REGULATORY CHALLENGES OF ALTERNATIVE E-CURRENCY
COMPARATIVE ANALYSIS OF BITCOIN MODEL IN US AND EU JURISDICTIONS

By Miljan Mimic
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ABSTRACT

The thesis provides a comparative overview of US and EU anti-money laundering rules and regulations, focusing on their possible application on bitcoin cryptocurrency and argues against over-regulation in this sector. In addition, as preliminary question, thesis provides comparative overview of legal status of bitcoin in US and EU jurisdictions, concluding that there exists high level of uncertainty as to its current legal nature, due to very differing approach undertaken by US authorities on the one hand and EU authorities on the other. Based on the undertaken analysis, the conclusion is that already existing AML regulation can be adapted to encompass bitcoin, and that this existing and any eventual further regulation should concern businesses operating on bitcoin platform as quasi-financial institutions, and not ordinary users.
INTRODUCTION

Cryptocurrencies are currently often occupying the headlines around the world, yet very little is generally understood about them. Prevailing view among the general public seems to be that these are secretive payment instruments created solely for the purpose of conducting criminal activities in cyberspace, under the guise of anonymity. When asked about the reasoning behind these presumptions, there will not be many well supported answers, simply because there are so many misconceptions regarding the cryptocurrencies. Thus, in order to pose questions regarding this innovative payment instrument, the Chapter I of this thesis will provide basic introduction into mechanics of cryptocurrencies in general and bitcoin in particular.

The model cryptocurrency used in this thesis will be bitcoin, due to its current overwhelming dominance over all other cryptocurrencies. However, this does not mean that bitcoin is the only example out there – there are currently thousands of variations residing in cyberspace. Bitcoin was not the first one, nor will be the last one to be created, yet over the past two years it profiled itself as the flagship one. Nevertheless, all the questions raised in this thesis are relevant to other examples of cryptocurrencies as well, and the intended goals is to apply the lessons learned to future models as well. Namely, bitcoin may or may not be here in a year’s time, but it can be said with certainty that cryptocurrencies are here to stay. This attitude has been mirrored even by skeptical economists. Veteran Financial Times Deutschland editor Wolfgang Münchau, although very skeptical of bitcoin potential, believes that the real importance lies with future bitcoin successor, which, properly constructed, may challenge global and banking system, specifically may become “potential challenger to the entire system of global finance, in particular of fractional reserve banking.”¹ Further, Nobel prize winning

¹ Münchau Wolfgang, Our flawed financial system is reflected in Bitcoin, Financial Times (March 2, 2014), http://www.ft.com/cms/s/0/d4c70ce2-a067-11e3-8557-00144feab7de.html.
Yale professor of economics Robert Shiller, though extremely critical of the usefulness of bitcoin, classifying it a as bubble, acknowledges that “the legacy of the bitcoin experience should be that we move toward a system of stable economic units of measurement — a system empowered by sophisticated mechanisms of electronic payment.”\(^2\) Thus, it is of imperative importance for legal professionals to get acquainted with both inner workings and legal nature of bitcoin and associated payment instruments, in order to be ready for legal and regulatory challenges which are yet to materialize.

From its inception, bitcoin faced criticism in public for encouraging various criminal activities. However, during 2013, as its public profile drastically elevated following the skyrocketing raise in its value, it drew attention from legal professionals and scholars as well; some of the scholarly works severely attacked bitcoin, decrying it as a money-laundering scheme and called for its ban or regulation, even labeling it “one of the most potent threats facing US law enforcers today.”\(^3\)

In order for bitcoin as a platform to have any chance to succeed as an innovative payment mechanism, and even to be accepted by mainstream corporate players around the world (as money transfer platform, it has enormous potential in modern globalized corporate world since it promises revolution in movement of value across the borders), several legal issues surrounding it have to be cleared. One of the most important is the association of bitcoin with money laundering schemes, since no respectable business would like to be associated with such instruments, especially in two of the most important business jurisdictions in the world, the United States of America (“US”) and the European Union (“EU”).

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\(^3\) Twomey Peter, *Halting A Shift in the Paradigm: The Need for Bitcoin Regulation*, 16 Trinity C.L. Rev. 67 (2013), 89.
Thus, this thesis will be somewhat limited in scope. It will analyze if and how existing anti-money laundering (“AML”) regulatory framework of US and EU can be applied to bitcoin transactions, and it will show that bitcoin is one of the least desirable payment platforms for performing money-laundering activities. In addition, the preliminary question of legal nature of bitcoin shall also be discussed. Other regulatory challenges surrounding bitcoin need to be further researched.

The Chapter 2 will use the comparative method to analyses the dual legal nature of bitcoin in US and EU jurisdictions. Chapter 3 will continue with comparative legal analysis, comparing and analyzing the complex regulatory AML framework in two selected jurisdictions. The final chapter will provide insight to particularities of bitcoin platform with respect to AML rules, with somewhat surprising results.
CHAPTER 1 - BITCOIN MECHANICS

Bitcoin has been created in 2009 by mysterious programmer Satoshi Nakamoto (widely regarded to be an alias), who introduced the software mechanisms behind bitcoin in the paper titled Bitcoin: A Peer-to-Peer Electronic Cash System.\(^4\) He gave several goals for introduction of new currency: (i) reducing the reliance of Internet commerce on financial institutions serving as trusted third parties in financial transactions, (ii) reducing the costs of transactions by eliminating the need for mediation by financial institutions serving as third parties (the possibility of mediation, in case of possible transaction reversals, is one of the major explanation for high transaction fees), (iii) eliminating the possibility of transaction reversals (chargebacks) and thus creating more certainty for online merchants (this certainty already exist in case of cash usage, but there was no alternative online).\(^5\) In order to solve these problems, it was necessary to eliminate third parties by eliminating the need for trust based system – the cryptography was the solution.\(^6\)

Cryptocurrencies, including bitcoin, function on the basic principle of private/public key encryption. These two keys are usually managed by bitcoin client software, installed on the user computer. Public key is used as a bitcoin address – string of characters which is used as a target when transferring bitcoins (thus, in order to receive bitcoin payments, all that is necessary is for your public key to be send to other party in transaction). After the transaction is received, such bitcoins are “stored” on that address. Outgoing payments are authorized by private key. Another characteristic of cryptocurrencies is that all transaction are public – namely, in order to avoid double-spending (that is, to prevent a user to send same bitcoins to two different addresses), all transactions are recorded in public chains, called blockchains, where any

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\(^5\) Id. at 1.

\(^6\) Id.
discrepancy in the chain of bitcