mises, L, Human Action, 1998, Ludwig von Mises Institute, Scholarship’s Edition, p. 238, He critically follows as, “It leads along a sharp edge; on both sides yawns the chasm of absurdity and nonsense. Only merciless selfcriticism can prevent a man from falling headlong into these abysmal depths.”

Revolution,³³ originated from the works of Encyclopedists and physiocrats, for Hayek, are the origin of what he calls the rationalistic individualism which is the source of modern socialist and collectivist theories. According to Hayek, this second front is formed the opposite view: pseudo-individualism. The true individualism based on imperfect and limited rationality which only governs the action of individuals partially to some extends. But for the pseudo-individualism, reason is always available and equal for all the individuals. In contrast to pseudo-individualism, “The antirationalistic approach, which regards man not as a highly rational and intelligent but as a very irrational and fallible being, whose individual errors are corrected only in the course of a social process, and which aims at making the best of a very imperfect material, is probably the most characteristic feature of English individualism.”(ibid, p.10) The antirationalistic approach argues that individual errors would be corrected with the competition in the free-market.

1.3 Literature Review

Foucauldian analysis would show that Neoliberalism may mean less government but should not be conceived as less governance (Foucault 2008). Modern state and modern individual co-determines each other's birth. Semantic linking between the term governing (“gouverner”) and the modes of thought (“mentalite”) which indicates that we must study the technologies of power with the political rationality under-pinning them (Lemke 2001). The concept of governmentality is useful for analysis as the term “pin-points a specific form of representation; government defines a discursive field in which exercising power is ‘rationalized’ as government enables a problem to be addressed and offers certain strategies for solving/handling the problem. In this way, it also structures specific forms of intervention” (Ibid, p.1). Neoliberal governmentality uses both direct and indirect interventions for leading

³³ Further on Hayek argues that, “It would be interesting to trace further the development of this social contract individualism or the "design" theories of social institutions, from Descartes through Rousseau and the French Revolution down to what is still the characteristic attitude of the engineers to social problems. Such a sketch would show how Cartesian rationalism has persistently proved a grave obstacle to an understanding of historical phenomena and that it is largely responsible for the belief in inevitable laws of historical development and the modern fatalism derived from this belief.” ibid, p. 10

and controlling individuals without being responsible for them. Design and legislation of free market is direct intervention. Producers and consumers act according to their needs as individuals is indirect intervention. We are governed through our freedom. The withdrawal of the state makes individuals responsible for their needs and enables them to order to their own conduct in accordance with their morality by giving them an entrepreneurial form. My analysis shows how this morality operates in the texts of Bitcoin.

Online community of cryptocurrencies and foundations are important for the case as entrepreneurs and consumers communicate, discuss, give feedbacks and take decisions for the development of the cryptocurrencies. I take these interrelations of profit and non-profit, governmental and non-governmental organizations' interactions as a form of what Rose call as Advanced liberal government (Rose 2004, pp. 139-140). I approach the expertise of developers and community of Bitcoin as an example for counter-expertise of Rose (2004, p. 87). Counter-expertise of developers and enthusiasts against state experts is important as market rationality de-statize the practices of government in accordance with consumer demand, accountability and competition (Rose 1996, p.41). This counter-expertise of individuals' conceptualized as no-authority in the texts of crypto-currencies while inherently replacing their own authority with the authority of financial institutions. They are allegedly opposed to the state and financial institutions' authority for financial affairs yet at the same time they are following a similar trail of thought in accordance with the free-market rationality.

Foucault (1976) argues that the individual is not something which power strikes, dominates and crushes or limits as a material. Instead individual is the effect of power which creates individual for where it extends. "In fact, it is already one of the prime effects of power that certain bodies, certain gestures, certain discourses, certain desires, come to be identified and constituted as individuals" (Ibid, p. 98). The power constitutes the individuals but at the same time individual is the 'vehicle' of power. Individuals is not something passively waiting for domination of application of power, but it is a point where power flows through and constantly

constitutes 'the individuals' and itself as a net. Government is a way for exercising power over individuals (Burchell 1996, p. 19).

In any given society there are power relations which are implemented and established in the social body through production, accumulation and circulation of discourses of truth which without there cannot be any exercise of power. Discourses are produced through exercise of power "We are subjected to the production of truth through power and we cannot exercise power except through the production of truth" (Foucault 1976, p. 93). In his interview Truth and Power, Foucault defines 'Truth',

"[...] is to be understood as a system of ordered procedures for the production, regulation, distribution, circulation and operation of statements. 'Truth' is linked in a circular relation with systems of power which produce and sustain it, and to effects of power which it induces and which extend it. A 'regime' of truth. This regime is not merely ideological or superstructural; it was a condition of the formation and development of capitalism." (Foucault 1980, p. 133)

I take the case of Bitcoin as a particular example for exercising truth of market laws in Neoliberal discourse. The developers', entrepreneurs' and enthusiasts' efforts for creating their own currencies and payment system as an example for Neoliberal sociality where they exercise power in accordance with the market logic underpinning their statements even if they positioned themselves against state' and financial institutions' authority. They are still part of the functioning exercise of the power of the market laws.

By making Foucauldian textual analysis, my ultimate aim in this study is to show the domination of Neoliberal governance over the language of the adherents who claim that Bitcoin is free from states' and institutions' authority in contrast. My contribution with this thesis would be to display a particular example for neoliberal governance. In this example I aim to show how the escaping strategy of the Bitcoin adherents from authority is entangled to the power/knowledge networks.

1.4 Outline of the Thesis

After the introduction section, in the second chapter the main themes of Bitcoin will be outlined and discussed around the notion of freedom through decentralization which is mainly the most highlighted theme in the texts. In the texts of Bitcoin, decentralization of internet and decentralization of money are taken together in support for freedom from government interference and financial institutions. After explaining their use in the texts of Bitcoin I aim to show how the neoliberal governance operates according to the competitive logic of free-market with decentralized governance. I aim to show how this governance operates by rendering individuals as producers and consumers with existing and upcoming regulations of states to show that cryptocurrency market is not regulation-free 'pure-market'. Aim of this chapter is to discuss that how we are governed through our freedom.

In the third chapter I aim to discuss the cryptocurrency market around the notion of competition to show the operation of the free-market logic in the texts of Bitcoin together with the monetary theories of Austrian School. I take the example of Bitcoin as a case for privatization of money. Private form of money stated as non-political in the texts of Bitcoin and in the theories of the Austrian School. Competition with privatization in the market would be an antidote for inefficiencies of the market which are conceptualized as immoral and political. I discuss how this non-political approach inherently imposes the truth of objective market laws as a 'commod good' for society.

Then, in the fourth chapter, I aim to show how this financial conceptualization of freedom with competition in the texts of Bitcoin laid a foundation for an ideal society with the concept of ideal money which is conceptualized on the foundation of objective market laws and 'pure' market relations.

CHAPTER 2

ON THE QUESTION OF FREEDOM

Money is coined liberty, and so it is ten times dearer to the man who is deprived of freedom. If money is jingling in his pocket, he is half consoled, even though he cannot spend it.

-Dostoyevski (House of the Dead, part 1, chapter 2)

In this chapter I aim to analyze the texts of Bitcoin through its main themes mostly used in the texts such as decentralization, competition, corruption, trust, transparency and regulation. These themes used as traits of crypto-currencies and proposed as a solution for bypassing state and financial institutions' authority for posited problems which are hampering free-market.

In the texts of Bitcoin freedom is defined through market terms in the absence of the state and financial institutions. State intervention to economy, monopoly of the central banks for issuing money and applications of commercial banking as intermediaries condemned for their policies which drops efficiency of the market.

In the texts themes of decentralization, trust, competition and transparency posit both the problems of market failures and the solutions they claim to bring to corruption, inefficiency and fraud with crypto-currencies. By analyzing these themes and their conceptualization of the market my aim is to show how they define individual liberty with financial terms in the absence of state and financial authorities they claim to bypass, yet bringing the authority of the market regulated by the state instead.

One of the most highlighted themes of crypto-currencies is decentralization which is used as the main trait of free-market. The notion of decentralization in the texts of Bitcoin plays two roles at the same time: One referring to technology, while the other one referring the discursive field of political economy. Notions of anti-government and 'no control' makes these approaches meet at a similar ground.

2.1 Freedom of Information

First use of decentralization is on the underlying technology of Bitcoin called Blockchain. Second use is on the question of decision making in the market. This double use of decentralization overlaps two meanings together in the texts. The use of new technology overlaps together with economic efficiency and transparency against state intervention and censorship.

First fold is referring the problems of (and a solution with Blockchain technology) internet censorship. Arguments and claims in this fold are concentrated around the question of state intervention to internet which follows similar line of thought with anti-state intervention to economics which will be inquired in the following section.

Internet censorship discussions of crypto-currencies have a strong parallelism with the Cypherpunk movement and Wikileaks.³⁴ Cypherpunks are activists advocating technologies for enhancing individual privacy for social and political change. Wikileaks is an international non-profit organization working for transparency and civil rights founded on 2006 (Karhula 2011, 19 January). Their critics are on Internet intermediaries used as proxy censors, both private and state actors pressure upon them to shutdown organizations or refusing their activity or their fiscal transfers. Examples of Wikileaks show that how the intermediaries act under pressure. “[...] in 2010 over its release of thousands of documents, Wikileaks’ data-storage account was canceled, its domain-name service provider refused it service, and the accounts of those accepting donations were frozen by PayPal and other payment systems” (Mauer et al. 2013, p. 266). Later on Wikileaks adopted Bitcoin as their preferred

³⁴ Hughes, E, A Cypherpunk's Manifesto, 1993, 9 March, viewed on <http://www.activism.net/cypherpunk/manifesto.html> , on 19 August 2016.

May, Timothy C, The Crypto Anarchist Manifesto, 1992, 22 November, viewed on <http://www.activism.net/cypherpunk/crypto-anarchy.html> , on 19 August 2016.

Assange, J, Cypherpunks Freedom and the Future of the Internet, 2012, OR Books

Crypto.is A Cypherpunk Project website, viewed on <https://crypto.is/> , on 19 August 2016.

Wikileaks website, viewed on <https://www.wikileaks.ch/> , on 19 August 2016.

donation mechanism. Non-profit journalistic organization Wikileaks revealed that they bypassed the financial blockade with Bitcoin (Matonis 2012, 20 August; Rizzo 2014, 24 January; Hajdarbegovic 2014, 16 September). Soon also for other purposes Bitcoin emerged as a “censorship-resistant digital currency” (Mauer et al. 2013, p. 266).

Although Bitcoin refueled the discussions of internet censorship the decentralization of the internet is not a new phenomenon between early users of internet. First attempts of building a secure communications system came out in the beginning of the 1990s. Technology and science website Motherboard reporter Joseph Cox states that, “[...]a decade later, technologies used to distribute data—such as BitTorrent³⁵—took off. Recently, we have had Bitcoin, which—although not fully decentralized (its ledger is a centralized system)—has sent shock waves throughout the tech world because of the power it gives back to users' finances.”(Joseph Cox 2014, 8 May) Cox proposes it maybe better to call this new phenomenon the re-decentralization of the internet.

Bitcoin advocate Andrew Wagner who works as Director of Public Relations for the Bitcoin Cooperative which is an association for advancement of Bitcoin (2014, 10 September) argues that peer-to-peer technology (crypto-currencies also use same technology) can help the problem of decentralization of internet, it is possible to send any kind of information without using a central server with this technology which is enabling censorship control. Bypassing the state intervention is one of the main aims of crypto-currencies against any kind of censorship, economic or political.

Yet this is not an easy problem to overcome. Beside the program of Bitcoin there is also hardware infrastructure that internet use.

“These technologies will remove the need for centralized networks and servers. We now have a new way of thinking about how the Internet should work, and all of the protocols necessary to make that a reality. One thing that the open source and hacktivist communities cannot easily replace, however, is the physical infrastructure itself: the wires that carry the data sent between

³⁵ BitTorrent is a peer-to-peer (p2p) file sharing system

nodes are still owned by corporations and governments, which can monitor, restrict, or block your online activities.”(Wagner 2014, 10 September)

The use of ‘decentralized’ software such as peer-to-peer programs is one side of the decentralization, the use of electricity, communication lines, cables, servers and computers intervened by companies and governments are the other side of internet: Hardware infrastructure is different than programming to avoid surveillance and censorship. It is not so easy to avoid censorship or control since the internet uses communication infrastructure which is often intervened by states. Making a new program is one thing but replacing all infrastructures is another and would not be that easy.

Decentralization here denotes bypassing the need of a central server for communication yet it is complicated as it has argued above. Uses of the term ‘decentralization’ in these arguments are quite different than the use of decentralization in politics and economics as in the competition among private entrepreneurs and their interrelations with voluntary organizations for distributing the authority of decision making among different parties. The following section is on the use of decentralization for its purpose serving as an answer for decision making.

2.2 Freedom of Decision Making

In the texts of Bitcoin (and other crypto-currencies) one of the most highlighted themes is that it is a ‘decentralized currency’. Underlying rationality of decentralization discussions can be summarized under the topic of who do the decision making or planning. In the texts the critics are concentrated on the question of state intervention and financial institutions’ policies. In the texts, underlying technology of Blockchain overlaps with the free-market laws as they are proposed as an antidote for financial catastrophes with efficiency of ‘no control’.

For example Bitcoin advocate and entrepreneur Eric Voorhees defines decentralization of Bitcoin with the traits of “[...] no central control: no central repository of information, no central management, and, crucially, no central point of failure”(Voorhees 2015, 23 January). Another definition conceptualizes it as “No one

controls it. Bitcoins aren't printed, like dollars or euros – they're produced by people, and increasingly businesses, running computers all around the world, using software that solves mathematical problems” (Coindesk website | What is Bitcoin?, n.d.). Definitions of decentralized currency posit their solution as privatization of money with internet. There is a strong parallelism with the concept of private money of the Austrian School of Economics and the texts of Bitcoin. Developer, entrepreneur and writer Clark (2013, p.2) describes Bitcoin as a decentralized digital currency which does not rely on any trusted authority such as governments and banks to mediate or issue currency. Bitcoin advocates Barski and Wilmer (2015, pp. 12-13) states Bitcoin is decentralized like gold coins that there are no central authority which controls its supply. And they also denote that it is sometimes defined as stateless currency, Reddit's Bitcoin Community Page also defines Bitcoin as a decentralized currency (Reddit | Bitcoin, n.d.).

In the texts of Bitcoin 'centralization' is used to describe the position of banks' and the states' control over issuing money as financial authorities. Decentralization here refers to distributing states authority and monopoly of issuing money and decision making to entrepreneurs and consumers. Yet it is mostly proposed as no control and authority in the texts.

Another example would extend this thought better. Bitcoin journalist Jean-Pierre Buntinx (2015, July 22) highlights decentralization as,

“Decentralization in a practical form means distributing functions, powers, things or even people away from one central location or one central authority. To put decentralization into everyday terms: a government is a central authority. There are a handful of people, who convene in one – central – location and determine the fate of an entire country or nation. Very few people hold the power to decide over the lives of millions, and such a balance of power is not fair.”³⁶

³⁶ See Buntinx, J. P., Bitcoin: A Decentralized Digital Currency Relying on Centralized Services And Platforms, 2015, 22 July, Bitcoin.com, viewed on <https://news.bitcoin.com/bitcoin-a-decentralized-digital/>, on 16 September 2015

Buntinx criticizes the concentration of decision making in hands of few who decide the fate of many in institutions such as central banks or financial institutions. Instead of this it should be decided by entrepreneurs' competition and consumers' demand by market laws.

Another Bitcoin adherent and entrepreneur Elizabeth Ploshay who serves on Bitcoin Foundation Board of Directors and as Secretary of the Board and also Account manager of Bitpay (A company which makes Bitcoin payment processing services for merchants who wants Bitcoin integrations for their businesses) gives one of the best examples on decentralization which does not limit Bitcoin with financial decentralization but also including politics.

“History provides evidence of the tremendous failure of central planning with the collapse of the Soviet Union, massive starvation and lack of development in North Korea, and right now a bloated US Government with a growing bureaucracy with an accompanied skyrocketing debt. On a US-centric note, how can a Washington bureaucrat really know and meet the needs of a school teacher in California or a farmer in Iowa? In the end of the day, each individual knows what is best for his/her needs and with systems and societies based on greater individual responsibility, in turn systems will be stronger and more diverse and meet more needs than blanket solutions and inefficient “one-size fits all” policies. So, while there is comfort in having to be responsible for less in the short-run, there are too many unintended long term consequences.

Bitcoin is not just a currency, but a movement towards decentralization in society, government, financial systems, and thought. Bitcoin has served as a catalyst to provide power to individuals seeking to separate themselves from constricting governing bodies and failing central banks. To date, Bitcoin has been characterized as an open source project prompting discussion of the role of money in society, the danger of current banking structures, and the creative decentralized solutions to centralized problems in society today.”(Ploshay 2013, 29 October)

Ploshay highlights the problems of centralization as it gives decision making to the hands of the selected few. Then she compares the problems of Soviet Union, North Korea and contemporary policies of U.S Government while positing decentralization of Bitcoin as a solution for the problems of central decision making in terms of individual liberty. At this point the definition move behind the boundaries of financial system and conceptualized as a solution for society altogether. Here the

sphere of politics defined through the sphere of economics by conceptualizing sociality in terms of economics.

This description puts financial decentralization at the centre for societal change for both economics, politics, government and thought. This way the social is defined through the sphere of market. By replacing central banks and financial institutions with Bitcoin, the role of money would give power and responsibility to the individuals who would 'separate' themselves from the governing bodies. This separation also implies the thought of anti-government which conceptualizes decentralization in an opposition to centralization, not a compliment to it. Also critics toward the central planning and socialist countries are parallel to the works of Austrian School of Economics where competition between entrepreneurs for consumer demand would lead to better society for all. (By stating 'a common good' for society these theories implies a moral ground which will be inquired more in the corruption section of this thesis)

In the theories of the Austrian School rationale of market competition is defined through the individuals' knowledge of market, self-interest of the individuals and their coordination (Hayek 1945). Hayek defines the problem of economic decentralization with positing a simple question: Who do the planning? According to Hayek Central planning is the opposite of competition. Economic competition means here is decentralized planning with many separate actors. Here in this definition centralization comes with monopoly, and decentralization comes with private entrepreneurs' competition. In the texts of Bitcoin decentralization generally used against the state monopoly and central banks' control over issuing money. Bitcoin as private money enables a ground for competition and entrepreneurship with private enterprises. On Hayek's decision making process, Barry (1982) states that,

“In his description of a self-regulating system Hayek's major achievement has been to show that the advantages of decentralized decision-making in a market stem from the fact that this is the only device that man has discovered for coping with the universal facts of ignorance and uncertainty. It is because the social world does not consist of physical objects governed by simple laws of causality, but is a 'kaleidic' world inhabited by individuals with minds,

whose the inner recesses are inaccessible to the external observer, that knowledge is not 'fixed' and available to a single person or institution.”(Barry 1982)

According to Barry the problem of society and economy posited that individuals’ knowledge is dispersed between thousands and millions of actors. These knowledge needs to be coordinated if we want to benefit in anyway. Spontaneity of this coordination as argued would be better. In the theories of the Austrian School of Economics this coordination is conceptualized as spontaneous order. The coordination of diffused knowledge is more beneficiary in the market system, this enables us to utilize more amount of knowledge and creates more efficiency comparing to other known systems. Yet these definitions of market decentralization cannot avoid conceptualizing individual liberty in the terms of market relations.

In the texts of Bitcoin the theme of ‘no control’ and anti-government imply that the program itself, profit and non-profit the organizations authority replace the authority of state and financial institutions with the authority of free-market. In this case, entrepreneurs, foundations and crypto-currency exchange websites become the third party that the enthusiasts of Bitcoin aim to bypass.

In the case for decision making the founder and owner of many Bitcoin related companies, Eric Voorhees (2015, 23 January) makes a distinction of coercive centralization and market-based centralization. Example for coercive centralization is what we are experiencing in the financial industry and its monetary policies of central banking which is criticized in the texts of Bitcoin. Third party exchange websites such as Mt.Gox or Coinbase are in the second category, which means they are optional and give the decision making process to market. Consumers may select their preferred way of exchanging. There is still competition among these platforms and different cryptocurrencies and there are alternatives such as buying bitcoins locally and face-to-face without third party exchange websites although they are not that fast, practical or efficient so to say. Local Bitcoins website³⁷ is an example

³⁷ See Local Bitcoins website, viewed on <https://localbitcoins.com/> , on 16 September 2015, It is a peer-to-peer Bitcoin Exchange platform

where users could find buyers and sellers in their own region. Although Bitcoin's design is decentralized, most of the online wallets and currency exchange platforms are operating centrally by private companies. In this case, competition among entrepreneurs may not be a solution for bypassing authority but bringing their own. This could lead problems such as online exchange platform Mt. Gox's bankruptcy and numerous more. When users making operations in these websites, these 'new' third-parties involved and once they transferred their assets to these websites users do have little control over them if the websites collapse or companies go bankrupt.³⁸ Here the notion of 'no control' in the texts turns upside down as the users face the financial responsibility of their unfortunate ends. Withdrawal of the state in the Neoliberal governance renders individuals as producers and consumers in the market. By taking their own responsibility according to their morality individuals order their own conduct (Rose 1996; Lemke 2001). However in the events for financial responsibility individuals are subjugated to the market-laws. Ordering their own conduct according to their morality turns out to be determined through the 'morality' of the market laws.

2.3 Freedom of Political Participation

*“Government is not the solution to our problem,
government is the problem”*

–Ronald Reagan

In the texts of Bitcoin decentralization used against centralization. Imply both the underlying technology of Blockchain and the privatization of money with profit and non-profit organizations. In the texts centralization conceptualized with the authority of central decision making. Newly proposed technology claimed that it would be the opposite. It denotes freedom from state intervention and financial intermediaries. My

³⁸ See *ibid*, He argues “When the Mt. Gox exchange platform collapsed, a lot of users were affected and lost funds. Those funds were lost either in Bitcoin or tied up in one of Mt. Gox's bank accounts. In both cases, the end user had no direct control of their funds and was not able to rectify the situation for themselves without outside help.”

aim in this section is to discuss that decentralization is not against centralization but a compliment to it unlike in the texts of Bitcoin.

Conventional use of the term in dictionaries could be a starter. Oxford dictionary defines decentralization as “The transfer of authority from central to local government” (Oxford Dictionary | Decentralization, n.d.) and “The movement of departments of a large organization away from a single administrative centre to other locations.”(Ibid) Cambridge dictionary defines decentralization as “to move the control of an organization or government from a single place to several smaller ones” (Cambridge Dictionary | Decentralization, n.d.) In this regard decentralization implies freedom from central authority.

Further explanation can be achieved with the help of global organizations definitions. Unlike its conventional use in the dictionaries and its use in the texts of Bitcoin, decentralization is defined as not in opposition to centralization. According to World Bank website, the aim for political decentralization is to give citizens and their representatives more power to contribute decision making and new formulations for policies. Political participation process would lead a better informed and developed society comparing to the ones which only lead by central national authorities. “The concept implies that the selection of representatives from local electoral jurisdictions allows citizens to know better their political representatives and allows elected officials to know better the needs and desires of their constituents”(World Bank | Political Decentralization, n.d.). This process requires constitutional reforms, pluralistic political parties, public interest groups, and strengthening legislatures.

There is no single definition of the term ‘decentralization’ or a single way of its application. Yet it is defined as a must process for democratization. According to World Bank there are different types of decentralization; political, administrative, financial and economic decentralization. There are various concepts and dimensions for decentralization and a successful decentralization must be able to coordinate these dimensions together.

“The term "decentralization" embraces a variety of concepts which must be carefully analyzed in any particular country before determining if projects or programs should support reorganization of financial, administrative, or service delivery systems. Decentralization -- the transfer of authority and responsibility for public functions from the central government to intermediate and local governments or quasi-independent government organizations and/or the private sector -- is a complex multifaceted concept. Different types of decentralization should be distinguished because they have different characteristics, policy implications, and conditions for success” (World Bank | Decentralization, n.d.).

The rationale of decentralization is defined together with political freedom and democratization.

“Much of the decentralization which has taken place in the past decade has been motivated by political concerns. For example, in Latin America, decentralization has been an essential part of the democratization process as discredited autocratic central regimes are replaced by elected governments operating under new constitutions. In Africa, the spread of multi-party political systems is creating demand for more local voice in decision making. In some countries, such as Ethiopia, decentralization has been a response to pressures from regional or ethnic groups for more control or participation in the political process. In the extreme, decentralization represents a desperate attempt to keep the country together in the face of these pressures by granting more autonomy to all localities or by forging "asymmetrical federations.”(World Bank, What, Why, and Where | Rationale for Decentralization, n.d.)

Also United Nations Development Programme (UNDP) states a participatory definition and implying democratization.

“[...] Decentralization, or decentralizing governance, refers to the restructuring or reorganization of authority so that there is a system of co-responsibility between institutions of governance at the central, regional and local levels according to the principle of subsidiarity, thus increasing the overall quality and effectiveness of the system of governance, while increasing the authority and capacities of sub-national levels. [...]Decentralization could also be expected to contribute to key elements of good governance, such as increasing people's opportunities for participation in economic, social and political decisions; assisting in developing people's capacities; and enhancing government responsiveness, transparency and accountability.” (UNDP, Decentralized Governance Programme: Strengthening Capacity for People -Centered Development, Management Development and Governance Division, Bureau for Development Policy, September 1997, p. 4)

In another UNDP document decentralization defined as complex phenomena involving many dimensions and actors.

“[...] Decentralization is a complex phenomenon involving many geographic entities, societal actors and social sectors. The geographic entities include the international, national, sub-national, and local. The societal actors include government, the private sector and civil society. The social sectors include all development themes - political, social, cultural and environmental. In designing decentralization policies and programmes it is essential to use a systems-approach encompassing these overlapping social sectors and the different requirements which each makes.[...]Decentralization is a mixture of administrative, fiscal and political functions and relationships. In the design of decentralization systems all three must be included.”(UNDP, Factors to Consider in Designing Decentralized Governance Policies and Programmes to Achieve Sustainable People -Centered Development, Management Development and Governance Division, February 1998, p. 1)

In these definitions of World Bank and UNDP decentralization is conceptualized as participatory and democratization process aiming to involve many actors from different sectors of government, public and civil society. These definitions are not opposed to centralization but a compliment to it. Direct and indirect ways for governing intermingled together. Decentralization is not anti-government but a way of governing.

In the texts of Bitcoin decentralization is defined as anti-government in opposition to centralization. Implying no-one is in control. Prominent part of the texts of Bitcoin uses the notion of decentralization both for denoting the private entrepreneurship and voluntary non-profit organizations' roles in the decision making process and also underlining technology of distributed public ledger of Bitcoin together with the use of internet infrastructure. Public ledger is an open ledger system where everyone can see simultaneous transfers between accounts without knowing the ownership of accounts.³⁹ These features showed as the transparency, openness and anonymity of Bitcoin. A technology keeps record of the transfers as a ledger instead of banks and

³⁹ See Blockchain website, viewed on <https://blockchain.info/> , on 6 March 2017.

financial institutions. Replacing these institutions with transparent technology of network of computers argued as decentralized.

In the texts of Bitcoin, notions of decentralization and centralization are used in opposition. The antagonistic conceptualization of centralization and decentralization, state versus freedom offer limited analysis for approaching the complex relations between autonomous individuals, private entrepreneurships and both state and non-state organizations. Approaching the notion of freedom as not against governance but a way for governing would be helpful for the analysis. Conceptualizing freedom as something against the state would be misleading. This antagonism conceptualizes freedom as the absence of coercion and domination where free wills of a group or a person could enable themselves (Rose 2004, p. 1). If the notion of decentralization in the texts considered as anti-statist or as an alternative to or even against centralization analysis would be inadequate.

“To be governed through our freedom: the very idea seems paradoxical. Freedom appears, almost by definition, to be the antithesis of government: freedom is understood in terms of the act of liberation from bondage or slavery, the condition of existence in liberty, the right of the individual to act in any desired way without restraint, the power to do as one likes.” (ibid, p. 62)

Spontaneous arrangement of privatization and decentralization should be taken together with the notion of governance as Rose pointed out that we are governed through our freedom, freedom of free enterprise (ibid, pp. 61-66).

Decentralization should be taken neither as an alternative nor against centralization but as a complement. In this mode of analysis state is taken as a political actor among many. Governance refers to the outcome of state and non-state, profit and non-profit political actors' interrelations and interdependencies (ibid, pp. 16-17) as also pointed out in the reports of the World Bank and UNDP unlike in the texts of Bitcoin.

I take the case of Bitcoin in this light for my analysis. In the case of Bitcoin the actors are; Profit actors such as cryptocurrency exchange services⁴⁰, eWallets⁴¹, ATM services⁴² and mining companies⁴³, non-profit organizations such as Bitcoin foundation⁴⁴ and many others around the world⁴⁵, state organizations such as The Financial Crimes Enforcement⁴⁶, European Banking Authority⁴⁷, IMF⁴⁸ and U.K Treasury⁴⁹ and many others published reports and considering the legal status, regulation and the future of cryptocurrencies. I take these organizations interrelations as an example for Neoliberal Governance claimed as decentralized. Bitcoin is not against governance or ‘anti-state’ or controlled by ‘no one’ but aims to replace central banks and financial institutions authority with the profit and non-profit organizations authority designed according to the logic of the market for the benefit of issuing a ‘better’ financial system with a new currency.

⁴⁰ See Crypto Coin Charts | Cryptocurrency Exchanges/Markets List , viewed on <http://www.cryptocoincharts.info/markets/info> , on 5 January 2015

⁴¹ See Bitcoin.org website |Choose Your Wallet, viewed on <https://bitcoin.org/en/choose-your-wallet> , on 5 January 2015

⁴² See Money Wiki |Alternative Currencies:BTM, viewed on <http://themoneywiki.com/wiki/alternative-currencies-btm-bitcoin-atms> , on 5 January 2015

⁴³ See Price, R., 2015, 13 August, The 21 companies that control bitcoin, viewed on <http://uk.businessinsider.com/bitcoin-pools-miners-ranked-2015-7> , on 26 November 2015

⁴⁴ See Bitcoin Foundation website, viewed on <https://bitcoinfoundation.org/> , on 24 February 2015

⁴⁵ See Bitcoin Wiki website | List of Bitcoin Non-profits Around the World, viewed on https://en.bitcoin.it/wiki/List_of_Bitcoin_non-profits_around_the_world , on 5 January 2015

⁴⁶ See The Financial Crimes Enforcement Network report Application of FinCEN’s Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (March 18, 2013) , retrieved from http://fincen.gov/statutes_regs/guidance/html/FIN-2013-G001.html , on 27 November 2014

⁴⁷ See EBA warns consumers on virtual currencies, 13 December 2014, retrieved from <http://www.eba.europa.eu/-/eba-warns-consumers-on-virtual-currencies> , on 28 November 2014

⁴⁸ See IMF Staff Discussion Note, Virtual Currencies and Beyond: Initial Considerations, January 2016, viewed on <http://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf> , on 30 January 2016

⁴⁹ See Gov.UK, Digital currencies: call for information, viewed on <https://www.gov.uk/government/consultations/digital-currencies-call-for-information/digital-currencies-call-for-information#risks-of-digital-currencies> , on 5 November 2015

Profit or non-profit all these organizations are interrelated through economics of Bitcoin. Definition of governance comes through the scope of market relations and its economics. In the texts of Bitcoin democratization is used together with privatization of money as entrepreneur Ed Moy states it is the re-democratization of money “Lack of technological innovation has helped protect government’s monopoly on the creation of money for 2,700 years. Until now. Bitcoin and other cryptocurrencies are the technological leap that puts the creation of money and the determination of its value back in to the hands of individuals and the private sector” (Moy 2015, 6 November).

Ultimately in the texts of Bitcoin freedom is conceptualized through market terms with the help of a new ‘advanced’ technology as a solution for posited problems. These problems posited under the theme of central decision making which do not only imply economics of market sphere but politics on societal level as well. In these formulations technology and market laws are taken as objective justifier for market relations and through more technology and decentralization society would become more free. In this case the claims of democratization of money posit democratized society under the logic of market laws.

2.4 Freedom on the basis of Neoliberal ‘Pure Market’

In the first years much fame of Bitcoin in the texts came through its illegal uses. Discussions of regulation free ‘pure market’ and its illegal effects taken much space in the news and the blogosphere⁵⁰. In time these discussions lead the way for regulations of Bitcoin by the states and their financial institutions. Allegedly ‘pure market’ of cryptocurrencies ended up as an extension for the existing financial system. In this section, following Lemke (2001) and Rose (2004), I aim to discuss that withdrawal of the state in the free-market is not the absence of governance but way of governing by rendering individuals as entrepreneurs with profit and non-profit organizations and by intervening the market with regulations.

⁵⁰ See Oxford Dictionary | Blogosphere, viewed <https://en.oxforddictionaries.com/definition/blogosphere>, on 4 September 2017, “Blogs considered collectively with their writers and readers as a distinct online network.”

Bitcoin has been a hot topic in the press because of its anonymity and transparency which can be used for both money laundering and anti-money laundering operations. Numerous news take place in the press about money laundering operations (Buntinx 2015, 1 October; Ghosh 2015, 23 December; Buntinx 2016, 23 February) as well as anti money laundering operations (Williams-Grut 2015, 18 January; Prisco 2015, 23 January).

In its early phases prominent part of the reputation of Bitcoin came from its use in illegal activities via namely the website Silkroad. Arguments in the media marginalized by press made Bitcoin quite famous. News can be considered as its discursive politics to make it known by the public because of its extremities make it highly interesting topic which could be considered as a marketing strategy. Discussions of being in the ‘gray area’ of unregulated territory can be generalized under two camps: People who criticize its potential for illegal use argue to ban Bitcoin and those who support it because of its libertarian motives for unhampered ‘pure market’.

One of the most accurate definition of Bitcoin in the case for illegality is that it is an “[...] online equivalent of a Brown paper bag of cash [...]” (Chen 2011, 6 January), a digital economy outside of the law. Bitcoin give its users anonymity in the market and create a market which is ‘freely’ flowing across the borders and across accounts. It is quite difficult to ban Bitcoin because of decentralized and distributed structure of the system. Even if a country bans Bitcoin, it will push Bitcoin market to underground markets (Clark 2013, p.5). Yet these ‘fraudulent’ activities could easily be done with fiat money. What is new here is that Bitcoin enable people to do these activities online and could be argued that it brings efficiency as Chen (2011) states that it is safer than face-to-face meetings.

There have been discussions of banning Bitcoin because of illegal or fraudulent activities and also because of its unstable market prices, “West Virginia Democratic Sen. Joe Manchin intends to seek a ban on the popular digital crypto-currency

Bitcoin, citing it as both “unregulated and unstable” in a letter to federal regulators” (Macri 2015, 26 February). Manchin states that right now the currency is unregulated and used for many illicit activities, also unstable and risky for U.S economy because of its price volatility, “Manchin described Bitcoin as “a haven for individuals to buy black market items,” citing the notorious “Silk Road” black market site where users could purchase drugs, guns and other illegal elements with Bitcoin until the FBI closed it down and confiscated more than \$3 million-worth of the crypto-currency in October 2013”(Ibid). Yet on November the successor of closed website Silkroad 2.0 meets its users and in less than two months it has already shut down and FBI made arrestments of multiple administers (Greenberg 2013, 20 December). Following the closure of Silkroad 2.0, on January 2015 a website called Silkroad Reloaded launched for similar purposes with improvements in the system for better operation and it is highlighted and related with the libertarian motivations including of issuing money, and also many other activities could be considered as illegal (Joseph Cox 2015, 11 January).⁵¹

Discussions of unstable market prices concentrated on whether Bitcoin is another financial bubble or a ponzi scheme.⁵² Although they might be set up, ponzis maybe

⁵¹ See Cox, J., 11 January 2015, 'Silk Road Reloaded' Just Launched on a Network More Secret than Tor, viewed on <http://motherboard.vice.com/read/silk-road-reloaded-i2p> , on 3 November 2015. “The catalog lists many of the things we've come to expect from an online marketplace, including drugs, counterfeit money and IDs, hacking tools, and fake clothing. Notably absent are weapons and stolen credit card details, something which some Tor sites, such as Evolution, now sell in abundance. This lack of weapons and stolen data may be due to the site owner's apparent political beliefs: it appears that the site owners subscribe to the same libertarian motivations that inspired the original Silk Road. “Who are we? Ones who care about true freedom, self-ownership and self-possession. Yes believe it or not you own yourself,” the site reads. “What exactly does this mean? Many things but, first and foremost that we nor anyone else has the right/privilege to tell you what to do with your person, on any level except/unless you cause harm to someone's property/person. [...] We created this to allow the most basic of human activities to occur unimpeded, that being trade. It's not only a major disruption of progress but, it is an interference to control someone to the degree that their free will is compromised. We may not be able to stop this but, we certainly won't contribute to it. “Enjoy the site.””

⁵² See Basu, K, Ponzis:The Science and Mystique of a Class of Financial Frauds, 2014, World Bank Group, Policy Research Working Paper, viewed on <http://documents.worldbank.org/curated/en/660611468148791146/pdf/WPS6967.pdf> , on 3 November 2015, Ponzis are a pyramid schemes set up on purpose of “[...] fraudulent scheme in which people are encouraged to invest and then the Ponzi entrepreneur, instead of using the money on something productive, uses the money received from new investors to pay interest to earlier investors,

also occur without purpose in market mechanisms. Ponzi might develop by simply effecting investors' beliefs to create financial bubbles. Ponzi eventually bust up as financial bubbles to create economic crisis. If these ponzi become too big they sometimes become "too big to fail" for governments who try to save them with tax payers money, "If a big investment company fails, the collateral damage on ordinary citizens is so large that governments have reason to step in to save the company"(Ibid, p.12). These situations inevitably lead governments' intervention to market. Contrary to claims of Bitcoin's potential for a pyramid scheme it does not fit to ponzi definition. But "Trouble started when people began speculating that the value of Bitcoin would rise, thereby raising the demand for Bitcoin and making the value-rise a self-fulfilling prophesy. In other words, what we witnessed recently in the Bitcoin phenomenon fits the standard definition of a speculative bubble" (Ibid, p.7). Bitcoin is not a 'deliberate ponzi' but its main value comes from its lessons for central banks and regulations for decreasing efficiency.

Yet considering it as a financial bubble will take us back to where it starts that the very beginning of the texts of Bitcoin is founded upon criticizing system's failures of financial meltdowns yet ended as another financial bubble for its fragile fluctuation of market prices. But it can be argued that these ups and downs are due to its early stages and overcome as the market developed and the prices became more stable.

Whether for money laundering, drug markets or a financial bubble, marginalization of Bitcoin for its potential for illegal use could be considered as its discursive politics to gain more reputation. It can be easily argued that what can be done with bitcoins can easily be done with cash already. What is new here, and important for this thesis, is that it makes financial transactions faster, cheaper and anonymous: rational efficiency for the free-market.

However potential of illicit use and fraud bring the question of regulation in time. Discussions on regulation take us back to the old traditional line of political economy

with the debt building up like an inverted pyramid, which is why such schemes are often known as pyramid schemes", p. 2

that whether market should be regulated or not: the question of state intervention versus unhampered ‘pure market’. The dichotomy of state versus freedom draws the line in these discussions again. But this time it is around the law and order versus chaos in the case for regulation defenders, and freedom versus totalitarianism in the case for Bitcoin adherents with libertarian motives.

Considering its fast development, popularity, its future and potential for illegal and illicit activities, different countries and international organizations such as IMF, European Banking Authority (EBA) and European Free Trade Association (EFTA) followed different approaches and discussed whether using Bitcoin is legal or not or whether it should be regulated by governments and if the answer would be yes, how? (Tanzarian, 2014, 6 June; Hajdarbegovic 2014, 3 June; 2014, 6 August; 2014, 3 September; Parker, 22 January 2016; 30 January 2016).

Different countries make different legal definitions, regulations or started to consider making regulations for cryptocurrencies. Bitlegal website⁵³ indexes the list of legal situation of Bitcoin in the world showing which countries are hostile, or permissive. General tendency of western liberal democracies are permissive and affirmative. As I argue in this thesis that Bitcoin and other crypto-currencies are not against state and financial institutions but an extension of the market with following the same underlying logic of market efficiency.

In the United States of America laws apply at two levels, federal government and state. On the federal level it is legal to use, own, mine or make purchases with Bitcoin yet it is under federal regulations.⁵⁴ State level regulations define and license the use of cryptocurrencies and cryptocurrency related businesses.⁵⁵ There are five

⁵³ Bitlegal website | Index , viewed on <http://bitlegal.io/list.php> , on 17 May 2017.

⁵⁴ Bitlegal website | World, United States of America, viewed on <http://map.bitlegal.io/nation/US.php> , on 17 May 2017

⁵⁵ For Example see California Assembly Bill No. 1326, An act to add Division 11 (commencing with Section 26000) to the Financial Code, relating to virtual currency, viewed on http://www.leginfo.ca.gov/pub/15-16/bill/asm/ab_1301-1350/ab_1326_bill_20150601_amended_asm_v97.htm , on 17 May 2017.

main regulators on federal level in the United States: The Financial Crimes Enforcement Network, The Commodity Futures Trading Commission, The Securities Exchange Commission and The Legislative Branch and the Internal Revenue Service. The Commodity Futures Trading Commission and The Securities Exchange Commission have no regulations for Bitcoin yet. The Legislative branch has no regulations either but they held a hearing for threats Bitcoin might bring. The Internal Revenue Service⁵⁶ defined bitcoin as a property and underlined that any gain or profit should be taxed as capital gain or ordinary income under the existing laws. Finally The Financial Crimes Enforcement Network states that bitcoin can be used for exchange but has no legal status in any jurisdiction leaving it at the gray area yet it is still under the existing laws in case of illegal activity or fraud (Tanzarian 2014, June 6). According to United States Government Accountability Office's Report to the Committee on Homeland Security and Governmental Affairs, U.S. Senate: Virtual Currencies Emerging Regulatory, Law Enforcement, and Consumer Protection Challenges, (May 2014), Bitcoin use is not illegal unless it is used for illegal activity such as fraud, money laundering or buying illicit goods. Yet with the emergence of virtual currencies there have been numerous questions raised concerning investors and consumers protection. Also The Financial Crimes Enforcement Network report Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies⁵⁷ (March 18, 2013) made a similar statement and at the same time accepting that it is at least a currency

Also see New York State Department of Financial Services New York Codes, Rules and Regulations Title 23. Department of Financial Services Chapter I. Regulations of the Superintendent of Financial Services PART 200. Virtual Currencies, viewed on <http://www.dfs.ny.gov/legal/regulations/adoptions/dfsp200t.pdf> , on 17 May 2017.

⁵⁶ See IRS Notice 2014-21, retrieved from http://irs.gov/pub/irs-drop/n-14-21.pdf?utm_source=3.31.2014+Tax+Alert&utm_campaign=3.31.14+Tax+Alert&utm_medium=email , on November 27, 2014

⁵⁷ See The Financial Crimes Enforcement Network report Application of FinCEN's Regulations to Persons Administering, Exchanging, or Using Virtual Currencies (March 18, 2013) , retrieved from http://fincen.gov/statutes_regs/guidance/html/FIN-2013-G001.html , on 27 November 2014, p. 1 ft. 2, "FinCEN's regulations define "person" as "an individual, a corporation, a partnership, a trust or estate, a joint stock company, an association, a syndicate, joint venture, or other unincorporated organization or group, an Indian Tribe (as that term is defined in the Indian Gaming Regulatory Act), and all entities cognizable as legal personalities."

substitute or equivalent if not a legal tender but could be used for illicit activities like any other.

In United Kingdom, U.K Government's Science Office published a detailed report on the blockchain technology underlying Bitcoin for how it can transform both public and private sector. Scientific advisor to Her Majesty's Government Sir Mark Walport stated that “Distributed ledger technologies have the potential to help governments to collect taxes, deliver benefits, issue passports, record land registries, assure the supply chain of goods and generally ensure the integrity of government records and services”⁵⁸ and also it “[...] provides the framework for government to reduce fraud, corruption, error and the cost of paper-intensive processes. It has the potential to redefine the relationship between government and the citizen in terms of data sharing, transparency and trust. It has similar possibilities for the private sector” (ibid.).

Financial Conduct Authority has announced a new initiative to help regulating the Bitcoin business. Also U.K Chancellor George Osborne announced a new initiative for discovering the potential of cryptocurrencies in the U.K’s economy. The results will pave the way for a possible regulation of cryptocurrencies. More than 150 startups and entrepreneurs have backed and urged a manifesto for U.K FinTech industry to initiate Bitcoin friendly legislations (Hajdarbegovic 2014, 3 June; 2014, 6 August; 2014, 3 September). U.K treasury called for information to measure risks and benefits of the new technology. ‘Call for Information’ asks for organizations, entrepreneurs and individuals to submit their comments for numerous issues including both benefits and risks of digital currencies for developing future regulations and advancements of the sector. Also asks questions for potential illicit uses.⁵⁹

⁵⁸See Government Office for Science, Distributed Ledger Technology: beyond block chain, A report by the UK Government Chief Scientific Adviser, 19 January 2016, viewed on https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf , on 30 January 2016

⁵⁹ See Gov.UK, Digital currencies: call for information, viewed on <https://www.gov.uk/government/consultations/digital-currencies-call-for-information/digital-currencies-call-for-information#risks-of-digital-currencies> , on 5 November 2015

IMF also presented a report on the panel “Transformation of Finance” at the World Economic Forum in Davos, Switzerland (Parker 2016, 22 January). Report presents an overview of virtual currencies, how they work and how they can be defined. How they could fit to monetary systems with the questions of taxation, consumer protection and capital flow management.⁶⁰

In European Union and European Free Trade Association (EFTA) there are two levels for regulations. European Banking Authority published a warning (2013, December 31), saying that “The EBA also reminded that as transactions in virtual currency provide a high degree of anonymity, they may be misused for criminal activities, including money laundering. This misuse could lead law enforcement agencies to close exchange platforms at short notice and prevent consumers from accessing or retrieving any funds that the platforms may be holding for them.”⁶¹ Report also stating that users also keep in mind that the countries they are living in have specific regulations for taxation.

European Parliament, the legislative body of Europe held a meeting for discussing the future of Bitcoin and virtual currencies for the first time. The European Parliament's Committee on Economic and Monetary Affairs held the meeting on “The questions ranged in topic, with a vocal majority of them being on the subjects of tax evasion, money laundering, and regulation. Throughout the whole meeting, many supportive comments were made, with some advocating the use and protection of virtual currencies” (Parker, 30 January 2016).

Lastly starting from the beginning of the fiscal year in April 2017, Japan has confirmed bitcoin to be accepted as a form of money along the other mainstream fiat

⁶⁰ See IMF Staff Discussion Note, Virtual Currencies and Beyond: Initial Considerations, January 2016, viewed on <http://www.imf.org/external/pubs/ft/sdn/2016/sdn1603.pdf> , on 30 January 2016

⁶¹ See EBA warns consumers on virtual currencies, 13 December 2014, retrieved from <http://www.eba.europa.eu/-/eba-warns-consumers-on-virtual-currencies> , on 28 November 2014

currencies as a legal payment method (Gautham 2017, April 2; Keirns 2017, March 31). According to Bitcoin enthusiast, engineer and entrepreneur Gautham,

“With the new law’s implementation, Bitcoin exchanges will also come under additional regulatory scrutiny. The recognition of cryptocurrency as a legal tender also means the applicability of regulations governing banks and financial institutions to cryptocurrency exchange platforms. They will be required to comply with strict anti-money laundering (AML) and Know Your Customer (KYC) requirements, along with annual audits. Other requirements include meeting the stated capital and cyber security requirements to ensure consumer protection.

The recognition of Bitcoin and other cryptocurrencies as legal payment instruments is good news for the global cryptocurrency ecosystem. Adoption of cryptocurrency is expected to increase among people, which will, in turn, drive demand and price.” (Gautham 2017, April 2)

Legislations from financial authorities increase the market prices positively as Japan and Russia moves to regulate the currency which is a strong indicator for the effects of guarantorship of states in the market (Garber 2017, April 3; Kharpal 2017, April 12).

Considering the regulations and legislations above the so called pure market ‘revolution’ of cryptocurrencies became a free-market illusion by becoming an extension for the existing market and financial institutions.⁶² Regarding the approaches of the different countries and authorities above, it can be argued that their perspective is not negative or restrictive but permissive unless it is used for illicit purposes. Allegedly pure market of crypto-currencies is under taxation as general income. Also many public offices around the world held conferences and call for information to entrepreneurs and experts for making Bitcoin friendly legislations. States ask for information from counter-experts to consider the now and the future of cryptocurrencies together with profit and non- profit organizations interrelations parallel to the operation of advanced liberalism. Responses of the neoliberal governance open a door which enable individuals freely pursue their own ends even if they want to print their own money. Considering the permissive responses of the

⁶² Especially regarding upcoming news that central banks are working on creating their own cryptocurrencies, territorial freedom of Bitcoin might lose its privilege in the future (Castillo 2016, 6 June; Dhaliwal 2016, 17 August; Popper 2016, 11 October).

different states, my analysis is that the dichotomy of freedom versus state and 'pure market' in the texts disappears and the concept of we are governed through our freedom subjected to the Neoliberal governance become present.

CHAPTER III

ON THE QUESTION OF COMPETITION

Underpinning rationality of the texts of Bitcoin and the Austrian School has strong parallelism as I argued in the first chapter. Notion of freedom is defined in the absence of the state and intermediary institutions for achieving desirable end of unhampered, spontaneous ‘pure market’ relations. Yet as I argued above that absence of government (absence of the state and intermediary institutions) does not mean less governance. Privatization of money is regulated in the free-market with individuals rendered as entrepreneurs and consumers taking financial responsibility which defines notion of freedom in market terms. Freedom of the individuals in the market is defined as freedom of enterprise (for entrepreneurs) and freedom of choice (for consumers). Neoliberal governance operates through this freedom of interrelations of profit and non-profit organizations’ relations on the ‘framework’ of market economics.

In the texts of Bitcoin individuals are rendered as entrepreneurs for issuing money instead of state institutions and banks, based on their individual cost-benefit analyses and the criteria of competition. Rose (1996) proposes the term ‘advanced liberal’ to describe this expertise contrary to state officials’ expertise in bureaucracies. In advanced liberalism counter expertise of non-state organizations and individuals connects experts from different domains. Advanced liberal rule depends on this counter expertise, “It seeks to degovernmentalize the State and to de-statize practices of government, to detach the substantive authority of expertise from the apparatuses of political rule, relocating experts within a market governed by the rationalities of competition, accountability and consumer demand” (Rose 1996, p.41). Counter expertise and their interrelations with institutions can be posited in the market of crypto-currencies. I take the interrelations of profit, non-profit, state and non-state organizations as a case for neoliberal sociality based on the freedom of

competitiveness of individuals rendered as entrepreneurs and consumers. In this chapter I analyze the texts of Bitcoin in accordance with the logic of competition underpinning.⁶³

For Hayek question of competition is not a natural given as in the works of early liberals, it is a question of rationality and organizing the rationality. According to Hayek (2012) the ‘true individualism’⁶⁴ based on imperfect and limited rationality which only governs the action of individuals partially to some extends. But for the pseudo-individualism (allegedly socialism), reason is always available and equal for all the individuals. “The antirationalistic approach, which regards man not as a highly rational and intelligent but as a very irrational and fallible being, whose individual errors are corrected only in the course of a social process, and which aims at making the best of a very imperfect material[...].” (Ibid, p.10). One of the most fundamental aspects of British/Scottish individualism is the anti-rationalistic thinking regards human mind as irrational and fallible. Individual errors can only be corrected through social processes and this social process operates on the ‘framework’ of market relations. As Hayek (1945) defines the problem of economic decentralization with positing a simple question: Who do the planning? Central planning is the opposite of competition. Decentralization comes with private entrepreneurs’ and individuals’ competition. In the texts of Bitcoin decentralization generally used against the state monopoly and banks control over issuing money. Private money

⁶³ To sum up the rationality of Austrian School on some key themes which I use to read the texts of Bitcoin through:

- Limitation of government opens the delimitation of the sphere of responsibility which makes individuals free,
- The principle of having no principle for control with general principles: objective market laws,
- Against comprehensive economic planning: No state interference to market. Design for competitive market relations is the equal inequality for all.
- Non-interference to market (withdrawal of the state) enables competition between self-responsible individuals as entrepreneurs. Through the process of competition between entrepreneurs best products will be produced for consumers. Individuals rendered as both entrepreneurs and consumers.

⁶⁴ See Hayek 2012, p. 8, What Hayek calls ‘true’ individualism is based on the idea of the limitations of human mind, “[...]an attitude of humility toward the impersonal and anonymous social processes by which individuals help to create things greater than they know[...], on the other hand pseudo-individualism is “[...] the product of an exaggerated belief in the powers of individual reason and of a consequent contempt for anything which has not been consciously designed by it or is not fully intelligible to it.”

enables a ground for competition and entrepreneurship with private enterprises.

Barry (1982) states that,

“In his description of a self-regulating system Hayek's major achievement has been to show that the advantages of decentralized decision-making in a market stem from the fact that this is the only device that man has discovered for coping with the universal facts of ignorance and uncertainty. It is because the social world does not consist of physical objects governed by simple laws of causality, but is a 'kaleidic' world inhabited by individuals with minds, whose the inner recesses are inaccessible to the external observer, that knowledge is not 'fixed' and available to a single person or institution.”⁶⁵

Following Hayek, Barry argues that knowledge is dispersed between thousands and millions of actors. These knowledge needs to be co-ordinated if we want to benefit in anyway. The co-ordination of diffused knowledge is more beneficiary in the market system, this enables us to utilize more amount of knowledge and creates more efficiency comparing to other known systems (Ibid).⁶⁶ Yet these definitions of market decentralization cannot avoid conceptualizing individual liberty in the terms of market relations (Regarding the case of the thesis correction of the errors comes with competition in the free-market). In lectures on the Birth of Biopolitics Foucault (2008) posits that from 18th century to today almost all schools of liberal though accepted competition as the essential characteristic of liberalism.

“Now for the neo-liberals, the most important thing about the market is not exchange, that kind of original and fictional situation imagined by eighteenth century liberal economists. The essential thing of the market is elsewhere; it is competition. In this, moreover, the neo-liberals only follow a development of liberal thought, of liberal doctrine and theory, in the nineteenth century. Practically since the end of the nineteenth century, more or less all liberal theory has accepted that the most important thing about the market is competition, that is to say, not equivalence but on the contrary inequality. It is the problem of competition and monopoly, much more than that of value and equivalence, that forms the essential armature of a theory of the market. On

⁶⁵ See Norman Barry, "The Tradition of Spontaneous Order" | Knowledge and Society , retrieved from <http://www.econlib.org/library/Essays/LtrLbrty/bryTSO2.html#xx38> , on 30 January 2015

⁶⁶ See Ibid, “For Adam Smith and his followers, the market and law together co-ordinate self-interested agents’ actions to produce an unintentional beneficiary outcome, whereas Hayek says they are the key elements of co-ordinating “the actions of necessarily ignorant people.” The theory of Spontaneous Order does not base its truth on the egoistic behavior rationale of the classical economic theory. Because the problem of universal co-ordination problems remain whether the people are selfish or not in their impulses. However he states that we should either not ignore the self-interest factor in the economic nexus which held together independent parts as an economic system.”

this point therefore the ordoliberalists do not depart in any way from the historical development of liberal thought. They take up this classical conception and the principle that competition, and only competition, can ensure economic rationality. How does it ensure economic rationality? Well, it ensures it through the formation of prices which, precisely to the extent that there is full and complete competition, can measure economic magnitudes and thus regulate choices.” (Foucault 2008, pp. 118-119)

Although he argues that ordoliberalists break this tradition by stating competition is not a natural given they still see competition as a fundamental element of liberalism. Yet laissez-faire cannot simply sustain itself without the help of the state. State’s active policy for sustaining the free market is indispensable. Regulations and legislations are tools for direct intervention for founding and sustaining free market. “Pure competition must and can only be an objective, an objective thus presupposing an indefinitely active policy. Competition is therefore an historical objective of governmental art and not a natural given that must be respected.”(Ibid, p. 120)

William Davies also points that competition is the essential normative characteristic of early neoliberal liberal thinkers such as Hayek and Mises (Davies 2014, p.38). Individual errors can only be corrected through competitive process. Rationality of open ended design (or rather irrationality or non-design) of market enable competitors to achieve open ended ‘free’ spontaneous market relations. Parallel to the rationality of Austrian neoliberals’ monetary theories, the texts of Bitcoin claim that best money as a product for consumers will be produced with competitive process in the market.

In this third chapter of my thesis called ‘On the Question of Competition’ I will first describe the agents of the cryptocurrency market: producers (miners), entrepreneurs, NGOs, consumers and the dynamics of their relations inbetween.

In the following section called ‘Moral Foundation of Competition’ I will discuss how the ‘neutral’ moral stand of the free market and texts of cryptocurrencies imply their own morality of Market Laws and conceptualize inefficiency as immoral and efficiency as moral ultimately.

Lastly in the third section of this chapter ‘Politics and Governance of Competition’, I will take key elements of cryptocurrency market such as ‘trust’ and ‘transparency’ which are posited in the texts as antidotes for inefficiencies of the former institutions for to discuss how the politics and governance of competition in the market operates.

3.1 Agents and Dynamics of Competition

In this section first I posit the agents in the cryptocurrency market and then explain the dynamics of their relations. Similar to every other market, there are producers (miners), intermediaries (middleman) and consumers in the cryptocurrency market as well. Producers of the coins are called ‘miners’ and their issuing operations are called ‘mining’. They use wide range of different hardware for mining: Computer CPUs⁶⁷, GPUs⁶⁸ and specialized hardware called ASICs⁶⁹ for the necessary calculations of the network. These operations are for sustaining the Bitcoin network for making transactions available between wallets of the users with keeping a ledger. The key point in the mining process is that it both keeps the network up and alive, and also produces new coins. This is why the cryptocurrency networks are both payment systems and currencies. Bitcoin program itself is coded in a way to issue new coins for to payback these miners’ operations for sustaining the network. Program is coded in a way to determine which miner will earn how much coin in return for its service. The more processing power miners give to the network more coins they will earn. There are limited numbers of Bitcoins coded in the program (21 Millions) which put miners in a minting race for earning more.

Other than main producers called miners there are also entrepreneurs for intermediary operations such as cryptocurrency exchange websites (for exchanging cryptocurrencies in return for other cryptocurrencies or fiat money such as Dollars, Euros etc.), ATM companies (for buying or selling cryptocurrencies with fiat money), Debit Card companies (works similar to Credit Cards instead of fiat money they are using

⁶⁷ Central Processing Units

⁶⁸ Graphics Processing Units

⁶⁹ Application Specific Integrated Circuit (ASIC): Mining gear which are specifically built for cryptocurrency mining.

Bitcoin account for transactions) and lastly mining pools for miners to share the burden of their hardware for mining operations for better income. These services are all available for consumers in return for a fee. They also compete between each other for to gain a better share of the market. The texts of cryptocurrencies highlight that they are bypassing third parties with their program, yet the need for exchange websites and other implementations for existing market inevitably turn this claim upside down. These services for various operations become the new intermediaries in the market.

There are NGOs such as Bitcoin Foundation which operates like any other civil society organization in any other sector for enhancing and development of the market. They held conferences; set new standards, set new goals, gather feedbacks from producers, entrepreneurs and users for improving the sector and their organization, and of course the stability of their currency and its price.

And lastly there are users of the cryptocurrencies who buy and sell them as products or make transactions for shopping or investment. They are the ultimate consumer/end user of this market.

Dynamics of the competition in the cryptocurrency market has two levels. First one is the competition between different cryptocurrencies as products for consumers. There is also competition between intermediaries (third parties) offering their services via their websites as online exchanges or applications which make the system more secure and practical or mining pools which offer their services in return for a price.⁷⁰

⁷⁰ Cryptocurrency mining pools make users come together to bind their equipment's processing powers to share the burden of mining process and also share their rewards in return. These pools are also private entrepreneurs which offer their services to their users and take some percentage from their income or offer these services in return for a price. For a basic list of mining pools and their comparison see Bitcoin Wiki | Comparison of Mining Pools, viewed on https://en.bitcoin.it/wiki/Comparison_of_mining_pools , on 21 October 2015

The second level of the competition is among the producers called miners for the production of coins.⁷¹ New coins are created through highly competitive process called 'mining'. Users gain bitcoins in return of their services to the network. The necessary calculations for transaction process distributed all over the network. Miners (people who use computer for mining and their gears are both called miner) in this network make necessary calculations for authenticating every transaction and also keeping a record of every transaction took place since the beginning of the system as a public ledger which everyone can see.⁷² Through using their hardware users share processing power of their equipment for calculating transactions of the network, at the same time gain bitcoins as an exchange to their services in return. This process is called mining to illustrate an analogy for minting minerals, which resembles the similarity to gold coins for to denote their limited quantity and their historically proven stability of value.

There are vital components of Bitcoin which are the resources people use to create and sustain the network: Electricity, processing power of special hardware and labor to keep the hardware running. The mining process designed in Bitcoin program let miners to create bitcoins at a fixed rate which is predictable and at a decreasing rate. "Bitcoins are created at a decreasing and predictable rate. The number of new bitcoins created each year is automatically halved over time until bitcoin issuance halts completely with a total of 21 million bitcoins in existence" (Bitcoin Foundation | Economy, How are bitcoins created?, n.d.). Since there is a fixed rate of bitcoins to

⁷¹ This feature also makes Bitcoin different than paying intermediaries such as PayPal or Western Union.

⁷² See "When perhaps the real problem is money itself": the practical materiality of Bitcoin, Bill Mauer, Taylor C. Nelms and Lana Swartz, *Social Semiotics*, 2013, Vol. 23, No. 2, 261-277, p. 264 "What makes Bitcoin different as an online form of payment is how it distributes the work of verifying transactions. Bitcoin transactions are transmitted to every node in the network, creating a database of all approved transactions to date what one blogger suggests "can be thought of as a giant, shared accounting ledger" (Lee 2011). At certain intervals (about every ten minutes), all of the transactions during the preceding period are bundled together into a "block"; these blocks are then linked to form a chain. Within each block is a cryptographic puzzle, which, when solved, validates the chain as a whole. The puzzle can only be solved through trial and error; the process is dubbed, in recognition of the brute calculating strength needed to crack the code, "forced work." The mathematics of the puzzle ensures that while it is difficult to solve, it is not difficult to verify. In this way, each node connected to the Bitcoin network lends its computing power to the work of authenticating the system's transaction logs, confirming one block at a time that all Bitcoin transactions follow the rules and the system remains counterfeit-free."

mine at a given time that coded in the program, more miners in the network make it more difficult to mine new bitcoins. There is a difficulty level of the system which increases competition and difficulty automatically to make it harder to profit from mining process according to the miner number in the network at a given time (Bitcoin Foundation | Economy, How are bitcoins created?, n.d.). This process inevitably make miners have to invest on or invent better and faster (also needles to say expensive) hardware to keep up the competition for their profits. This creates a competition in mining process for turning it to a mining race between miners to get the biggest share.

Mining is very expensive process. Difficulty in the mining process is a measure for the network to determine how likely for a miner to create a new bitcoin. Satoshi Nakamoto stated this process will inevitably become more difficult as the new miners involved in the business. Back in 2008 Nakamoto states in a mailing list that,

“Only people trying to create new coins would need to run network nodes. At first, most users would run network nodes, but as the network grows beyond a certain point, it would be left more and more to specialists with server farms of specialized hardware.”⁷³

Nakamoto’s insight proved itself in time. The mining business has grown in years. Today there are specialist companies producing at large scale, investing in the business and have millions of dollars income monthly, kicking small scale miners out of the game (Franco 2015, 6 February; Love 2014, 10 March; Price 2015, 13 August).⁷⁴

In the monetary theories of Hayek (2008), Hülsmann (2008) and Rothbard (2005) state intervention to market leads to monopolies and the claims of the Austrian School is that competition in the free-market will overcome monopolies and will be

⁷³ See The Mail Archive website | Re: Bitcoin P2P e-cash paper, Nakamoto, S., 2008, 8 November, viewed on <http://www.mail-archive.com/cryptography@metzdowd.com/msg09964.html> , on 24 November 2015

⁷⁴ Many more leading companies, latest Bitcoin blocks for mining and pool distributions could be viewed from Blocktrail website to see which companies have the biggest share in mining. See Blocktrail website, viewed on <https://www.blocktrail.com/BTC> , on 26 November 2015

more efficient seems to fail as the big companies invest more in the sector and control the market as the politics of Bitcoin rise. The logic of ‘pure market’ relations becomes a myth as the race of producing cryptocurrencies turns to a technological race. Bitcoin adherent and journalist Andrew Quentson states that “bitcoin has evolved into a highly centralized network under the technocratic governance of a small number of individuals.” (Quentson 2016, October 30) The claim of inflation free currency somehow becomes a technological inflation between competitors. This is where the motto of ‘you can be your own bank’ turns out to be ‘it takes money to make money’. It is somehow inevitable process considering that the money business is probably one of the most profitable businesses of all times which attracts gold bugs.

3.2 Moral Foundation of Competition

One of the themes used mostly in the texts of Bitcoin is corruption. This theme is used in relation with the central decision making of central banks and financial institutions. It is used in support for privatization of money and democratization with decentralization and competition which would overcome corruption and the inefficiencies caused by corruption. In the texts democratization of decision making progress is used closely related to the theme of corruption and it is argued that it would lead to efficiency and freedom. Centralized decision making of institutions are claimed to be inefficient and insufficient for the market. In these dichotomies between centralized and de-centralized decision making, corruption has a moral ground of market inefficiency. The texts of Bitcoin argue to overcome immoral condition of market by bringing decentralized decision making based on market efficiency with competition amongst agents. Morality in the texts of Bitcoin founded upon Market Laws.

Conventional use of the term in the dictionaries could be a starter. In the Oxford dictionary corruption is defined “Dishonest or fraudulent conduct by those in power, typically involving bribery” (Oxford Dictionary | Corruption, n.d.) and “The action or effect of making someone or something morally depraved”(Ibid). These

definitions have strong ties with morality. Corruption is used in the texts of Bitcoin for both positing financial inefficiency as in the theories of Austrian School of Economics and moral corruption such as fraud and bribery. Texts are overlapping morality and inefficiency together. Both are related to the posited problem of central decision making as I argued in the first chapter.

Decision making of the issuing of money is one of the main concerns of Bitcoin which is discussed under the theme of decentralization. Parallel to the theories of Austrian School of Economics decentralization with privatization in the free-market is defended and claimed as the solution of the corruption of the central decision making. Individual enterprises competing each other in the free market and freedom of choice of the consumers claimed as a cure for posited corruptions and inefficiencies. Withdrawal of the state from issuing money in the case of cryptocurrencies would enable individuals to take financial responsibility as both entrepreneurs and consumers.

In his personal blog Gavin Andresen (who works as a Chief Scientist at the Bitcoin Foundation which is a U.S non-profit organization for developing Bitcoin), posited the decision making problem in contemporary societies as wise leader fallacy that we tend to blame or reward our leaders rather than ourselves.

“The idea that wise men are in control of our money is, I think, comforting for most people who believe that our economy can be steered towards stability. They will smooth out the natural ups and downs, making the economy heat up when it is getting too cold and cool down when it is getting too hot.

Combined with people's natural risk aversion and suspicion of anything new, I wonder if that will be enough to prevent people from using bitcoin. "If it ain't broke, don't fix it" is a good rule of thumb; maybe bitcoins will only become mainstream in places where the monetary system is obviously broken.”(Andersen 2011, 2 April)

The problems of financial system posited as something which could be resolved with Bitcoin instead of ‘wise leaders’ but individuals taking responsibility for developing a ‘better’ financial system. But to do this people must take initiative for their financial responsibilities instead of trusting leaders and institutions run with central

decision making. The argument here is that most of the people like to think that some people are in control for posing and challenging problems such as presidents, managers or governmental institutions until the crisis of 2007-08. As author named Goat (2015, September 17) at pro-Bitcoin blog site Shitco.in denotes that Bitcoin as one of the positive outcomes of 2008 economic crisis. People started to become more interested in finance education and got involved in new assets such as Bitcoin. These kinds of critics posit the problem of corruption as the inefficiency of the current financial system and the solution as an outcome of financial crisis which would make people to take action towards creating a better financial system rather than leaving it to the expertise of bureaucrats and banks. Decentralized decision making with competition posited as a cure for central decision making of ‘wise leaders’ and institutions.

One of the striking lines in the texts is that “you can be your own bank.”(Bitcoin for Developers, n.d.; Singh 2015, 3 April; Hazewinkel 2016, 25 January) The definition on Reddit Bitcoin Community Page is one of the best which summarizes the claims of Bitcoin.

“Bitcoin is the currency of the Internet: a distributed, worldwide, decentralized digital money. Unlike traditional currencies such as dollars, bitcoins are issued and managed without any central authority whatsoever: there is no government, company, or bank in charge of Bitcoin. As such, it is more resistant to wild inflation and corrupt banks. With Bitcoin, you can be your own bank.”(Reddit | Bitcoin, n.d.)

Being ‘your own bank’ highlights the individualization of banking and taking financial responsibility instead of trusting former ‘corrupt’ inefficient institutions. Efficiency would be restored if individuals start to take more responsibility in a competitive market.

Statements such as these define the notion of decentralization as a feature either with bypassing the middleman, independent of governments and central banks, or being your own bank and at the same time refer to its technological infrastructure of

distributed public ledger known as blockchain.^{75 76} These features are claimed as being free from corrupt state institutions and banks, as the motive behind programming Bitcoin is to help market to get rid of corrupt bankers and financial institutions. As one example states “When Nakamoto’s paper came out in 2008, trust in the ability of governments and banks to manage the economy and the money supply was at its nadir” (Wallace, 2014, 25 July). Nakamoto wrote the code when the 2007-2008 financial crises began and following the reactions of governments after. “Nakamoto’s decentralized currency was a response to the crisis and, in particular, to

⁷⁵ Financial Times Lexicon | Definition of Bitcoin, retrieved from <http://lexicon.ft.com/Term?term=Bitcoin> , on 17 February.

Oxford Dictionaries website | bitcoin, viewed from <http://www.oxforddictionaries.com/definition/english/bitcoin> , on 30 August 2015.

Reddit’s Bitcoin Community Page, viewed on <https://www.reddit.com/r/Bitcoin/> , on 24 February 2015.

CNN Money website | What is Bitcoin?, retrieved from <http://money.cnn.com/infographic/technology/what-is-bitcoin/> , on 31 January 2015.

Jonathan B. Turpin, Bitcoin: The Economic Case for a Global, Virtual Currency Operating in an Unexplored Legal Framework, Indiana Journal of Global Legal Studies, Volume 21, Issue 1, 2014, pp. 337-338, p. 342

⁷⁶ See Financial Times Lexicon | Definition of blockchain, retrieved from <http://lexicon.ft.com/term?term=blockchain> , on 17 February, “When people invest in Bitcoin, the money is going into into the underlying technology - known as blockchain - not the payment instrument itself. The blockchain is essentially a giant record book of all Bitcoin transactions, it is to Bitcoin what the internet is to email. This is the decentralised network where every bitcoin transfer is verified, processed and written down. It has the potential to make economic interactions cheaper, faster and more secure. The idea is to remove the need for middlemen like banks to vouch for facts, such as a person’s identity or the health of their finances — authentication processes that can be slow and costly, and vulnerable to corruption and cyber attacks. Instead, the blockchain relies on a combination of code-breaking and crowdsourcing that aims to create a self-maintaining and reliable system of record. “It’s a giant accounting ledger that everybody agrees to but nobody owns,” says Peter Kirby, president of Factom — a US start-up that helps developers build products on the blockchain.” The technology is also a big electronic system and on top of which you can build applications. Currency is just one. Land registries, identity storage and peer-to-peer stock exchanges are just some of the potential uses of the blockchain, but there are big risks, as over time the cost of maintaining the technology will rise due to tougher regulation.”

CNN Money website | What is Bitcoin?, retrieved from <http://money.cnn.com/infographic/technology/what-is-bitcoin/> , on 31 January 2015.

Jonathan B. Turpin, Bitcoin: The Economic Case for a Global, Virtual Currency Operating in an Unexplored Legal Framework, Indiana Journal of Global Legal Studies, Volume 21, Issue 1, 2014, pp. 337-338, p. 342

the role of banks in mediating financial transactions. It was also linked into general hostility toward payment intermediaries like PayPal” (Mauer et al, 2013).

Distributed public ledger of blockchain technology posited as a solution for corruption with its claimed transparency. Corruption in these texts is defined in relation with central decision making of institutions and state interventions. Being your own bank implies financial responsibility of the individuals for decision making instead of banks and institutions.

“Blockchain functions as an online, public digital ledger. In the Bitcoin context, the technology makes it possible to track and record Bitcoin transactions in the ledger and distribute that information in real-time to all computers connected to the Bitcoin network. Because of this distribution, the ledger is updated independent of any central authority. Moreover, because each chronological “block” in the chain contains both unique information about each transaction and also a unique identifier of the previous block, which is then distributed to all computers on the network, it is very difficult (perhaps impossible) to tamper with or alter the transaction records.”(Jeong 2016, 8 January)

It is argued that this technology would prevent intervention of any central authority. Technology here plays the role of a savior and with its help decision making process would be freed from central authorities, distributed through market relations.

“Bitcoin is a peaceful, nonviolent, way of withdrawing from a system that snowballs your tax dollars into fighting foreign wars to maintain an outdated, failing monetary policy. It’s storing your wealth in a place soldiers, and spies cannot reach. It’s securing your present wealth from the mismanagement of other human beings who have never met you, who care nothing for you and know nothing about you. They make decisions that have a greater effect on your life than your own. Participating in Bitcoin is volunteering to be the guinea pig for what you hope is a better, brighter future, with just that much less violence in it for ourselves and our kids.”(Ibid)

In this example mismanagement of central decision making criticized for it gives little or no control at all for tax payers for economics, politics, wars etc. Here the writer implies financial responsibility of the individuals with the help of Bitcoin would overcome these problems.

Bitcoin advocates also argue that it could be the solution for the corruption led financial crisis such as in the examples of Greece and Argentina (Rees 2014, 9 April; Johnson 2015, 20 October; Popper 2015, 29 April; Jeffreys 2016, 15 January). These examples relate corruption with centralized decision making of the financial institutions of the state and banks and their control over money which led inefficiency such as in the example of Bitcoin adherent Alex Gorale,

“When a central bank wasn’t around issuing a federally mandated currency, private banks, states and organizations issued their currency. Individuals even had the ability to create their currencies. Like any other commodity, currency competed for consumers. If I don’t think your Texas Dollar is worth as much as my Pennsylvania Pound, I don’t have to accept it. It sounds like chaos, but its better than the alternative. In the least, this republic system of currency forced individual states and organizations to compete with each other. Nationalization of banks under the Hamiltonian System united them together against... us.”(Gorale 2015, 6 February)

Gorale also states that central banking in our time is a way to convert money into power and before the foundation of Federal Reserve, which succeeded in U.S; there were many different currencies in the market. Federal Reserve mandated its own currency and dropped efficiency in the market. Central banking is beneficiary for, and in control of, the wealthy people. Governments’ powers are taxation and the ability of extraction value from people through printing money. “Fiat is the ability of the government to reach into your pocket without reprisal. When the government takes on debt, extends credit, or prints money, any fidelity they have hinges on their ability to tax you.”(Ibid) Gorale claims that Bitcoin is a peaceful way of controlling wealth and power of the people for a better future whilst withdrawing from, and denoting the corruption of, the central banking system. As entrepreneur Ed Moy states it is the re-democratization of money “Bitcoin puts the power to create money back into the people’s hands” (Moy 2015, 6 November).

In the excerpts I used the theme of corruption is posited against the state and banks for causing inefficiency which led to financial crisis that could be easily avoided with using Bitcoin. The arguments in these texts are implying the morality of market with making it more efficient.

The theme of corruption here runs parallel to the monetary theories of the Austrian School of Economics which argue that privatization of issuing money should be taken from central banks and given to the private entrepreneurs.

In the works of Austrian School of Economics corruption is defined together with governments' intervention to market including monetary policies which cause inflation and debase currency. These theories propose the concept of free-market monetary system as a solution with private monies issued by private entrepreneurs in a competitive market (F. A. Hayek 2008; M. Rothbard 2005; Hülsmann 2008). The notion of decentralization with private entrepreneurs highlighted as a cure for decision making which is posited as the reason for inefficiency and corruption parallel to the texts of Bitcoin. Economist David R. Henderson defines it as a situation of transparency and participation to decision making "A necessary condition for corruption is that someone has power to make decisions for others, decisions that those others can't perfectly monitor" (Henderson 1999, 19 April) and correlating the degree of government control and the level of corruption as bribery in different forms such as "subsidies, tax breaks, permits and regulatory exceptions"(Ibid) which government corruption turns regulations into power and argued more government control cannot be the cure. Economist, following the tradition of Austrian School of Economics, Thomas J. DiLorenzo argues that U.S Federal Reserve posited as one of the biggest cartels and criticized U.S Chicago School for ignoring this (DiLorenzo 2013, 31 May). Intervention to market defined as public ownership of government which take advantage of using the power of government for the benefit of the elected few against individuals' property rights with ignoring the damage they do to society and argued that government intervention to money production leads to collective corruption which is explained by Austrian Business Cycle Theory developed by Ludwig von Mises (Polleit 2011).⁷⁷

⁷⁷ See Polleit, T, Fiat Money and Collective Corruption, 2011, The Quarterly Journal of Austrian Economics 14, No. 4, viewed on <https://mises.org/library/fiat-money-and-collective-corruption-0> , 23 February 2016, See pp. 399-400, "As a priori theory, the ABCT, as developed by Mises, shows that bank circulation credit necessarily lowers the market interest rate to below the rate level that would prevail had the credit supply not been artificially increased. In turn, this must set into motion an unsustainable economic boom. The increase in fiduciary media brings peoples' savings-consumption-investment relation out of equilibrium—compared with the relation which would prevail had there

In the texts of Bitcoin critics of corruption run parallel with the theories of Austrian School of Economics. Although corruption mostly related with economic inefficiency explained by objective market laws it is also a moral concept by implying what is right for ‘the common good’. This is the moral foundation of market relations, private property and competition.

Austrian theorists affirmed Weberian notion of Wertfreiheit (ethical neutrality/value free) in their works as the foundation of economics (Kirzner 1976).⁷⁸ As Ludwig von Mises once pointed out that, “economics is apolitical or nonpolitical, although it is the foundation of politics and of every kind of political action. We may furthermore say that it is perfectly neutral with regard to all judgments of value, as it refers always to means and never to the choice of ultimate ends” (1949, p. 881). The choice of ends are praxeological, it is the sphere of individual goal oriented aims. Liberalism does not assert any goals for individuals but it teaches how to act in accordance with their own valuations by making them free enough from mere material concerns of breadwinning to enable them pursuing more noble ends of their own choosing.⁷⁹ The method of praxeology of the Austrian School is an a priori

been no increase in circulation credit: Consumption and investment increase, while savings decline, so that the monetary demand outpaces the economy’s resources.

In attempt to move back towards equilibrium, the market interest rate is driven back from its artificially reduced level towards society’s true (and necessarily higher) time preference rate, through which investment and consumption decline and savings increase. This, in turn, reveals malinvestment, and the boom turns into bust. investment projects and jobs, which were created as a result of injecting additional circulation credit and fiat money, become unprofitable. As economic adjustment takes time, output falls and unemployment goes up (temporarily).”

⁷⁸ See Kirzner, I, *The Foundations of Modern Austrian Economics*, Part 2, Essay 4 *Philosophical and Ethical Implications of Austrian Economics*, ed. Dolan, Edwin G, viewed on http://www.econlib.org/library/NPDBooks/Dolan/dlnFMA5.html#anchor_n96 , on 22 February 2016

⁷⁹ See Mises, L, *Human Action A Treatise on Economics*, 1949, Ludwig von Mises Institute, p. 154, “As a political doctrine liberalism is not neutral with regard to values and the ultimate ends sought by action. It assumes that all men or at least the majority of people are intent upon attaining certain goals. It gives them information about the means suitable to the realization of their plans. The champions of liberal doctrines are fully aware of the fact that their teachings are valid only for people who are committed to these valuational principles. While praxeology, and therefore economics too, uses the terms happiness and removal of uneasiness in a purely formal sense, liberalism attaches to them a concrete meaning. It presupposes that people prefer life to death, health to sickness, nourishment to starvation, abundance to poverty. It teaches man how to act in accordance with these valuations.”

theory; it makes propositions anterior and independent of experience which opposes contemporary mainstream positivism-empiricism oriented economics such as Chicago School (Polleit 2011).

Parallel to value free approach of the market definition in the texts of Bitcoin it is stated as non-political money. “As a non-political online money, Bitcoin is backed exclusively by code. This means that—ultimately—it is only as good as its software design. By funding the Bitcoin infrastructure, including a core development team, we can make Bitcoin more respected, trusted, and useful to people worldwide”(The Bitcoin Foundation Website | Overview, n.d.).

By asserting market relations under the name of ‘value freeness’ Austrian thinkers and the texts of Bitcoin objectify their subjective perspective and taking market laws as given. Competition in the market posited as ‘common good’ which asserts what is right for society as a common good and it is highly moral. Also Bitcoin is developed by people and constantly updated. These changes are also highly political and open to conflicts and critics which cannot be simply value-free.

The moral side of the texts on the corruption of financial institutions works by positing centralized institutions’ decision making inefficient for causing financial crisis as a single point of failure, blaming politicians, bureaucrats and their expertise while private sector inefficiency and corruption made invisible by limiting them within the boundaries of the individual sphere. This is conceptualized as the reason behind financial crisis by showing the negative effects of centralization which causes inefficiency in the market. While collective corruption comes with government interference of forcing individuals to non-voluntary action (which hampers market with the violation of property rights), individual corruption is limited with thief and fraud. The only way of reducing corruption is to cut back the governments’ role in the economy by enabling competitive enterprises which would overcome corruption and inefficiency with market laws. (Polleit 2011, p. 407-408) These approaches which individualize financial responsibility also individualize corruption to justify

market relations and competition as a solution for better products and maximum efficiency.

Considering individuals as autonomous private entrepreneurs issuing and regulating money against state monopoly could only solve some problems in financial terms and yet we see how similar problems emerged with the poor management of new companies such as in the case of Mt.Gox. and numerous others (MacMillan 2014, 3 March; Racine 2015, 1 August; Madore 2016, 6 January; Das 2016, 19 February); from fraudulent bankruptcy, illicit uses, deceiving customers, secret service agents, drug markets, money laundering to terrorism and Islamic State, any kind of affair could be found in the cryptocurrency market which could also easily be named as corrupt (CCN.LA website | Bitcoin Scams, n.d.).

Mt.Gox owner Mark Karpelés made a statement after the incidents saying, “We had weaknesses in our system, and our bitcoins vanished. We’ve caused trouble and inconvenience to many people, and I feel deeply sorry for what has happened” (MacMillan 2014, 3 March), then announced the company’s bankruptcy. Since it is not the state nor any banks are guarantors of these amounts of bitcoins they have been stolen away without insurance. Bitcoin journalist MacMillan also states that, “From a distance, the world’s largest bitcoin exchange looked like a towering example of renegade entrepreneurship. But on the inside, according to some who were there, Mt. Gox was a messy combination of poor management, neglect, and raw inexperience”(Ibid), highlighting the consequences of poor management which caused that 460\$ million worth of bitcoins were stolen by hackers and also 27.4\$ million dollars missing from their bank accounts due to poor management (Ibid).

Considering these examples together with the anti-centralization critics on institutions’ corruptions could be helpful for explaining how the texts operate. Corruption, theft and fraud could be found on every sphere government, private sector or voluntary organizations, yet the enthusiasts of Bitcoin (and the Austrian School) concentrates their discussions mostly on governmental institutions’ and financial institutions corruption while fraud, theft and corruption in the private sector

and cryptocurrency market considered as minor problems and could be solved with competition and consumer demand solely.

Although prominent part of the texts of Bitcoin uses the notion of corruption together interchanging with inefficiency; it is also together used with the notions of bribery, fraud and illicit activity and argued that Bitcoin will bring trust with transparency. Here the play of texts posits morality inherently while concentrating arguments on institutions' inefficiency with using the notion of corruption closely together with the notions could be conceptualized as immoral actions.

Withdrawal of the state makes individuals responsible for their needs and enables them to order to their own conduct in accordance with their morality by giving them an entrepreneurial form as Advanced/Neoliberal sociality (Rose 1996; Lemke 2001), and the a priori methodology of praxeology argued as a value free theory which gives individuals means to pursue their own ends according to their morality with economics stated as non-political and apolitical (Mises 1949). Here together Advanced liberal/Neoliberal sociality, method of praxeology of the Austrian School of Economics and the texts of Bitcoin overlaps by seeing freedom and individual liberty in terms of market relations and conceptualizing both economics and Bitcoin as apolitical/non-political. Yet inherently their morality is asserted objectively as market laws and competition through highlighting a better way for 'common good'.

Considering these arguments above, Austrian School and the texts of Bitcoin together could be criticized for not being so value free as their problematization of positing the central decision making as the source of all problems which could be cured with privatization implies their political values and make generalizations of any kind of government control or intervention to market will create more inefficiency and corruption (even the monopolies in private sector caused by state intervention), meanwhile problems of private sector and illicit activities individualized as occasional and extraordinary problems which could be easily overcome by competition in the free-market by consumer demand. The notion of corruption plays a double role in the texts of Bitcoin, one referring the reasons of

inefficiency in the market, while the other claims immoral actions of state institutions, bureaucracy and banks, meanwhile arguing it's a non-political money by taking a 'neutral' stand similar to Austrian School of Economics and implying their own moral values, making its indispensable politics of competition and private property invisible and do not question the notion of individual or private property by taking them given. Their interest in private property is limited with the benefits and costs for the individuals who own them, not its social costs under unhampered free-market. In other words collective corruption defined as the source of societal problems and comes with centralization and monopoly, while individual corruption is ignored by stating it could be overcome by competition and consumer demand. Decentralization posited as the cure for institutional inefficiency and monopoly, while private entrepreneurs inefficiency and fraud conceptualized as individual corruption and ignored, arguing it could easily be cured by competition and consumer demand. Imaginary construction of praxeology specifically concentrated and built for the benefit of 'unhampered' free-market, for the ones who will benefit the most; defined as private property owners.

3.3 Politics and Governance of Competition

Austrian School's irrational approach against the design theories of the rational tradition of individualism (namely the French tradition or allegedly false individualism) marks their unique position of anti-design called spontaneous order for approaching market economics. Any kind of state intervention to the free-market regarded as an attack to individual liberty which will inevitably lead to totalitarianism. Texts of Bitcoin follow a similar approach for defining their organization and design. They claim to bypass the 'hampering' institutions such as Federal Reserve and commercial banks. Yet similar to Austrian School's theories they make another rational design of bypassing state intervention to market economics (in disguised as spontaneous order in Austrian School and 'no control' or bypassing state and financial institutions in the texts of Bitcoin and other cryptocurrencies).

In this section I aim to discuss how their anti-design/anti-intervention approach founded upon ‘objective’ market order theories which inherently impose market laws and competition. Defenders of cryptocurrencies claim they created a ‘pure market’ without state intervention with computer program specifically designed by individuals.

Alongside decentralization and competition traits of trust and transparency are also claimed as solution of cryptocurrencies for market inefficiency and corruption. Trust and transparency is defined vital for finance and commerce as antidote for posited corruptions.

Satoshi Nakamoto published a post with a design paper on a website forum which criticizes the requirement of trust between parties for a decent financial system to operate and he implies that the financial institutions and the states are not to be trusted.

“I’ve developed a new open source P2P e-cash system called Bitcoin. It’s completely decentralized, with no central server or trusted parties, because everything is based on crypto proof instead of trust. [...] The root problem with conventional currency is all the trust that’s required to make it work. The central bank must be trusted not to debase the currency, but the history of fiat currencies is full of breaches of that trust. Banks must be trusted to hold our money and transfer it electronically, but they lend it out in waves of credit bubbles with barely a fraction in reserve.”(Nakamoto 2009, 11 February)

Nakamoto posits the problem of central banks for abuse of trust in the past while he proposes his design as a solution. The theme of corruption in the previous section here related to the theme of trust by replacing financial institutions with Bitcoin, proposing it as an antidote for posited problems.

In the texts of Bitcoin the notion of ‘trust’ is used against the notion of corruption with proposing both transparency and anonymity as its antidote (Sullivan 2015, June; Jenn 2015, 2 June). It is stated that the program bypasses the need of third-parties such as ‘corrupt’ financial institutions and banks, and people trust Bitcoin because it does not need any trust (Nakamoto 2008).

“Much of the trust in Bitcoin comes from the fact that it requires no trust at all. Bitcoin is fully open-source and decentralized. This means that anyone has access to the entire source code at any time. Any developer in the world can therefore verify exactly how Bitcoin works. All transactions and bitcoins issued into existence can be transparently consulted in real-time by anyone. All payments can be made without reliance on a third party and the whole system is protected by heavily peer-reviewed cryptographic algorithms like those used for online banking. No organization or individual can control Bitcoin, and the network remains secure even if not all of its users can be trusted.” (Bitcoin FAQ | Why do people trust Bitcoin?, n.d.)

By stating that it does not need any trust, here in these texts what is back grounded is that people trust the program of Bitcoin and the infrastructure of computer network which is argued that it will work more efficient comparing to conventional institutions with its transparent public ledger called ‘blockchain’ which enables everyone to see and follow transactions between accounts without the possibility of intervention.⁸⁰ Trust in Blockchain technology in the texts aims to replace the trust for institutions. Financial Times Lexicon defines blockchain as a giant record book everyone can see,

“When people invest in Bitcoin, the money is going into the underlying technology - known as blockchain - not the payment instrument itself. The blockchain is essentially a giant record book of all Bitcoin transactions, it is to Bitcoin what the internet is to email. This is the decentralised network where every bitcoin transfer is verified, processed and written down. It has the potential to make economic interactions cheaper, faster and more secure. The idea is to remove the need for middlemen like banks to vouch for facts, such as a person’s identity or the health of their finances — authentication processes that can be slow and costly, and vulnerable to corruption and cyber attacks. Instead, the blockchain relies on a combination of code-breaking and crowdsourcing that aims to create a self-maintaining and reliable system of record. “It’s a giant accounting ledger that everybody agrees to but nobody owns,” says Peter Kirby, president of Factom — a US start-up that helps developers build products on the blockchain.” The technology is also a big electronic system and on top of which you can build applications. Currency is just one. Land registries, identity storage and peer-to-peer stock exchanges are just some of the potential uses of the blockchain, but there are big risks, as over time the cost of maintaining the technology will rise due to tougher regulation.” (Financial Times Lexicon | Definition of blockchain, n.d.)

⁸⁰ See Blockchain website for transactions, viewed on <https://blockchain.info/>, on 16 March 2016

The recorded data of transactions between individuals on this giant ledger called Blockchain taken as an immutable objective truth, publicly showing which account have how much coin in it. In other words, Blockchain create a system which cannot be intervened by state and financial institutions. Centralized ledgers of the former financial institutions allegedly lacked this trait. Cryptocurrencies claimed that with the technology underlying Blockchain bypasses any intervention with its code programmed (designed) by programmers. Also fin-tech reporter Williams-Grut (2015, 2 December) defines blockchain as,

“In its most basic form, the blockchain records ownership of bitcoin and transactions involving the cryptocurrency across a wide network of computers, as opposed to a centralized ledger.

Transactions are signed off by the parties involved using the software, checked by the network or the "crowd," then added to the blockchain — a long string of code that records all activity. Encryption in the software ensure these "blocks" can't be tampered with or altered. And the decentralized nature means the "crowd" police the whole system.” (Williams-Grut 2015, 2 December)

Problematization of insecurity and corruption of existing financial institutions in the texts posits an answer: a ‘trust-less’ solution with transparency of Blockchain. In Nakamoto’s words “The public can see that someone is sending an amount to someone else, but without information linking the transaction to anyone. This is similar to the level of information released by stock exchanges, where the time and size of individual trades, the "tape", is made public, but without telling who the parties were.”(Nakamoto 2008) This way it brings transparency with anonymity, and often called pseudo-anonymous (Bradbury 2013, 7 June).⁸¹

In sum Bitcoin aims to replace banking system, replacing the authority of central banks and financial institutions with the authority of its community of developers, entrepreneurs, NGOs and users. Mottos such as “Vires in numeris” (“Strength in

⁸¹ For achieving better ways to make Bitcoin more anonymous, See Bradbury, D, How anonymous is Bitcoin? , 2013, 7 June, viewed on <http://www.coindesk.com/how-anonymous-is-bitcoin/> , on 16 March 2016

Also See Walsch, D, How To Use Bitcoin Anonymously, 2015, 22 May, viewed on <http://cryptorials.io/how-to-use-bitcoin-anonymously/> , on 16 March 2016

Numbers”) (Miller 2013, 16 December) and “In code we trust” (Davidson 2015, 30 April) highlights the notion of trust. Notion of trust could be understood better here according to Mauer, Nelms and Swartz’s (2013) explanation. Bitcoin’s solid foundation is its code and its community of users trust over this code, “[...] the trust they place in their collective ability to review, effectively evaluate, and agree as a group to changes to it.”(Mauer et al. 2013, p.263) The trust in this community replaces the guarantorship of state in the case of fiat currencies and this is where the value of bitcoin price lies. This community is consisted of entrepreneurs, developers, non-profit organizations, enthusiasts and users. Collective ability comes through users’ share of their experiences as feedbacks to developers for updating the program with forum websites and conferences held together with foundations (NGOs). Although the community plays an important role, in the texts the key points highlighted are the technology and the trust over this program and technology.

Texts are positing cryptocurrencies as the solution for the corruption of financial institutions. What they are proposing is to trust Bitcoin rather than conventional institutions. “As a non-political online money, Bitcoin is backed exclusively by code. This means that—ultimately—it is only as good as its software design. By funding the Bitcoin infrastructure, including a core development team, we can make Bitcoin more respected, trusted, and useful to people worldwide.”(Bitcoin Foundation, n.d.) As another example states more clearly that “[...] it is a machine for creating trust”(The Economist 2015, 31 October) with its underlying technology called blockchain that automates financial transactions instead of financial institutions and banks. Here the technology aims to replace the trust in institutions and trust between people with ‘trust’ through Bitcoin.

Replacing trust in institutions with technology does not make it ‘trustless’ as it has argued. Developing and programming of Bitcoin bring new problems. There have been numerous problems stated in the development and the governance of Bitcoin as in the case of any other financial institutions one can find. (Mougayar 2015, 21 August; Corem 2015, 22 August; Popper 2016, 14 January; Wilson 2016, 15

January; Reed 2016, 20 January) As one example summarizes the ‘human side’ of machinery,

“Bitcoin, a decentralized monetary system, aims to be the new money for the Internet arena, eliminating lack of trust and reducing risks to the monetary system that are brought on by human involvement and decision making. But even Bitcoin is a machine that is programmed by mere humans. Under the hood, politics can still be divisive when developers disagree on important code changes.”⁸²

‘Human side’ of the machinery is political. The politics of Bitcoin have its own struggles and conflicts since the developers also got involved in the business, and investors put high amounts of money for developing the industry, the so called non-political money becomes highly political and non-profit organizations turn out to be profit oriented, considering the programming process is very complex and needs to be reviewed and accepted by experienced developers (Bitcoin Foundation | Bitcoin Development, n.d.) which are known as Bitcoin core contributors.⁸³ Since the average user cannot know the complexities of programming and developing, it is highly exclusive for the common user and inclusive only for the experts. Common user can only use it for to buy and sell things, to invest and demand it as a product and with these ways contribute to make it last in the market. The notion of trust here is becomes a financial trust and it is something that you can buy with cryptocurrencies as consumers who are defined non-political in competitive market choosing best option available for their self-interests.

The concept of trust is highly social and machinery cannot solve social problems but can only bring rational efficiency if it’s developed and used properly (or rather efficiently), but since the texts of Bitcoin is founded upon untrustworthiness of financial affairs it is unlikely to solve these problems. Trust in Bitcoin in texts implies the trust in the efficiency of technology it brings. But efficiency is only one side of the problem. Other side of the problem is that trust is highly moral and

⁸² See Corem, G, Money And Politics: Bitcoin’s Governance Crisis, 2015, 22 August, viewed on <http://techcrunch.com/2015/08/22/money-and-politics-bitcoins-governance-crisis/> , on 16 March 2016

⁸³ See for a list of contributors, Bitcoin website | Bitcoin Development, Bitcoin Core Contributors, viewed on <https://bitcoin.org/en/development#bitcoin-core-contributors> , on 18 March 2016

political. These questions take us back to responsibility and morality of the individuals with their limited definition as consumers within the context of market relations where they can only choose between the given products. Trust as morality in the cryptocurrency market measured with coins.

In the texts a computer program which calculates and solves mathematical equations for keeping a ledger necessary for transactions proposed as a solution for problems posited in financial affairs. Highlighting the theme of trust as a problem is readily taking the contemporary financial affairs built on 'corrupt' untrustful affairs. We should not trust governments; we should not trust banks but computer software, its developers and private entrepreneurs instead of people working in 'traditional' institutions.

But in this age of untrustful financial affairs it is difficult to bypass the problems of trust. In the works of Simmel the definition and the role of the notion of trust is more or less means "a state of favourable expectation regarding other people's actions and intentions" (Möllering 2001, p. 404) and it is one of the most important elements in a society and without mutual trust society would disintegrate (Ibid, p. 405). It is not a simple calculated prediction, it refers to a moral value, moral obligation. In these sense texts of Bitcoin pictures pretty disintegrated society after the crises of 2007-08 which could be overcome by calculations of technology and programmers.

Trust is a practical conduct that works for and through individuals and associations. In financial affairs and in the economy trust represents creditworthiness of individuals and associations, as personal security and possession of money the most concentrated form of security and confidence in organizations and society (ibid, pp. 405-406). Trust in economic relations increasingly noticed, as Kroeger (2011) states current economic crisis is strongly linked to "escalation and collapse of trust"(Ibid, pp. 743-744) as here in the case of Bitcoin it highlights untrustful approach to institutions and banks after the crises, and conceptualizes society untrustworthy in financial affairs. Organizational trust is important because it provides a basis for interpersonal trust as reducing the social complexities of risk for trusting between

negotiators (ibid, pp. 746-747). Here in the case of Bitcoin, the program mediates and negotiates anonymous parties, creates a basis for impersonal trust in which users trust the program and its developers. It's community of developers and programmers unknown to the most of the users besides news sites and blogs which makes the trust on Bitcoin relatively impersonal too. What is at the heart of texts is that it takes the untrustfulness of state institutions and commercial banks and tries to replace it with another organization. But this organization is even more irresponsible considering that no one guarantees anything when the things go wrong. Users have full responsibility over their possessions of bitcoins. There are no third party mediaries, insurances or guarantors for Bitcoin, if bitcoins are stolen from their addresses it is in the user responsibility to cope with the effects. (Bitcoin Foundation | What happens when bitcoins are lost?, n.d., Bitcoin Foundation | Is Bitcoin Secure?, n.d.) In the pure market relations of Bitcoin financial responsibility of the users foregrounded while the responsibility of the state and the institutions are ignored by replacing them with another organization. This is the dark side of the efficiency problem.

The market credibility of bitcoins shows its trustworthiness at a given time. If its price is stable or even increasing it is taken as a sign for trust with demand. If its price is unstable or decreasing it is taken as a sign of uncreditworthiness which means the market is collapsing. Ultimately trust is measured out with the price of coins quantitatively. As one of the most important exchange site Mt.Gox went bankrupt massive price drop occurred (Wong 2014, 8 February; Brunozzi 2014, 21 February; Greenberg 2014, February 25). Also a more recent price drop occurred after hacker attack on another exchange site Bitfinex in which 65 million dollars of worth bitcoins were stolen (Bovaird 2016, 2 August; Ashok 2016, 3 August; Redman 2016, 3 August; Ruble 2016, 3 August). The price of the bitcoin shows its trustworthiness. Objectification of market laws measures the trust between users, community of developers and entrepreneurs quantitatively. Solution of Bitcoin to the problem of untrustful disintegrated society is ultimately measured out with money quantitatively as an indicator for trust.

Although the texts of Bitcoin is concentrated on financial matters; it has also been argued that the underlying technology called blockchain could solve other institutional problems which use any kinds of ledgers, records, copyrights or rights of ownership; (Baker 2016, 21 March) from real estate markets (Oparah 2016, 6 February), identities and passports (Biggs 2014, 31 October; Cordell 2014, 31 October, Redman 2015, 27 September; Faife 2015, 23 January) to music industry for copyrights (Rogers 2015, 24 November; Rogers 2016, February 24). Some even argue that it will change everything as a game changer (Williams-Grut 2015, 2 December; Eyers 2016, 6 February). Blockchain claimed to be used for keeping record of music copyrights, certificate of real estate ownerships and identities. These projects use blockchains not for keeping record of financial transactions but for keeping ledgers of other valuables, claiming it could help solving the ‘intervention’ problem in the other markets and institutions.

The notion of trust in the texts of Bitcoin used as more than just financial trust and attributed a potential to change society profoundly with technology and economics: Bitcoin becomes a concept of ‘deus ex machina’ for the solution of highly social, moral and very complex problems posited. Yet it has been argued above that it can only bring financial efficiency according to the logic of market (But it should be highlighted again that there are numerous failures showing the opposite).

CHAPTER 4

IDEAL MONEY, IDEAL SOCIETY

In the texts of Bitcoin competition is taken as normative characteristic of the self justified objective market laws. Decentralization with competition of issuing money would enable markets to work more efficiently for overcoming financial crises. Financial trust and transparency claimed as an antidote for market inefficiencies posited as corruption.

Parallel to the theories of the Austrian School of Economics, through competitive process and consumer demand individual errors would be corrected in the market for producing better products. Underpinning rationality of market design (or rather irrationality and spontaneous order) taken as a normative justifier with a priori and value-free theory of economics which inherently implies market efficiency as morality by claiming a 'common good' for society.

Search for ideal money in the texts represents the search for an ideal society based on the design of spontaneous 'pure market' laws. Texts of Bitcoin trespass the boundaries of economics and conceptualizes social in terms of market by taking the design of money as the core problem of crises.

4.1 Free-Market Monetary System

“Most people seem to imagine that any proposal for private agencies to be allowed to issue money means that they should be allowed to issue the same money as anybody else (in token money this would, of course, simply amount to forgery) rather than different kinds of money clearly distinguishable by different denominations among which the public could choose freely.”

-Friedrich von Hayek (Denationalisation of Money 1990)

In his article “The Economic Case for a Global, Virtual Currency Operating in an Unexplored Legal Framework” Attorney and Law Professor Jonathan B. Turpin states that, Bitcoin is “[...] not backed by any government or redeemable for any commodity—which could be moved anonymously across borders, absent the control of any government body” (Turpin 2014, p. 337). Science and technology reporter James Vincent defines Bitcoin as “[...] a new kind of electronic payment system that is often referred to as a ‘decentralized peer-to-peer currency’. This means that there is no central body that controls the Bitcoin network (in one sense it is regulated and operated by the people who use it)[...]” (Vincent 2014, April 22). CNN Money website states that Bitcoin is not subject to regulation or tied to any country. (CNN Money website | What is Bitcoin?, Why Bitcoins? 2015, January 31)⁸⁴ Member of the Brussels Bar and FinTech expert Edwin Jacobs denotes that it is an unregulated virtual currency. “It is not linked to any real life currency, but it can be used to purchase real life goods and services, not just in the virtual world. There is no central authority to approve transactions paid by Bitcoins, and manage the money supply but rather created on a peer-to-peer network.” (Jacobs 2013, July 3) These statements are made parallel to the decentralization, competition and privatization discussions.

The traits of free-market highlighted as ‘no central body’, ‘no control’, ‘no regulation’ above Bitcoin is quite similar to F. A. Hayek’s notion of private money.

⁸⁴ See CNN Money website | What is Bitcoin?, Why Bitcoins?, retrieved from <http://money.cnn.com/infographic/technology/what-is-bitcoin/>, on 31 January 2015

Yet it should be denoted that it is together with the innovations of internet (Rogojanu et al. 2014) “The digital currency called Bitcoin falls into the pattern of the private currency described by FA von Hayek, except the cyberspace in which it circulates” (Ibid, p.107). At first the innovation of Bitcoin might look complex for many yet the idea lies at the foundation simple as the privatization of money. But considering Brown’s (2013, 8 May)⁸⁵ argument that we have already been using digital money and internet banking for years, it is not so complex to understand what is taking place with the case of Bitcoin. Current systems of financial institutions are using digital systems for keeping ledgers and internet banking. What is different in the case of Bitcoin is that it is not centralized as argued in the previous chapters. Franco (2015) is also one of the many who draw a similar perspective between Austrian School and Bitcoin. He argues that Bitcoin is a new kind of money which is decentralized and not backed by any government institutions. In contrast, centralized fiat currencies are under the insurance of governments and federal banks. He states that there are generally accepted functions for a medium of exchange to be considered as money. These functions are to be a medium of exchange, unit of account and store of value.⁸⁶ According to Franco some critics argue over Bitcoin does not fulfill these fundamental functions therefore is not suitable to be defined by the word ‘money’. However he states that Bitcoin is more readily accepted by economists who have Austrian School perspective.⁸⁷

⁸⁵ Brown, A, Is Society Ready for Bitcoin?, 8 May 2015, Coindesk, viewed on <http://www.coindesk.com/is-society-ready-for-bitcoin/> , on 20 July 2015, She argues that the “[...]simple definition of money: a medium of exchange, a measure of value and a store of value.

⁸⁶ See Franco, P., Understanding Bitcoin, Wiley, 2015, p 21, he states that, “Medium of exchange. Money can be exchanged for goods and services. Store of value. Money can be used to transfer purchasing power from the present to the future. Unit of account. Goods and services are quoted in terms of the money unit.”

⁸⁷ See *ibid*, pp. 21-22, Franco argues that, “Austrian School economists believe money emerges from the competition between several mediums of exchange. The most accepted of these competing mediums of exchange emerges as money. Other mediums of exchange can co-exist and these are called secondary mediums of exchange or sometimes quasi-money. In contrast, mainstream economists believe it is governments that create demand for fit money by declaring it legal tender, meaning it must be accepted as payment to settle all debts, public and private.

Austrian School economists believe that an increase in the money supply or an expansion in credit will inevitably lead to price increases and economic instability. Thus inflation for Austrian School economists is not an increase in the prices of goods and services, but merely an increase in the money supply.

Austrian School economists believe deflation can be caused either by technological progress or by a decrease in the monetary supply. Only the second cause is considered problematic, as deflation arising

One of the prominent features of the texts of the Bitcoin is the anti-government stand for monetary systems. Corruptible elements of government institutions, interventions and monopolies are frequently denoted and debased. Prominent figures of the Austrian School such as Hayek, Rothbard, Hülsmann and many others defend the idea of free market monetary system in their works in which they support the idea of private entrepreneurship without state intervention or monopoly of central banks on issuing money: Separation of the state and the money with a private competitive market. Also Ludwig von Mises and Carl Menger defended the idea of gold standard as a sound money and stand against the monopoly of central banks in their works.

According to Hayek (2008) unless we took the governments monopoly over printing money and open the way for private industry; it is not possible for us to have decent, sound money at all.

“if we ever again are going to have a decent money, it will not come from government: it will be issued by private enterprise, because providing the public with good money which it can trust and use can not only be an extremely profitable business; it imposes on the issuer a discipline to which the government has never been and cannot be subject. It is a business which competing enterprise can maintain only if it gives the public as good a money as anybody else.” (Ibid, p. 10)

If it would be possible to have a private industry for issuing money, then the competitive logic of market will impose the entrepreneurs for keeping their product as sound as possible to not to lose their share in the market and their profits. “[...] we would get for the first time a money where the whole business of issuing money

from technological progress is not harmful for economic growth. Thus Austrian School economists advocate a fixed money supply. This view is not shared by mainstream economists, who believe that the economy has significant price rigidities, such as sticky wages, that prevent it from reaching an equilibrium. Mainstream economists believe a small amount of inflation helps grease the wheels of economic growth.

Austrian School economists believe business cycles are created by banks issuing excessive credit through fractional reserve banking which leads to a misallocation of economic resources and the consequent reversal causing a recession. While mainstream economists believe there is little to do during expansions and much to do during contractions (increase the monetary supply, increase government spending),

Austrian School economists believe there is little to do during contractions (just let the economy filter out the excesses by itself) while action must be taken during expansions (limit the increase in the monetary supply)”

could be effected only by the issuer issuing good money. He would know that he would at once lose his extremely profitable business if it became known that his money was threatening to depreciate. He would lose it to a competitor who offered better money.”(ibid, p. 23) There is no historical justification for governments’ monopoly for issuing better money; issuing money was a representation of royal power in the past. This prerogative was not aimed to create good money but to represent the royalty. It was not aimed in order to give people good money but to enable government to use the tap of the source from first hand by manufacturing it. Giving the monopoly of money to an institution which is protected from competition is not the solution for having good and sound money. “[...]those of you who are mainly interested in a good monetary system must hope that in the not too distant future we shall find generally applied another system of control over the monetary circulation, other than the redeemability in gold. The public will have to learn to select among a variety of monies, and to choose those which are good” (Ibid, p.27). With this way capitalism would overcome the problem of creating good money. Also adapting a new monetary system would help “[...] the major fluctuations in economic activity and the prolonged periods of depression” (Ibid, p.28).

Murray Rothbard (2005) also shares a similar line of thought. He argues that many people and economists tend to think state regulated issued money is not interference to free market. They are devoted to free market except readily accept that government should be in the control for issuing money. A free market for money is unimaginable for them; it is governments’ duty to mint, issue and print money in and out for stabilizing price levels in the market. He denotes that money is one of the first things controlled by governments in the history. Most people tend to think that the coinage is a necessity for sovereignty, but it is the people not the government that sovereignty founded upon.

“Let us first ask ourselves the question: *Can* money be organized under the freedom principle? Can we have a free market in money as well as in other goods and services? What would be the shape of such a market? And what are the effects of various governmental controls? If we favor the free market in other directions, if we wish to eliminate government invasion of person and

property, we have no more important task than to explore the ways and means of a free market in money.”(Ibid, pp. 8-9)

Another prominent Austrian School of Economics figure Carl Menger argues that the best way to guarantee coins weight and fitness is the governments themselves. Because governments are known, recognized by everyone and have the power to prevent and punish who do not obey the coinage. However it is governments themselves who misused this power in the history (Menger 2007).

“Governments have therefore usually accepted the obligation of stamping the coins necessary for trade. But they have so often and so greatly misused their power that economizing individuals eventually almost forgot the fact that a coin is nothing but a piece of precious metal of fixed fineness and weight, for which fineness and full weight the honesty and rectitude of the mint constitute a guarantee. Doubts even arose as to whether money is a commodity at all. Indeed, it was finally declared to be something entirely imaginary resting solely on human convenience. The fact that governments treated money as if it actually had been merely the product of the convenience of men in general and of their legislative whims in particular contributed therefore in no small degree to furthering errors about the nature of money” (Ibid, p. 283)

Considering Menger’s definition of money as a piece of fictitious precious metal could extend our perspective for approaching money and makes honesty an important ingredient of sound money. Corruption of governmental institutions and the need for trust are highlighted in the texts of the Bitcoin. It is also denoted in the texts of Bitcoin as removing the ‘middle man’ of public institutions, central banks, or paying mediaries such as western union and PayPal. It is proposed as a ‘trust-less’ currency which ensures its users trust in its technology.

Bitcoin’s complex infrastructure of software and hardware makes it confusing and difficult to understand for people who are not specialists, programmers or engineers. Taking it as private money as in the theories of Austrian School of Economics simplifies analysis. Free market monetary system theories highlight that it must be the people as consumers who choose the best money among many according to logic of competition in the free market. Hayek’s (2008) and Hülsmann’s (2008) approaches are parallel to the texts of Bitcoin that we need to abolish legal privilege of authorities over monetary system for the privatization of money.

“A natural monetary order in our day is certainly not identical with what a natural monetary order would have looked like in the sixteenth century. We do not advocate abolishing credit cards, checking deposits, and whatever other viable financial institutions might originate on the market. The point is to return to a universal respect for property rights. We need not change instruments such as banknotes, paper money, and the organization of central banks; but the legal rules under which central banks operate and under which paper money is produced. We need to abolish the legal privileges of central banks and monetary authorities. There is no tenable rationale for preventing the citizens from using the best monies and money substitutes. Quite to the contrary, a reform in this direction is necessary for many reasons. Immediate and vigorous action is called for.”(Ibid, p.241)

The logic of private money is that people would decide using the best available money and money substitutes among competitors. What is needed to be done is abolishing states’ and central banks’ monopoly on issuing money. This could show us the parallelism of the texts of Bitcoin with Austrian school better together with crystallized notions of trust, decentralization, competition and corruption.

The notion of private money, defended in the works of Austrian School of Economics and in the texts of Bitcoin, conceptualizes corruption in the terms of market relations with state monopoly in the terms of economics as proposing the solution with private money issued by autonomous enterprises and individuals. Conceptualizing the problems in this way positing the reason behind crisis and corruption is issuing money itself. According to this view, better money leads to a better and free society. Even if Austrian School of Economics argues that they evade economization in their theories with the concepts of catallaxy and praxeology, they still see economics as the fundamental element of the society and freedom. The term economy, in its origin, denotes one’s responsibilities and virtuous management and taking care of the needs of one’s household (Aristotle). Thus in the market we have not a single economy but plural economies interact together for their aims. According to Hayek (1976)⁸⁸ to understand properly what market order is, first we must get rid of the usual, misleading and mostly used descriptions of the term ‘economy’. In the strict sense of the term economy (in which a household, a farm or

⁸⁸ See F. A. Hayek, *Law, Legislation and Order Volume II The Mirage of Social Justice*, The University of Chicago Press, 1976

an enterprise might be called one) “[...]consists of a complex of activities by which a given set of means is allocated in accordance with a unitary plan among the competing ends according to their relative importance. The market order serves no such single order of ends.”(*ibid*, p. 107) The term mostly used for to define social or national economy, but in this sense they are not a single economy but a network of many interconnected economies. They do also carry some of the formal features of an economy but excluding the most important one which is that the activities are not governed “[...] by a single scale or hierarchy of ends”(*ibid*, p. 108). Hayek states that, “The belief that the economic activities of the individual members of society are or ought to be part of one economy in the strict sense of this term, and that what is commonly described as the economy of a country or a society ought to be ordered and judged by the same criteria as an economy proper, is a chief source of error in this field.”(*ibid*) The problem is that whenever we use the term economy for a country or for the world, we are using it in the meaning that these systems are directed to a single united end. But the term economy technically is a term for deliberate arrangements of the means by a single agent. But the market itself cannot be a single scale of ends. There are multiplicities of ends which serve innumerable members. Thus our confusion comes from the ambiguity of the term economy which Hayek suggests to limit its meaning with its original usage with that “[...] it describes a complex of deliberately co-ordinated actions serving a single scale of ends[...]"(*ibid*) Then he suggests to adopt a new term for to describe innumerable interconnected economies which together constitutes the market order. He suggests the word ‘catallactics’.⁸⁹ A term he uses to describe the interrelation and “[...] the mutual adjustment of many individual economies in a market.”(*ibid*, p. 109) It is a special kind of spontaneous order which is produced by the market “[...] through people acting within the rules of the law of property, tort and contract.”(*ibid*) But there is another sphere called praxeology to emphasize individual goal oriented aims in the spontaneous sphere of catallactics. Following Carl Menger, Wagner (2010)

⁸⁹ See *ibid*, p. 108, Hayek argues that, “The term 'catallactics' was derived from the Greek verb *katallattein* (or *katallassein*) which meant, significantly, not only 'to exchange' but also 'to admit into the community' and 'to change from enemy into friend'. From it the adjective 'catallactic' has been derived to serve in the place of 'economic' to describe the kind of phenomena with which the science of catallactics deals. The ancient Greeks knew neither this term nor had a corresponding noun; if they had formed one it would probably have been *katallaxia*.”

argues, there are two distinct categories in economic theory; the exact and the empirical-realistic. While the first one deals with simple phenomena, the second one deals with complex. This distinction resembles the difference between categories of praxeology and catallaxy. He states that,

“Praxeology refers to the idea that individuals act to remove uneasiness by forming plans to secure what they anticipate will be more desired states of being. Praxeology is exact in that it is not subject empirically to disconfirmation, and is sometimes described as a pure logic of choice.”(ibid, p. 25) ⁹⁰

While praxeology concerned with the individual sphere of action and practice, catallaxy denotes the social sphere of interaction. Simply it denotes exchange but generally all interaction between acting agents. Catallaxy belongs to the sphere of history.

“Praxeology and catallaxy denote interrelated realms of activity. Most illustrations of praxeological action take place within catallactical settings. For instance, an entrepreneurial plan, which is a praxeological category, is articulated through monetary calculation, which emerges out of catallaxy. Preference and value are praxeological categories, but their representation through money and prices is possible only inside a catallaxy. Most illustrations of praxeological action involve other people, which is to involve catallaxy.”(ibid)

Thus considering the case of monetary system, financial institutions and monetary calculations are emerged out of catallaxy as praxeological categories. Praxeology is not a separate realm but emerged through catallaxy and involved in catallaxy. Entrepreneurial plans and monetary calculations are praxeological and emerged through catallaxy spontaneously in history.

Instead of Austrian School’s theorization of economy in which rational-economic goal oriented aims of the individuals considered as the sphere of praxeology which

⁹⁰ Wagner, R. E., *Mind, Society, and Human Action – Time and Knowledge in a Theory of Social Economy*, 2010, p. 25

spontaneously rises in the social sphere of catallaxy (economics as the form of the social) which should not be intervened by governments (Hayek 1976, pp. 107-108; Wagner 2010, p. 25), in the U.S Chicago School Neoliberalism the social sphere conceptualized as a form of the economic sphere where state is an economic entrepreneur together with profit and non-profit organizations and also individuals in order to limit government action (Lemke 2001, p.7). Considering Austrian perspective, these approaches of exchange between agents are based on mathematical equations applied to social relations and are called economization (Hayek 2012, pp. 35-36; Barry 1986, pp. 44-45). In the texts of Bitcoin the notions of trust, coding (programming), corruption, competition and decentralization used and Bitcoin proposed as a solution for denoted economic problems of the world. These notions are used in economic sense. The premises in the texts such as “In Code We Trust” and “Strength in Numbers” which tends to see the social from the perspective of mathematical equations, programming and economics. Some prominent part of the texts of Bitcoin conceptualizes the notion of private money similar to Austrian perspective yet fundamentally still sees the social through the economic perspective.

Even if the Austrian School defines economic as a sphere of the social with the notion of ‘Spontaneous Order’ instead of ‘Invisible Hand’ of the classics they still conceptualize freedom and morality (as efficiency, corruption and trust) with the terms of market economics and private property which makes it a possessive definition of individualism (Macpherson 1962, p. 3).⁹¹

⁹¹ See Macpherson, C. B, *The Political Theory of Possessive Individualism*, 1962, Oxford University Press, “The individual, it was thought, is free inasmuch as he is proprietor of his person and capacities. The human essence is freedom from dependence on the wills of others, and freedom is a function of possession. Society becomes a lot of free equal individuals related to each other as proprietors of their own capacities and of what they have acquired by their exercise. Society consists of relations of exchange between proprietors. Political society becomes a calculated device for the protection of this property and for the maintenance of an orderly relation of exchange.”

4.2 The Gold Standard

“The excellence of the gold standard is to be seen in the fact that it renders the determination of the monetary unit's purchasing power independent of the policies of governments and political parties.”

-Mises (The Theory of Money and Credit 1953)

Mises once pointed out what the gold standard stands for: keeping the free-market out of the reach of governments. Once gold was taken as non-political money which is independent of state intervention, safe and sound against devaluation and inflation. It symbolizes unhampered utopia of pure market relations. Following the footsteps of Austrian Economics, texts of Bitcoin also made similar statements. These discussions are not only for a search of a better piece of money, they represent the search for a better society with a better design of money and financial affairs. Gold and Bitcoin are crystallized representations of this search for a liberal utopia.

There have been considerable amount of discussion on the blogosphere and on the Mises Institute's website⁹² about whether bitcoins can be considered as money or not and/or could we interpret Bitcoin with Menger-Mises regression theorem, or whether Bitcoin and gold resemble each other, whether one is superior to other, or whether Bitcoin could be considered as a virtual gold.⁹³ Some even claimed that Bitcoin is the search of the Alchemist: The Philosopher's Stone (Rees 2014, 10 September).

Bitcoin is not the one and only digital search for a better design for money. Online precious metal exchanges although they are not cryptocurrencies are also popular. Anthem Blanchard and his company called Anthem Vault⁹⁴ give service as an online gold and silver exchange which serves their consumers to buy and sell precious metals online and store their purchases for them in the company's vaulting facility.

⁹² See Mises Institute website, viewed on <https://mises.org/>, on 19 July 2015.

⁹³ See Mises Institute website, viewed on <https://mises.org/search/site/bitcoin>, on 14 July 2016.

⁹⁴ See Anthem Vault website, <https://www.anthemvault.com/>, viewed on 12 July 2015

Blanchard states that ““We are a renaissance. Gold is the oldest form of value. We’re just coupling it with the newest, most innovative medium of exchange,” the 35-year-old Mr Blanchard says. “We want to really coalesce with the bitcoin community. That’s the idea.”” (Sanderson 2015, May 15)⁹⁵ Before and after Anthem Vault there were examples for gold backed digital currencies which are developed or not developed with blockchain technology. e-Gold⁹⁶ was one of the first which started a gold backed digital currency. Bitgold⁹⁷ is also giving similar service and enables its users as an online exchange. Giulio Prisco (2015, May 6) states that “[...] BitGold provides some of the advantages of bitcoin payments – faster and cheaper digital cross-border transactions – combined with the advantages of gold as a store of value, and can be seen as a Bitcoin-like system for gold. BitGold seems likely to become an appealing option for those who trust gold more than bitcoin.”⁹⁸ Prisco states that Bitgold enables their users to spend directly from their gold accounts. An announcement of Bitgold says that it is “[...] a software service that connects free vault storage with payment networks, enabling a ‘banking’ like platform for gold. [...] sending and spending gold by email or text message, purchasing gold in vaults around the world, and redeeming physical gold cubes.”(Business Wire 2015, 4 May). Announcement also states that their aim is to, “[...] democratize global access to gold for stable savings, and to make gold useful in micro-transactions using the internet or mobile phones” (Ibid).

⁹⁵ Sanderson, H, Digital Currencies: A Gold Standard for Bitcoin, 15 May 2015, Financial Times, viewed on <http://www.ft.com/intl/cms/s/0/38d02382-f809-11e4-962b-00144feab7de.html#axzz3fci3v1GB> , on 22 May 2015

⁹⁶ See *ibid*, “The new ventures will have to overcome the history of past failures such as e-Gold, one of the first attempts to start a gold-backed digital currency in the late 1990s. After it grew to more than 4m accounts and over \$60m in deposits, Douglas Jackson, its founder and an oncologist from Florida, pleaded guilty in 2008 to running an illegal money transmitting business. Federal investigators charged that “criminals of every stripe gravitated to e-gold as a place to move their money with impunity”.

The company identified 12,869 accounts containing funds connected to criminal acts including child pornography, credit card fraud, identity theft, investment fraud and the sale of stolen or non-existent goods, the DoJ said.”

⁹⁷ See Bitgold website, <https://www.bitgold.com> , viewed on 12 July 2015

⁹⁸ Prisco, G, BitGold Announces a Bitcoin-like System for Gold Storage and Payments, 6 May 2015, Bitcoin Magazine, viewed on <https://bitcoinmagazine.com/20291/bitgold-announces-bitcoin-like-system-gold-storage-payments/> , on 13 July 2015.

One of the more recent examples for gold backed cryptocurrencies is Digix gold tokens claimed as stable against price volatility of other cryptocurrencies.⁹⁹ Another recent development is OneGram which is claimed as gold backed and Sharia-complaint cryptocurrency based on Dubai (Gautham 2017, May 28).

Other than gold backed enterprises there are many discussions about Bitcoin is the online equivalent of Gold or an alternative for Gold (Rogajanu et al 2014; CBS News | Bitcoin and the Future of Money 2014, 23 March; Lingenheld 2015, March 18; Sanderson 2015, July 1). Fortune website (2015, March 19) compares advantages and disadvantages of Bitcoin and Gold. Yet they declare, highlighting the political side of money, “[...] it’s difficult to declare a clear winner in this hard-money rumble. Much of gold and Bitcoin’s value is speculative, based on investors’ predictions about how political events are likely to unfold.”(Ibid) Rees (2014, March 19); Smart (2014, November 13; 2015, March 21); Kaminska (2015, May 27) are also made comparisons and critics of Bitcoin and gold. Bitcoin vs. Gold website asks “is Bitcoin the new gold?”¹⁰⁰ and also make comparison charts for users to see Bitcoin and gold relative prices.¹⁰¹ According to McMaken’s (2013, December 27) interview with Patrick Byrne, the CEO of online retailer Overstock.com which accepts bitcoins,

“The long-run value of all fiat money is zero. If you believe in limited government, you want to have a monetary system that is based on something where no government mandarin can just create money with a stroke of a pen. Gold is a solution, we're not going to bring back the gold standard any time soon. We're not going to get rid of the Federal Reserve any time soon, so bitcoin is a step in the right direction” (Ibid).

After the success of Bitcoin many different cryptocurrencies have been introduced in the markets which are called altcoins (alternative coins).¹⁰² Many entrepreneurs modified the open source code of Bitcoin and its Blockchain technology for making

⁹⁹ See Digix website, viewed on <https://www.dgx.io/>, on 29 May 2017.

¹⁰⁰ See Bitcoin vs. Gold website, viewed from <http://bitcoinvsgold.com/>, on 13 July 2015.

¹⁰¹ See Bitcoin vs. Gold website | Bitcoin vs. Gold Charts, viewed from <http://bitcoinvsgold.com/bitcoin-vs-gold-charts>, on 13 July 2015.

¹⁰² See Altcoins website for more, viewed on <http://altcoins.com/>, on 18 July 2015.

their own currencies. According to Crypto-Currency Market Capitalizations website, right now there are 741 cryptocurrencies, 119 assets and 4002 markets available online.¹⁰³ Together with Bitcoin, cryptocurrencies can be converted to each other and to traditional currencies on exchange websites. Many have their own unique features for their customers' needs and benefits although many considered as minor changes. According to Bitcoin Wiki website Just to name few altcoins; Litecoin¹⁰⁴, Dogecoin¹⁰⁵, Dash¹⁰⁶ and Ethereum¹⁰⁷ are quite popular in cryptocurrency communities. I take the competition among these currencies as an example for free market monetary system. In the cryptocurrency markets people are free to chose most decent and sound one among competitive currencies for their own needs and aims as consumers.

Besides many who posit the resemblance between Bitcoin and gold, there are also similar statements which argue Litecoin, as a second to its successor Bitcoin, is much like silver to gold. Bitcoin enthusiast and co-founder of social media advertising company *@Kuhcoon*, Andrew Torba, states that, "People are speculating that litecoin may be 'the silver to bitcoin's gold'. Some argue that as bitcoin's value rises over time, smaller currencies will become more common for everyday transactions"(Torba 2013, November 27). Tweedy (2013, 13 June), Fernando (2015, 20 April), Kate (2014, 5 May) all made similar comments and stated the resemblance between Litecoin and silver to Bitcoin's gold. Resemblance here is important for denoting the competition between cryptocurrencies. Competition between private moneys is important for highlighting the parallelism with the Free-Market Monetary system of Austrian thinkers where many different currencies are in competition for a

¹⁰³ Current market capitalization is \$96.770.470.764, 24 hour market volume is \$3.048.337.248, Bitcoin percentage of total market capitalization is %45, Crypto-Currency Market Capitalizations website, viewed from <http://coinmarketcap.com/currencies/views/all/> , on 6 June 2017.

¹⁰⁴ Litecoin website, viewed on <https://litecoin.org/> , on 18 July 2015.

¹⁰⁵ Dogecoin website, viewed on <http://dogecoin.com/> , on 18 July 2015.

¹⁰⁶ Dash website viewed on <https://www.dashpay.io/> , viewed on 18 July 2015.

¹⁰⁷ Ethereum website viewed on <https://www.ethereum.org/> on 29 May 2017.

more efficient system in which people as consumers freely choose between among many according to their needs.

Thinking together with private money of Hayek gives us better perspective for strengthening the parallelism. Although he advocates for abolishing states monopoly on money in favor of private entrepreneurship of issuing money, Hayek (2008) was also skeptical for using gold standard as money in some aspects. He argues that, there are two main problematic for issuing money, first one is the standard of value for money, and the second one is the selecting an institution for issuing money. If all obstacles in laws were removed for issuing private money, people will tend to choose the only sound money they know and understand: the gold standard.

“But this very fact would after a while make it very doubtful whether gold was for the purpose of money really a good standard. It would turn out to be a very good investment, for the reason that because of the increased demand for gold the value of gold would go up; but that very fact would make it very unsuitable as money. You do not want to incur debts in terms of a unit which constantly goes up in value as it would in this case, so people would begin to look for another kind of money: if they were free to choose the money, in terms of which they kept their books, made their calculations, incurred debts or lent money, they would prefer a standard which remains stable in purchasing power” (Ibid, p. 19).

For Hayek, this dichotomy of investment versus daily use of money will inevitably lead to turning the gold standard to an investment which makes it unsuitable for pocket money/spending money. If issuing private money in free-market would be possible, then it will be possible for people to choose the soundest one available according to their own interests. In many aspects Bitcoin is also not suitable for to be used as general medium for exchange as money because of its highly volatile price yet it could be a sound investment.¹⁰⁸ Technology and finance writer and editor Mitchell Hall (2013, April 13) posits that the currency is both highly fungible and untraceable (like cash) and theoretically inflation-proof (like gold) could be interpreted with Hayek’s skeptical approach to gold standard. However according to writers Forrester and Solomon on their book Bitcoin Explained (2013), Bitcoin is

¹⁰⁸ Bitcoin Charts website for price volatility and more, viewed on <http://bitcoincharts.com/charts/bitstampUSD#rg1460ztgSzm1g10zm2g25zv>, on 18 July 2015.

largely an imaginary piece of code which has no intrinsic value unlike gold and silver which also have practical uses to make some objects. What is common for all these arguments are that bitcoins are also relatively rare similar to silver and gold and this makes them valuable.¹⁰⁹ Managing Director of Coindesk news website Ryan Selkis states that volatility of bitcoin prices stemmed from the fact that it is a two-faced currency: it is both a currency and an investment. “Bitcoin’s price swings stem from the fact that it is simultaneously ‘e-cash’ (a currency) and ‘e-gold’ (a means of investment). This is problematic because combining the two usually means that one isn’t acting as it should” (Selkis 2014, 11 February). Contributing editor and writer Doug Henwood (2014, 30 April) argues that Bitcoin resembles gold in many ways for not just its limited quantity but also for what it represents for investors.

“Keynes once called gold “part of the apparatus of conservatism” for its appeal to rentiers who loved austerity because it preserved the value of their assets. Bitcoin serves a similarly totemic purpose for today’s cyber-libertarians, who love not only the statelessness of it as money, but also its power to subject the institutional banking system to “disruption” (one of the favorite words of that set). And like gold, Bitcoin is deflationary. There’s a limit on how many bitcoins can be produced, and it gets more difficult to produce them over time until that limit is reached Keynes once called gold “part of the apparatus of conservatism” for its appeal to rentiers who loved austerity because it preserved the value of their assets. Bitcoin serves a similarly totemic purpose for today’s cyber-libertarians, who love not only the statelessness of it as money, but also its power to subject the institutional banking system to “disruption” (one of the favorite words of that set). And like gold, Bitcoin is deflationary. There’s a limit on how many bitcoins can be produced, and it gets more difficult to produce them over time until that limit is reached” (Ibid).

As ‘gold-like money’ Bitcoin represents a financial wealth and conservatism for contemporary libertarians who search a solid way for their investments. The designs of money in these discussions and its similarity with gold do not only refer to a better financial system, they also highlight and posit an ideal society founded upon this

¹⁰⁹ See Forrester, D. and Solomon, M, Bitcoin Exposed: Today’s Complete Guide to Tomorrow’s Currency, 2013, Kindle Edition, p. 10, They also state that “Bitcoins are like the rewards for a correct answer to a certain math problem. Both the problem and the answer are completely unique. There will be a limit of about 21 million [...] of these special solution rewards known as the “Bitcoin.” Those dabbling in the complicated technicalities of Bitcoin, such as programmers and promoters, call it a “crypto-currency.” This invented term refers to the form of mathematics that generates the rarity behind the solutions that earn the Bitcoin rewards.”

financial design. For the adherents, Bitcoin does not only resemble gold like currency, it also represents power of the free-market.

(Although Bitcoin' and altcoins' texts of anti-government and free monetary system arguments resemble so much of Austrian School thinkers' approaches, there may be more to discover and criticize within the theories of these thinkers. There have been considerable amount of discussion on the blogosphere and on the Mises Institute's website¹¹⁰ about whether Bitcoin can be considered as money or not and/or could we interpret Bitcoin with Menger-Mises regression theorem).¹¹¹

4.3 Searching for the Ideal Money

“For in every country of the world, I believe the avarice and injustice of princes and sovereign states, abusing the confidence of their subjects, have by degrees diminished the real quantity of metal, which had been originally contained in their coins.”

-Adam Smith (An Inquiry into the Nature and Causes of the Wealth of Nations 1776)

Although there are utopian imaginations for abolishing money altogether, there is also another line of thought which aims to re-imagine money and its radical transformation. Nigel Dodd explains this search as “[...] images of utopia defined not by money's absence, but rather its radical transformation” (Dodd 2012, p.147). There are attempts for changing our ideas for creation and exchange of wealth and value, but there are also some attempts for changing the design of money itself and the price system. He explains that “[...] there are now several thousand alternative monetary systems in operation worldwide, using a range of different media and accounting systems – LETS, Time Dollars, mutual credit, peer-to-peer lending schemes such as

¹¹⁰ See Mises Institute website, viewed on <https://mises.org/>, on 19 July 2015.

¹¹¹ See Murphy, R. P, The Origin of Money and Its Value, 2003, 29 August, “According to Menger, money emerged spontaneously through the self-interested actions of individuals. No single person sat back and conceived of a universal medium of exchange, and no government compulsion was necessary to effect the transition from a condition of barter to a money economy.”, viewed on <https://mises.org/library/origin-money-and-its-value>, on 6 June 2017.

Whuffie and Kiva, and digital currencies such as Ripple, Ven, Pecunix and Bitcoin[...]”(Ibid, p. 147)¹¹² These are all designed differently for their special purpose or purposes such as protecting local growth, resisting financial exclusions or “[...]even challenge what many believe to be the persistent and damaging hegemony of states and banks in the way that money is produced and managed”(Ibid). Dodd argues that not all of these projects have utopian aims but many of them affected by ‘utopian spirit’. I also interpret projects such as Bitcoin, Robin Hood Tax¹¹³ and Positive Money¹¹⁴ in this regard. The notion of perfect or ideal money or a better financial system is highly related to the notion of perfect society. In all these projects which aim ‘better’ financial design, liberty is conceptualized through individual financial freedom and defined in a possessive way.

It has been argued that the project of Bitcoin is the search for the ideal money of the mathematician John F. Nash Jr. (Patron 2015, 13 June; Gautham 2015, 14 June). Texts on coding of the social with program coincide with economization and seeing the social through mathematical equations.¹¹⁵ Premises such as “In code we trust” and “Vires in Numeris” crystallize the perspective of the texts taken together with the Game Theory and mathematical utility in economics (Nash Jr. 2003, 27 October). Twentieth century economists’ predominance over liberalism and libertarianism’s intellectual foundations is mostly called economism (Barry 1986). In the broad sense of the word this approach is quite utilitarian. The reason behind this approach is that the economic science itself is a utilitarian discipline especially under the dominance of neo-classical micro-economics equations. According to Hayek, exploration is only possible in a world with free choosing individuals. He argues that economic science can only applicable to assert the connection between means and ends and there is no such thing as liberal end for individuals. Liberalism only tells and shows us the

¹¹² ibid, p. 147

¹¹³ Robin Hood Tax | Why, viewed on <http://www.robinhoodtax.org/why>, on 25 July 2016

¹¹⁴ Positive Money | FAQ, viewed on <http://positivemoney.org/faqs/>, on 22 January 2016

¹¹⁵ Although there are some perspectives which try to reconcile behavioral game theory and experimental economics with Austrian School of Economics (Cevolani 2011; Foss 1999), they are fundamentally different considering the sphere of praxeology rises through the catallaxy which is spontaneous social sphere.

plurality of ends. Hayek states that “[...] each particular end being the necessarily subjective and rationally undemonstrable choice of each individual” (Ibid, p.45). Barry critically asks “For who is that ‘economic man’ around whose *free* choices the economist constructs his theories of economic regularities if he is not ‘liberal’ man, albeit stripped of his moral virtues and presented as a mere ‘postulate’ of a bloodless theory?”(Ibid, p.44) Thus economic reductionism (economism) of the spontaneous sphere of the social must be avoided. Yet for the case of Bitcoin in this thesis, for the most part, texts based on economic reductionist interpretation of the society. Thus, in the example of Bitcoin, the search for a better society is founded upon a financial utopia.

Economic reductionist approach to money and society ignores the sociality of money. Classical interpretations of money (Simmel, Weber) in the modern world conceptualize it as a key instrument for the rationalization of social life which caused the development of rational economic markets. Transformation power of money comes from its complete indifference to values. Money conceptualized as the most abstract and impersonal element in human life (Zelizer 1989, p. 344; Deflem 2003, p. 77). But the classical interpretations of money do not make any distinctions between different kinds of money. In the classical interpretations difference of money conceptualized as quantity. But different kinds of monies may have different meanings for people as their quality. The model of special monies of Zelizer (1989) offers a different perspective. Classical definition of modern money is based on single type of general-purpose money. According to Zelizer, these theories focus

“[...] exclusively on money as a market phenomenon, it fails to capture the very complex range of characteristics of money as a nonmarket medium. A different, more inclusive coding is necessary, for certain monies can be indivisible (or divisible but not in mathematically predictable portions), nonfungible, nonportable, deeply subjective, and therefore qualitatively heterogeneous. From this perspective unlimited freedom and power of market money seems unrealistic assumption, there are extra economic cultural and social factors which shapes, limits and controls money (Zelizer 1989).¹¹⁶

¹¹⁶ See Zelizer, V, The Social Meaning of Money, American Journal of Sociology, Vol. 95, No. 2 (Sep., 1989), pp. 342-377, “The model of special monies thus challenges the traditional utilitarian model of market money by introducing different fundamental assumptions in the understanding of money:

Contrary to Dodd's and Zelizer's arguments, Polillo (2009) makes a different range of analysis for the question of "Does money flow from the top and lead to the homogenization of local activities, or can it be incorporated at the level of daily interaction?" (p. 1). Dodd's Neo-Kantian perspective (following Simmel) criticized for being too abstract that can never corresponds exactly to an empirical manifestation. Zelizer criticized for being limited, "[...] focus is instead on micro-properties and meanings" (p. 2). Polillo conceptualizes these questions as different ends of a continuum. Money can be both unitary and differentiated: money has multiple logics. I interpret crypto-currencies with Polillo's (2009) multiple logics. For the adherents it means an alternative world of financial freedom and freedom from government surveillance of commercial affairs. While mainstream texts operate to compare Bitcoin with market monies such as Dollars, Euros and gold, alternative coins open the possibilities for subjective modifications. Specializations with alternative coins could be considered as special monies in which programmers and users invest subjective values. Yet ultimately these qualitative changes determined quantitatively by seeing and measuring the social through mathematical equations and economics.

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1. While money does serve as a key rational tool of the modern economic market, it also exists outside the sphere of the market and is profoundly shaped by cultural and social structural factors.
 2. There are a plurality of different kinds of monies; each special money is shaped by a particular set of cultural and social factors and is thus qualitatively distinct. Market money does not escape extra economic influences but is in fact one type of special money, subject to particular social and cultural influences.
 3. The classic economic inventory of money's functions and attributes, based on the assumption of a single general-purpose type of money, is thus unsuitably narrow. By focusing exclusively on money as a market phenomenon, it fails to capture the very complex range of characteristics of money as a nonmarket medium. A different, more inclusive coding is necessary, for certain monies can be indivisible (or divisible but not in mathematically predictable portions), nonfungible, nonportable, deeply subjective, and therefore qualitatively heterogeneous.
 4. The assumed dichotomy between a utilitarian money and nonpecuniary values is false, for money under certain circumstances maybe as singular and unexchangeable as the most personal or unique object.
 5. Given the assumptions above, the alleged freedom and unchecked power of money become untenable assumptions. Culture and social structure set inevitable limits to the monetization process by introducing profound controls and restrictions on the flow and liquidity of money. Extraeconomic factors systematically constrain and shape (a) the uses of money, earmarking, for instance, certain monies for specified uses; (b) the users of money, designating different people to handle specified monies; (c) the allocation system of each particular money; (d) the control of different monies; and (e) the sources of money, linking different sources to specified uses." (see p. 351)

Considering numerous crypto-currencies in the crypto-currency market as they are built and modified according to different needs and purposes make them unlike market money but special monies. Privatization of money in the texts, come together with individuation of money. Each has different attributes and special uses therefore have subjective meanings for their users. Yet most of them considered as slightly different minor changes (Bitcoin Wiki website | Altcoin, n.d).

The social foundations of Bitcoin are quite interesting, because of aiming to be/being lack of any social foundations. It is a technology to bypass the social foundations. Thus the techno utopia of Bitcoin is aiming to eliminate the nuances of social life such as “[...] trust, incompetence, and political expediency [...]” (Dodd 2014, p. 371).

“Bitcoin’s initial appeal was rooted in the promise of machines, its subsequent life looks just likely to be marked by the reemergence of the social life of money. This situation ought not to be suprising. As sociologists of science and technology have been arguing for a long time, technological artifacts cannot simply enact organizational forms –in this instance, a monetary system- on their own. Human, social, and political factors inevitably emerge as those who interact with and use these artifacts both shape and are shaped by their practical use [...]” (Ibid).

In the case of Bitcoin there is a close analogy of highlighting the money as a thing which is capable of shaping social system with its technology which is free from any human intervention. Thus the idea behind this technology denies and trying to bypass the social life of money and treats “money as a thing, not a process.”(Ibid, p. 372) Yet unlike for some people who see Bitcoin as a financial and speculative bubble of value and attention, for its adherents “Bitcoin presents an alternative to a world where online payments have to pass through companies like PayPal, where government agencies are able to surveil one’s commercial dealings and potentially impede transactions they deem objectionable, and where government officials and financial actors collude to manipulate the value of money” (Mauer et al. 2013, p. 262). Even if in its texts Bitcoin aims to cut out intermediaries to create a “free market” where individuals able to exchange directly between each other, Bitcoin’s combination of “practical materialism with politics of community and trust” puts its

code “in front and center”(Ibid) With embedding the sociality in a code with trust, its promises of materiality, privacy and community become a stuff of credit. Specifically because of these reasons Bitcoin,

“[...] provides a useful reflection on the sociality of money, despite its embedding of that sociality of trust in its code itself. In this world, there is no final settlement as with a state demanding payment in the form of taxes or tribute and trust in the code substitutes for the (socially and politically constituted) credibility of persons, institutions, and governments. It is this not the anonymity or the cryptography or the economics that makes Bitcoin novel in the long conversation about the nature of money” (Ibid).

CHAPTER 5

CONCLUSION

“Others will dream that I am mad, while I dream of the Zahir. When every man on earth thinks, day and night, of the Zahir, which will be dream and which reality, the earth or the Zahir?”

-Jorge Luis Borges (The Zahir)

My aim is to show that how the texts of Bitcoin conceptualizes individual liberty in terms of finance and use it for my analysis as a case for Neoliberal sociality. We are governed through our ‘freedom’ in the Neoliberal governance. The logic underpinning this mode of governance is individual liberty of enterprise in competitive environment based on the truth of objective market laws.

Online community of cryptocurrencies and foundations are important for the case as entrepreneurs and consumers communicate, discuss, give feedbacks and take decisions for the development of the cryptocurrencies. I take these interrelations of profit and non-profit, governmental and non-governmental organizations’ interactions as a form of Advanced liberal government (Rose 2004, pp. 139-140). I approach the expertise of developers and community of Bitcoin as an example for counter-expertise of Rose (2004, p. 87). Counter-expertise of developers and enthusiasts against state experts is important as market rationality de-statize the practices of government in accordance with consumer demand, accountability and competition (Rose 1996, p.41). Although this counter-expertise of individuals’ conceptualized as no-authority in the texts of crypto-currencies, these counter-expertise inherently aim to replace their own authority with the authority of financial institutions. They are allegedly opposed to the state and financial institutions’ authority for financial affairs yet at the same time they are following a similar trail of

thought in accordance with the free-market rationality. As Foucault (1976) argues that the individual is not something which power strikes, dominates and crushes or limits as a material. Instead individual is the effect of power which creates individual for where it extends. “In fact, it is already one of the prime effects of power that certain bodies, certain gestures, certain discourses, certain desires, come to be identified and constituted as individuals” (Ibid, p. 98). The power constitutes the individuals but at the same time individual is the ‘vehicle’ of power. Individuals is not something passively waiting for domination of application of power, but it is a point where power flows through and constantly constitutes ‘the individuals’ and itself as a net. Government is a way for exercising power over individuals (Burchell 1996, p. 19). In the Neoliberal mode of governmentality less government does not mean less governance. Power of the free-market governs through freedom.

As argued in the second and third chapters, notions such as decentralization, competition, trust, transparency and corruption and are used as traits of free-market to posit problems and their solution with crypto-currencies. Notion of decentralization used parallel to both political economy and internet censorship with overlapping them together as positing a technological solution. Trust, transparency and corruption are also used in this manner. Notion of corruption used for denoting the inefficiency of the market and criticizing central decision making of the existing institutions. A ‘trust-less’ system is aimed for the solution of existing financial system which means trusting technology underlying cryptocurrencies and counter-experts ability to review and develop instead of financial institutions and their decision making. Cutting out the question of morality, with denoting that money is apolitical, parallel to the ‘value free’ approach of the Austrian School together with trusting technology like a *dues ex machina* as solution for posited problems while positing collectives causing troubles, yet as numerous examples show that private entrepreneurs also could be ‘corrupt’.

Bitcoin is claimed as a solution for not just only financial efficiency but to change society altogether as a revolutionary force. As freedom of speech and decentralization advocate Naomi Hayese (PhD) states,

Bitcoin, I will argue, is not just an innovation in banking and finance, but at its core, concerns a challenge to governance systems that can lead to an evolution of humanity. For so long, social progress has stagnated, with the selfish and callous sides of man taking the upper hand. Unprecedented levels of government and corporate corruption in recent years have signaled a breakdown of systems of accountability. This deep failure of democracy has exposed the existence of individuals who exhibit a total lack of conscience and empathy for others. They embody a dark side of individuality, with aggressive and narrow selfish desires that often come in conflict with the public good. Now, the destructive actions of this minority seem to have become a threat to civilization itself. We shall explore how Bitcoin provides a new model of governance that is resilient to these adversarial forces (Hayase 2016, 15 July).

Projects of crypto currencies define the notion of ‘freedom’ in financial and market terms and end up having similar problems with the former industry of banking and finance. These notions highlighted in the texts underline the problems and posit solution for the market failure. With using these terms the notion of freedom defined as financial freedom and limited with the sphere of market relations. Notions used widely such as decentralization, trust, transparency, corruption etc. are all financial conceptualizations to define crypto-currency market although some discussions went beyond the scope of market. But to highlight it again, the potential of cryptocurrencies is the efficiency they might bring to financial transactions, not to change society altogether.

Texts of Bitcoin exceed the borders of financial freedom and conceptualize freedom in a possessive way. The notion of ideal money is highly related with perfect society. The texts feed from programming, mathematics and the Austrian School of Economics (although there are fundamental inconsistencies). Conceptualizing social through the perspective of economy, programming and mathematical equations make it autistic and fall into the error of economization. The language of finance can only show us freedom according to financial conceptualization of freedom. Cryptocurrencies could be practical and useful tool as making transactions more efficient (although there are numerous failures showing the opposite), yet financial efficiency does not necessarily bring liberty.

Writings of both adherents and critics are highlighting financial features of cryptocurrencies while the labor process is almost backgrounded completely, except engineering, programming and maintenance levels without referring to any labor involved during the production of electronic materials used in the systems (Vincent 2016, 4 May). Engineering and programming could be interpreted as counter-expertise level of the advanced liberal sociality which tries to take over the authority from financial institutions to themselves.

The notion of regulation in the discussions can be considered as the authority of state to make intervention to economy. The dichotomy of conceptualizing freedom in an antagonism to state in the texts is misleading. The question of ‘who do the planning?’ in the decentralization discussions is about the authority of making decisions. The discussions of decentralization are for leading the way for making a solid ground for advocating free-market. Objective laws of market are taken as an authority in the texts of crypto-currencies. But there is another layer, which could be found in the texts, issuing money is built in the coding of the program. Here the play of language lead freedom-state dichotomy, while the communities ability for developing, reviewing and coding of the program trying to replace the authority of central banks and financial institutions.

Under this perspective then I interpret adherents and critics writings as a conflict for controlling the financial institutions whether public institutions or private sector. These conflicts rise between the old financial institutions and the new who would like to control the source of the wealth. Writings of bringing regulation to the new market or integrating cryptocurrencies with the former legislations represent the view of the old institutions while the ‘freedom’ front represents libertarians aiming for ‘pure market’ relations (Smart 2014, 13 October; Evans-Pritchard 2016, 13 March; Castillo 2016, 6 June; Dhaliwal 2016, 17 August; Popper 2016, 11 October).

Nevertheless all these arguments of critics and adherents from both camps (statist or anti-statist) fall within the same discursive field of political economy, with the touch

of technology as a saver from financial catastrophes, which can only show us freedom from the perspective of finance.

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APPENDICES

APPENDIX A: MISCELLANEOUS CRYPTOCURRENCY WEBSITES

Cryptocurrency Charts and Analytics

Bitcoin Analytics <http://bitcoin-analytics.com/>

Bitcoin charts <http://bitcoincharts.com/>

BitcoinWisdom <https://bitcoinwisdom.com/>

Bitcoinity <http://bitcoinity.org/markets>

btcharts <http://btcharts.com/>

Bitcoin Charts <http://bitcoincharts.com/>

Bitcoin vs. Gold website | Bitcoin vs. Gold Charts, viewed from <http://bitcoinvsgold.com/bitcoin-vs-gold-charts> , on 13 July 2015

Cryptonica <http://cryptonica.com/#/bitstamp>

Crypto Coin Charts | Cryptocurrency Exchanges/Markets List, viewed on <http://www.cryptocoincharts.info/markets/info> , on 5 January 2015

Crypto-Currency Market Capitalizations Website, viewed from <http://coinmarketcap.com/currencies/views/all/> , on 15 February 2015

Tradingview <https://www.tradingview.com/>

Zero Block <https://zeroblock.com/>

Cryptocurrency Exchange Websites and e-Wallets

OKCoin <https://www.okcoin.com/>

Btc-e <https://btc-e.com/>

Bitstamp <https://www.bitstamp.net/>

Kraken <https://www.kraken.com/>

Cex.io <https://cex.io/>

Hitbtc <https://hitbtc.com/>

Bitcoin Wiki Website | Trade, viewed on <https://en.bitcoin.it/wiki/Trade#Games> , on 23 August 2015

Local Bitcoins Website, viewed on <https://localbitcoins.com/> , on 16 September 2015

Bitcoin.org Website |Choose Your Wallet, viewed on <https://bitcoin.org/en/choose-your-wallet> , on 5 January 2015

Bitcoin ATM services

Bitaccess Website, viewed on <https://www.bitaccess.co/> , on 27 November 2015

Lamassu Website, viewed on <https://lamassu.is/> , on 27 November 2015

Genesis Coin Website, viewed on <https://bitcoinatm.com/> , on 27 November 2015

General Bytes Website, viewed on <http://www.generalbytes.com/> , on 27 November 2015

Skyhook Website, viewed on <http://projectskyhook.com/> , on 27 November 2015

Coin ATM Radar Website, viewed on <http://coinatmradar.com/> , on 27 November 2015

Find Bitcoin ATM Website, viewed on <http://www.findbitcoinatm.com/> , on 27 November 2015

Money Wiki Website |Alternative Currencies:BTM, viewed on <http://themoneywiki.com/wiki/alternative-currencies-btm-bitcoin-atms> , on 5 January 2015

Bitcoin Debit Card Websites

BitPay Website, viewed on <https://bitpay.com/visa/> , on 19 August 2016.

Xapo Website, viewed on <https://xapo.com/card/> , on 19 August 2016.

Shift Website, viewed on <https://www.shiftpayments.com/> , on 19 August 2016.

Cryptocurrency Mining Pools

Bitcoin Wiki Website | Comparison of Mining Pools, viewed on https://en.bitcoin.it/wiki/Comparison_of_mining_pools , on 21 October 2015

APPENDIX B: TÜRKÇE ÖZET

BİTCOİN ÖRNEĞİNDE BİR NEOLİBERAL TOPLUMSALLIK İNCELEMESİ

2007-08 finansal krizi, ekonomistler tarafından, büyük buhrandan sonra tarihte yaşanmış en büyük krizlerden birisi olarak nitelenmiştir. Bu süreçte krize neden olduğu düşünülen kurumlar ve bu kurumların politikaları eleştirilmiştir.

Krizi aşmaya yönelik çözüm arayışları birçok farklı organizasyonun ortaya çıkmasına sebebiyet vermiştir. ‘Occupy wall street’, ‘Positive Money’ ve ‘Robin Hood Tax’ en bilinen örneklerdir. Bu organizasyonlar, her biri kendi amacı doğrultusunda, farklı çözüm önerileri getirmiş ve bir araya girmişlerdir. Hepsinin hedefinde krize neden olduğu düşünülen kurumların ortadan kaldırılması ya da bu kurumların reformu yer almaktadır. Kriğin merkezinde bu kurumların etkin çalışmaması, yolsuzluk, büyük şirketlerin çıkarları ve hükümetlerin bu şirketlerle olan işbirliği yer almaktadır.

Avusturya Ekonomi Okulu’na yakın olan yazarlar krizin nedenini benzeri bir şekilde devletin izlediği para politikalarına bağlamıştır. Devletin finans kurumlarının reformu ve özelleştirilmesi tek çare olarak gösterilmiştir. Bu açıdan bakıldığında kriz sonrası ortaya çıkan hareketler ile Avusturya liberterlerinin görüşlerinin her ikisinin de merkezinde finansal bir reform yatmaktadır.

Bu tartışmalar sürecinde kim ya da kimler tarafından yapıldığı belirsiz bir bilgisayar programı yayınlanmıştır ve bu tartışmalara paralel bir şekilde var olan sorunlara bir çözüm getirdiğini iddia etmiştir. Bitcoin adlı bu programın piyasanın etkinliğinin azalmasına neden olduğu söylenen bankalar gibi finansal kuruluşları ve devlet müdahalelerini aştığı söylenmektedir. Bu program sayesinde kişiler merkez

bankalarının para basma tekelini aşarak kendi paralarını üreterek, aracılardan hariç bir şekilde gönderim yapabilmektedirler.

Bu tezde Bitcoin hakkında yazılan yazılar Avusturya Okulunun Neoliberal söylemi için bir örnek olarak ele alınmıştır. Avusturya Okulu teorilerinde özgürlük devletin yokluğunda bireysel olarak yaşanmaktadır. Bu yokluk, devletin piyasaya müdahale etmemesi zeminine kurulmuştur. Bitcoin hakkındaki yazılar da özgürlüğü birey-devlet ikiliğinde ele almaktadır. Bitcoin, aracı finans kuruluşları ve devlet müdahalelerini aşarak otoritenin kontrolünü bertaraf ettiğini iddia etmektedir. Özgürlüğün devlet-birey ikiliğinde tanımlanması onun mevcudiyetinin otoritenin yokluğunda ortaya çıktığına işaret etmektedir.

Bu tezin amacı Bitcoin'in nasıl işlediğini anlatarak Foucaultcu bir metin analizi yapmaktır. Nihai amaç saf piyasa ilişkilerinin Neoliberal yönetim anlayışı ile nasıl ortaya çıktığını anlatmaktır. Tezin ana sorunsalı Neoliberal yönetim piyasa ilişkilerinin özgürlük kavramını nasıl sadece piyasa ilişkileri tarafından üretilen finansal özgürlük anlayışına indirgediğini tartışmaktır. Bitcoin metinleri ürettikleri teknoloji ile var olan finansal kurumları ve kuruluşları serbest piyasa mantığı ile aştığını iddia etmektedir. Bu sorunsal etrafında Bitcoin'in kendisinin saf piyasa ilişkileri mantığı ile nasıl bir yönetim getirmeyi hedeflediğini tartışmak bu tezin amacıdır.

Avusturya Okulu serbest piyasa mantığı ve para politikaları çalışmaları ile bilinmektedir. Bu tezin önemi, bu çalışmaların ışığında dijital para olarak Bitcoin'i tarihi ve ampirik bir örnek olarak okumaktır. Engelsiz piyasa ilişkilerinin sayesinde özgürleşeceği iddia edilen finansal ilişkiler ile Bitcoin metinleri getirdiği para ve finansal tasarım etrafında ideal bir toplum kurgusuna işaret etmektedir. Devletin ve finans kuruluşlarının para üretimi üzerindeki otoritelerini aştığı iddia edilen Bitcoin'in kimse tarafından kontrol edilmediği söylenmektedir. Bu kurumların aşılması bireysel özgürlük olarak tanımlanmaktadır. Bu tezdeki ana amacım, bireysel özgürlüğün bu şekilde tanımlanmasının ne tür bir yönetim olduğunu tartışmaktır.

Bitcoin hakkında yazılan yazılar ve tartışmalar tezin ampirik verisi olarak kullanılmıştır. Çeşitli haber sitelerinde yazılan yazılar, döviz değişim sitelerindeki yazılar, kripto para sivil toplum kuruluşlarının sitelerindeki yazılar, elektronik posta gruplarındaki yazılar ve kişisel bloglardaki yazılar veri olarak kullanılmıştır. Yazılımcı ve girişimcilerle yapılan röportajlar ve dergilerde yayımlanan yazılar da kullanılmıştır.

Bu yazıların incelenmesindeki amaç girişimcilerin, yazılımcıların ve kullanıcıların ifadelerinin Foucaultcu bir metin analizini yapmaktır. Bu analiz metinlerden çıkartılan ana temalar üzerinden yapılmıştır. Bu metinlerin sorunsalları, Bitcoin ile neye çare olmak istediklerini göstermektedir. Teknoloji ile birlikte *merkezsiz*¹¹⁷, özerk para olarak öne sürülen şey finansal yıkımlardan kurtuluş olarak gösterilmektedir. Bu anlayış Avusturya Okulunun serbest piyasa para sistemi olarak adlandırdığı teoriyle güçlü bir paralellik içerisindedir. Avusturya Okulu çalışmaları üzerinden Bitcoin konusunu okumak, altlarında yatan rasyonaliteyi açıklamak ve benzerliğini göstermek için faydalı olmuştur.

Tezin amacı ise yapılan analiz üzerinden Neoliberal yönetimin nasıl işlediğini göstermektir. Bitcoin üreticileri ve destekleyicilerinin kimse tarafından kontrol edilmiyor ve devlet ve finans kuruluşlarının müdahalelerinden, düzenlemelerinden bağımsız oluşu iddialarına karşın piyasanın mantığının nasıl işlediğini göstermektir.

Bitcoin üzerine yazılan metinlerin incelenmesindeki amaç Neoliberal yönetimin dildeki baskınlığını, hâkimiyetini göstererek serbest piyasa hakikatinin nasıl üretildiğini anlatmaktır. Bu hakikatin objektif yasalar gibi üretiliyor oluşu Neoliberal toplumsallık örneği olarak kullanılmıştır.

Buradaki amaç kapitalin dilini ve ekonominin denklemlerini kullanmadan analiz yapma çabasıdır. Denklemler sermaye birikiminin mantığı üzerinden bize ekonomiyi göstermektedir. Bu yüzden kişilerin yazılarındaki ve röportajlarındaki dili incelenmiştir.

¹¹⁷ Merkezi, decentralized kavramına karşılık olarak çevirilmiştir.

Kullanıcılar ve üreticiler kendilerini devlet ve finans kuruluşlarına karşı konumlandıklarını söylerken finansal dilin özgürlük tanımını nasıl ekonomik indirgemeci bir şekilde kullandığını ve piyasa hakikatinin nasıl objektif bir şekilde üretildiğini anlatmak amaçlanmıştır

Bitcoin Kuruluşu'nun internet sitesinde Bitcoin kripto para olarak adlandırılan yenilikçi bir dijital para olarak tanımlanmıştır (Bitcoin is an innovative payment network and a new kind of money, n.d.). Bitcoin'in temel özellikleri arasında onun hiçbir devlet ya da bankaya ait olmaması ve desteklenmemesi, hesaplar arası aktarım ücretinin olmaması ya da çok düşük miktarda olması, küresel ölçekte hızlı ve seyyar ödemeler yapılması, dolandırıcılığa karşı kimlik güvenliği sağlayan anonim ödeme özellikleri olması sıralanmıştır (Bitcoin for Individuals, n.d.).

Kripto paraların hakkında en çok altı çizilen temalar onu, *merkezi olmayan*¹¹⁸ ve kimse tarafından yönetilmeyen yenilikçi bir sanal para birimi ve ödeme sistemi olarak tanımlar. Kimse tarafından kontrol edilmeyen, merkezsiz para birimi özellikleri *güven*¹¹⁹ teması ile beraber ele alınmıştır. Güven teması ise, Bitcoin internet sitesinde şeffaf, açık ve kamusal olarak tanımlanmıştır (Bitcoin, n.d.). İnsanların Bitcoin'e güvenmelerinin sebebi onun güvene ihtiyacı olmayışı olarak iddia edilmiştir. Bitcoin teknolojisi güven ihtiyacının yerini almıştır (Bu durumda güven, teknolojiye olan güven olarak kurulmaktadır). Bitcoin sisteminde, geleneksel para birimlerinin işleyişinde olduğu gibi, para basımı, piyasanın işleyişi ve düzenlenmesi devlet kurumları, bankalar ve bu kurumlarda çalışanlar tarafından yerine getirilmek yerine bir bilgisayar programı tarafından yapılmaktadır.

Programın özelliği onun bu işleyişleri yerine getirmek için aracı olarak nitelendirilen bankalar, PayPal, Western Union gibi kurumlara ihtiyaç duymayışı olarak nitelendirilmiştir. Bitcoin örneğinde programın kendisi, Bitcoin kuruluşları, kripto

¹¹⁸ Merkezi olmayan/Merkezsiz, Decentralized kavramına karşılık olarak çevirilmiştir.

¹¹⁹ Güven, Trust kavramına karşılık olarak çevirilmiştir.

para döviz siteleri araçlar haline gelmektedir ancak bu ‘yer deęiřtirme’ Bitcoin metinleri tarafından göz ardı edilmektedir.

Metinlerde öne çıkan bir dięer özellik güven temasıyla birlikte ele alınan řeffaflık temasıdır. Bitcoin programı ‘řeffaf’ olarak nitelendirilmiřtir. Program herkes tarafından görülebilir açık kaynak ile kodlanmıřtır. Kullanıcı hesapları arasında yapılan bütün aktarımlar anonim olarak umumi bir kayıt defterinde tutulmaktadır ve herkes tarafından çevirim içi olarak görülebilmektedir (Why do people trust Bitcoin, n.d.).

Kimse tarafından yönetilmedięi ve řeffaf oluřu temaları Bitcoin’in güven ihtiyacını ortadan kaldırdıęı iddiasını destekler nitelikte kullanılmıřtır. Dięer bir deyiřle Bitcoin’in *zincir bloęu*¹²⁰ denilen řeffaf muhasebe kaydı teknolojisi, para arzını řeffaf, tarafsız ve herkes tarafından görülebilir, kullanılabilir ve teyit edilebilir kılmaktadır. İşlemler bir kez program tarafından işlendięinde kimse tarafından deęiřtirilemez ve manipüle edilemez řekilde řifrenlenmektedir (What are the Advantages of Bitcoin?, n.d.). Bu sebepler yüzünden Bitcoin tarafsız ve řeffaf olarak nitelendirilmiřtir. Piyasaya ve finansal kurumlara olan güvensizlik Bitcoin programına duyulan güven ile yer deęiřtirmektedir.

Bitcoin’in avantajları ödeme serbestlięi, düşük ya da sıfır aktarım ücretleri, düşük dolandırılma riski, güvenlik, řeffaflık, para üzerinde bireysel kontrol olarak sayılmaktadır. Bu artılar piyasanın daha etkin işleyiři teması altında toplanmaktadır. Merkezsizlik, kimsenin kontrolünde olmayıř, güven, řeffaflık, serbestlik, hız ve etkinlik 2007-08 finansal krizi ve sonrasında yařanan devlet ve finans kuruluşlarının toplum gözünde güvenilirliklerini kaybediřleri sorununa çare olarak ileri sürülmüřlerdir. Bitcoin kuruluşundan bugüne hem devlet ve finans kuruluşlarının yolsuzluklarına getirdięini iddia ettięi liberter çözümler ile hem de bir takım yasadıřı alanlarda kullanımı ile popülaritesini giderek arttırmıřtır.

¹²⁰ Zincir bloęu, Blockchain kavramına karřılık çevirilmiřtir.

İlk bakışta sıradan bir bilgisayar program gibi görünen Bitcoin yıllar içinde hızla gelişmiş, finans dünyasında ve internette ciddi bir etkiye yol açmıştır. Bitcoin'in başarısını takiben çok sayıda benzer şekilde programlanmış *alternatif para*¹²¹ geliştirilmiş ve kullanılmaya başlanmıştır. Crypto-Currency Market Capitalizations internet sitesine göre şu anda kripto para piyasasında 741 adet alternatif para, 119 yatırım fonu ve 4002 çevirim içi kripto para döviz sitesi bulunmaktadır. Bu kripto paralar döviz sitelerinde, Bitcoin başta olmak üzere kendi aralarında ve geleneksel fiat paraları ile takas edilebilmektedir.

Neoliberal yönetimin altında yatan rasyonalite aynı zamanda önerilen liberter çözümlerin mantığı örtüşmektedir ve bu nedenle bu tezi için önem arz etmektedir. Bu tezde Bitcoin metinleri ile düşünsel bir paralellik taşıdığından Avusturya Okulunun para politikaları kullanılmıştır. Kripto paralar Avusturya Ekonomi Okulunun özel para kavramına bir örnek olarak ele alınmıştır. Bu nedenle Neoliberalizm bu tezde Avusturya Okulunun Neoliberalizmi olarak kullanılmıştır. Diğer liberal iktisat okulları gerektiğinde ayrıca vurgulanmıştır.

Ludwig von Mises ve Friedrich von Hayek Avusturya Ekonomi Okulunun öne çıkan isimleri arasındadır. Okulun kuruluşu Avusturya'da olmakla beraber ilerleyen dönemlerde dünyanın farklı yerlerine yayılmış ve çok sayıda takipçi edinmiştir. Çalışmaları çoğunlukla Neoliberal olarak etiketlenmiş (genellikle sol düşünürler tarafından pejoratif olarak ve de çoğunlukla piyasa tutuculuğunun anti-demokratik uygulamaları yüzünden) ve bazen de tercihen liberter (ya da Avusturya liberterizmi) olarak adlandırılmıştır. Çalışmalarında serbest piyasa ekonomisinin savunuculuğunu yapmışlardır. Bu çalışmalar 1929 Büyük Buhranı'nı izleyen yıllarda, ikinci dünya savaşı sonrasında ve soğuk savaş sürecinde sosyalizme karşı ve çoğunlukla da devletin serbest piyasa müdahalelerine karşı yazılmıştır. 1947 yılında Hayek dünyadaki politika belirleyicilerinin üzerinde etkili olabilmek amacı ile 'Mont Pelerin Society' adında bir liberal entelektüeller topluluğu ağı kurmuştur. Okulun düşünceleri özellikle 20. Yüzyılın sonlarına doğru ekonomi alanında ve kamu politikalarında hızla etkisini arttırmıştır. Günümüzde ana akım iktisat düşüncesi ve

¹²¹ Alternatif para, altcoin (alternative coin) kavramına karşılık olarak çevirilmiştir.

iktisat politikaları bu okulun etkisi altında ilerlemektedir. (Holcombe [introduction], 1999).

Her ne kadar izledikleri metodolojinin diğer liberal ekonomi okullarından (örneğin Şikago Ekonomi Okulu) farklı olması nedeniyle okul içerisinde Avusturya Ekonomi okulunun Neoliberal olmadığına dair itirazlar olsa da (Bagus, 2016 January 4; McMaken 2016, October 21), piyasa ekonomisi, özel mülkiyet ve bireysel özgürlük terimlerini kavramlaştırılmaları ve kullanışları bakımından oldukça benzerlik taşımaktadırlar. Ekonomik rasyonaliteyi açıklamada Şikago Okulu'nun matematik modelleri ve denklemleri yerine Avusturya düşünürleri aksiyomlar kullanmışlardır. Bu yöntem, Neoliberal yönetimin etkisinin finansal dildeki hâkimiyetini analiz etmek açısından bu tez için fazlasıyla önem taşımaktadır.

Bitcoin metinlerinde üretilen objektif, 'saf' piyasa ilişkileri hakikati, İleri liberal/Neoliberal sosyallik olarak tanımlanan (Rose 1996, pp. 16-17), bireylerin rekabetçi bir ortamda girişimci formatında kar-zarar maliyeti analizi yaparak kendi para birimlerini ürettikleri ve özel, gönüllü, devlet ve sivil toplum kuruluşları ile bir arada yönettikleri yönetim anlayışı ile benzerlik taşımaktadır.

Bu tezde, birbirleri ile rekabet halinde olan kripto para piyasasının alternatif paraları Avusturya İktisat Okulunun '*özel para*'¹²² kavramına bir örnek olarak ele alınmıştır. Avusturya Okulu para politikalarında, özel girişimciler tarafından üretilen farklı özel para birimleri arasında olan piyasa rekabetinin tüketicilere en sağlıklı ürünü vereceği iddia edilmiştir. Avusturya İktisat Okulu kökenli yazarlar ekonomik krizlerin arkasında yatan ana sebebin merkez bankalarının hatalı para politikaları olduğunu ileri sürmüşlerdir. Paranın özelleştirilmesinin ve devlet monopolünden 'kurtarılmasının' piyasanın etkinliğinin bozulmasına yol açan yolsuzlukların önüne geçilmesine olanak tanıyacağı savunulmuştur (Rothbard 2005; Hayek 2008; Hülsmann 2008).

¹²² Özel Para, private money kavramına karşılık olarak çevirilmiştir.

Bu tezin amacı Bitcoin ve kripto para üzerine yazılan metinleri, Avusturya Okulu ile benzerliği üzerinden okuyarak özgürlük temasının nasıl özel mülkiyet, rekabet ve piyasa ilişkileri üzerinden finansal olarak tanımlandığını ve sosyalliğin piyasa ekonomisi kapsamında tanımlandığını analiz etmektir.

Özgürlük kavramı Neoliberal sosyallik için kurucu nitelikte önem taşımaktadır ve piyasa ekonomisinde eylemselliğin temelidir. Bu nedenle bu tezde özgürlük kavramı kripto paralar örneğinde Neoliberal sosyallik için temel tema olarak kullanılmıştır. Benzeri şekilde başta Bitcoin olmak üzere kripto para üzerine yazılan metinlerde devlet müdahalesi, finansal özgürlük, girişimcilik, özelleştirme ve serbest piyasa temaları ön plana çıkmaktadır. Bu metinlerdeki piyasanın, finansal kuruluşların ve merkez bankalarının para politikalarının sorunsallaştırılma biçimleri, işaret ettikleri sorunlara kripto paraların saf piyasa ilişkileri ile nasıl bir çözüm getirmeyi hedeflediklerini de göstermektedir.

Rogojanu (2014) ve Franco'nun (2015) da Avusturya Okulu ile Bitcoin benzerliklerini gösterdiği üzere, Kripto para piyasası da enflasyon ve devalüasyona karşı en güvenilir ve en güçlü para biriminin rekabetçi bir şekilde belirlenerek en yaygın olarak kullanılacağı mantığı üzerinden kavramsallaştırılmış ve tasarlanmıştır. Avusturya Okulu'nun para politikalarında, merkez bankalarının para basması da dahil olmak üzere piyasaya yapılan her türlü devlet müdahalesinin ortadan kaldırılması, mümkün olmadığı durumlarda ise sınırlandırılması ve serbest piyasada rekabet halinde olan kişisel girişimciler tarafından üretimin yapılması savunulmuştur. Böylece rekabet halinde olan birçok para birimi arasında en güvenilir olanı tüketicilere verilmiş olacaktır. En iyi yönetim en az yönetimdir mantığına dayanan bu anlayış, devletin piyasaya olan her türlü müdahalesini 'tüm kötülüklerin anası' olarak tanımlamış, bu müdahalelerin yüksek enflasyon oranlarına, ekonomik krizlere ve totalitarizme yol açacağını ileri sürmüştür (Hayek 2008; Rothbard 2005; Hülsmann 2008).

Avusturya Okulu düşünürleri özgürlüğü, devlet-özgürlük ikiliği üzerinden tanımlamışlardır. Devlet, özel mülk ve bireylerin karşısında tanımlanmıştır ve

devletin olduğu yerde özgürlüğün mümkün olmadığı vurgulanmıştır. Devlet özgürlüğün olumsuzlanması demektir. Özgürlük ancak devletin müdahalesinin olmadığı yerde bulunur ve özgürlük daima yönetimden özgürleşme demektir (Mises 2009, s. 34-35).

Bu tezde kullanılan Foucaultcu metin analizi Neoliberalizmin daha az *yönetim*¹²³ olmakla beraber daha az *yönetim anlayışı*¹²⁴ olarak anlaşılması gerektiğini göstermeyi amaçlamaktadır (Foucault 2008). Modern devletin ve modern insanın doğuşu eşzamanlıdır ve iktidar teknolojilerinin, onun temelinde bulunan politik rasyonalite üzerinden incelenmesi gerekmektedir (Lemke 2001).

Yönetim zihniyeti kavramı, bu kavram belirli bir temsil biçimi belirlediğinden ve iktidarın pratik edilebileceği bir söylemsel alan yönetim tarafından rasyonalize edilerek tanımladığından önem taşımaktadır. Yönetim bu alan içerisinde bir sorunun mümkün kılınmasına ve hedef gösterilmesine olanak tanımakta ve aynı zamanda sorunun ele alınışı ve çözümü için çeşitli stratejilere olanak sağlamaktadır. Aynı zamanda, bu şekilde belirli bir müdahale biçiminin kurulmasına olanak tanımaktadır.

Neoliberal yönetim anlayışı hem doğrudan hem de dolaylı müdahaleler ile onlar üzerinde bir sorumluluk taşımadan bireyleri yönetir ve kontrol eder. Serbest Piyasanın tasarlanması ve kanunlaştırılması doğrudan müdahale, üreticilerin ve tüketicilerin kendi ihtiyaçları doğrultusunda birer birey olarak bu piyasada eylemde bulunmaları ise dolaylı müdahaledir. Neoliberal yönetim anlayışı özgürlük üzerinden yönetmektedir. Devletin geri çekilişi bireyleri kendi ihtiyaçlarından sorumlu hale getirmekte ve kendi ahlaklarına uygun olarak girişimcilik zemininde kendi yönetimlerini uygulamalarına olanak vermektedir. Bu tez Bitcoin örneğinde bu piyasa ahlakının nasıl işlediğini analiz etmeyi açıklamaktadır.

Kripto para kuruluşları ve çevirim içi kripto para toplulukları kripto paraların geliştirilmesi, tartışmalar yapılması ve sorunlar hakkında geri bildirim verilmesi için

¹²³ Yönetim, government kavramına karşılık olarak çevirilmiştir.

¹²⁴ Yönetim anlayışı, governmentality kavramına karşılık olarak çevirilmiştir.

sosyalleşme olanağı sağladığından bu araştırma için önem taşımaktadır. Bu tezde girişimcilik, gönüllülük, devlet ve sivil kökenli kişilerden oluşan bu iletişim ağı Rose'un İleri liberal yönetimine bir örnek olarak ele alınmıştır (Rose 2004, pp. 139-140). Bürokratik devlet uzmanlığına karşı üreticilerinin bu *karşı-uzmanlığı*¹²⁵, piyasa rasyonelitesinin, devletin yönetim pratiklerini tüketici talebi, güvenilirlik ve rekabet anlayışına uygun olarak devletsizleştirmesine önemli bir örnek olmaktadır (Rose 1996, p.41). Kripto para metinlerinde otoritesiz ve merkezsiz olarak kavramsallaştırılan bireylerin bu karşı-uzmanlığı kendi otoritelerini finans kuruluşlarının otoritelerinin yerine geçirmektedir. Devlet ve finans kuruluşlarının otoritelerine açıkça karşı pozisyon almakla beraber bu metinler aynı zamanda bu kuruluşların da üzerine inşa edildiği serbest piyasa düşüncesini takip etmektedirler.

Foucault'ya (1976) göre birey, iktidarın saldırdığı, hükmettiği, ezdiği ya da sınırlandırdığı bir eşya değildir. Birey, iktidarın yayıldığı yerde ürettiği bir etkidir. İktidar bireyi oluşturur, ama aynı zamanda birey iktidarın bir aracıdır. Birey pasif bir şekilde iktidarın hükmetmesini bekleyen bir şey değildir. İktidarın akışının devamlı olarak geçtiği, iktidarı ve bireyleri bir ağ olarak kuran yerdir. Yönetim iktidarın bireyler üzerinde tatbik edildiği bir yöntemdir (Burchell 1996, p. 19).

Bu tezde Bitcoin metinleri Neoliberal söylemin serbest piyasa hakikati için bir örnek olarak kullanılmıştır. Geliştiriciler, girişimciler ve destekleyicilerin kendi para birimlerini ve ödeme sistemlerini üretmek için sarf ettikleri çabalar, her ne kadar kendi açılarından devlet ve finans kuruluşlarının otoritelerine karşıt olarak konumlandırılmış olsa da, serbest piyasa anlayışı ile bir devamlılık arz ettiğinden Neoliberal sosyallik örneği olarak ele alınmıştır. Bu kişiler halen serbest piyasa yasalarının iktidarının işleyen bir örneği olmaktadır.

Bu tezin nihai amacı, Neoliberal yönetim anlayışının nasıl kendilerini merkezsiz ve otoriteden bağımsız olarak tanımlayan Bitcoin savunucularının kullandıkları dile hakim olduğunu göstermektir. Bu örnek ile otoritelerden kaçmak, bağımsızlaşmak

¹²⁵ Karşı uzmanlık, Counter-expertise kavramına karşılık olarak çevirilmiştir.

isteyen Bitcoin savunucularının, iktidar ve bilgi ağlarına nasıl dolanmış ve bağlı oldukları gösterilmek istenmiştir.

Bu tezde, Bitcoin ve kripto para metinleri bireysel özgürlükleri serbest piyasa mantığına dayanan finansal bir çerçeve üzerinden yaptıklarından Neoliberal sosyallik için bir örnek olarak kullanılmıştır. Neoliberal yönetim özgürlükler üzerinden işlemektedir. Bu yönetim anlayışının altında yatan mantık, bireylerin piyasa yasaları hakikatine dayanan rekabetçi bir ortamda bireysel girişimcilik yapma serbestlikleridir.

Tezin ikinci ve üçüncü bölümlerinde merkezsizlik, rekabet, güven, şeffaflık ve yolsuzluk gibi kavramlar ele alınmıştır. Bitcoin metinlerinde bu kavramlar hem serbest piyasanın etkinliğini arttıran öneriler hem de işaret edilen problemlere kripto paralar ile getirilmesi planlanan çözümler olarak ele alınmıştır.

Merkezsizlik kavramı hem politik iktisat metinlerine hem de internet sansürü konularına gönderme yapmakta ve bu konulara teknolojik bir çözüm sunduğunu iddia etmektedir. Güven ve şeffaflık kavramları da benzeri şekilde piyasa etkinliğini arttırmaya yönelik çözümler olarak kullanılmıştır. Yolsuzluk kavramı piyasa etkinliğinin düşüklüğüne işaret eden, etkinlik düşüklüğünün temelinde ise merkezi karar alma anlayışı ile işletilen kuruluşların hedef gösterildiği bir eleştiri olarak kullanılmaktadır.

Güvene ihtiyaç duymayan bir sistem olarak öne sürülen Bitcoin teknolojisi, var olan finansal sistemin ve kuruluşların problemlerine bir çare olarak ileri sürülmüştür. Bu çözümün işaret ettiği anlayış ise bu kuruluşlara güvenmek yerine, kripto para geliştiricilerinin, üreticilerinin karşı-uzmanlığıyla getirdikleri teknolojiye duyulan güvendir.

Bitcoin metinleri parayı apolitik olarak tanımlayarak Avusturya Okulunun 'değerden bağımsız'¹²⁶ yaklaşımına benzerlik taşımaktadır. Bu metinlerde teknolojiye toplumsal sorunların ve krizlerin çözümü için bir kurtarıcı rolü verilmiştir. Kolektif

¹²⁶ Değerden bağımsız, Value-free kavramına karşılık olarak çevirilmiştir.

oluşumların ve kurumların bu sorunların temelinde olduğunu iddia edilmektedir, fakat bu sorunlara çare olarak gösterilen özel girişimcilerin de yolsuzluk yaptıkları ve etkisizliğe neden oldukları gözlemlenmiştir.

Kripto para metinleri eleştirisini yaptıkları kuruluşların yaşadıkları sorunlara çare olmayı iddia ederken benzeri sorunlar yaşamaktadırlar. Metinlerde öne çıkan temalar, tartışmaların çözümü olarak kullanılmıştır. Kripto paralar özgürlük kavramını bu temalar üzerinden finans ve piyasa terimleri ile tanımlamaktadır. Bu durum özgürlüğün sadece piyasa sınırları içerisinde yaşanabileceği anlayışına dayanmaktadır. Merkezsizlik, güven, şeffaflık, yolsuzluk kavramları finans temelli kavramlar olarak ön plana çıksalar da metinlerdeki birçok tartışmada piyasa alanının dışına taşmaktadırlar ve toplumsal sorunlara çözüm olma iddiası taşımaktadırlar. Bitcoin'in zincir bloğu teknolojisi sadece finansal etkinliği arttırmak için değil aynı zamanda birçok toplumsal sorun için de devrimsel nitelikte bir çare olarak gösterilmiştir. Ama altını çizmek gerekir ki kripto para teknolojisinin potansiyeli finansal aktarımlara getirdiği hız ve kolaylıktır, topyekun bir toplumsal değişim değildir.

Bitcoin ve kripto para metinleri finansal özgürlük sınırlarını aşarak özgürlüğün sahiplenme anlayışı üzerinden kurulduğu mülkiyetçi bir tanımını yapmaktadır. Bu metinlerde ideal para biçimi olarak öne sürülen kripto paralar aynı zamanda ideal bir toplum anlayışına işaret etmektedirler. Bilgisayar programcılığı, matematik, kriptografi alanlarından beslenen bu metinler aynı zamanda, her ne kadar temel bazı uyumsuzluklar olsa da, Avusturya Ekonomi Okulu düşünce akımı ile de birçok benzerlik taşımaktadır. Sosyalliği ekonomi, programcılık, matematik denklemleri üzerinden tanımlama yolunu seçtiklerinden ekonomik indirgemeci bir yaklaşım sergilemektedirler. Bu yaklaşım özgürlüğü sadece finansal olarak göstermektedir ve özgürlüğü finans dili ile tanımlamaktadır. Kripto paralar hız ve kolaylık sağlamaları açısından kullanışlı olsalar da finansal etkinlik nihai olarak özgürlük ihtiva etmemektedir.

Kripto para metinlerinde serbest piyasa yasaları tek otorite olarak ele alınmıştır ve piyasaya her türlü müdahale eleştirilmiştir. Ancak bu metinlerde bir katman daha görülmektedir. Kripto para üretimi programcılar tarafından yazılmıştır. Bu metinlerde devlet-piyasa ikiliği üzerinden yapılan özgürlük tanımı, programcılar, girişimcilerin ve kuruluşların otoritesinin merkez bankaları ve finans kuruluşlarının otoritesi ile olan yer değiştirme hareketini göz ardı etmektedir. Nihai olarak Bitcoin savunucularının ve eleştirmenlerinin tartışmalarının merkezinde finansal kurumların kontrolünün nasıl olacağı ve olması gerektiği yatmaktadır. Var olan kurumları savunanlar ile yeni kurumları savunanlar arasında olan bu tartışma kontrolün kimde olacağı sorusu üzerinde yükselmektedir.

APPENDIX C: TEZ FOTOKOPİSİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü

Sosyal Bilimler Enstitüsü

Uygulamalı Matematik Enstitüsü

Enformatik Enstitüsü

Deniz Bilimleri Enstitüsü

YAZARIN

Soyadı : GÖKSARAN

Adı : EFE CAN

Bölümü : SOSYOLOJİ

TEZİN ADI (İngilizce) : AN ANALYSIS OF NEOLIBERAL SOCIALITY
IN THE PARTICULAR CASE OF BITCOIN

TEZİN TÜRÜ : Yüksek Lisans

Doktora

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir.

2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir.

3. Tezimden bir (1) yıl süreyle fotokopi alınamaz.

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: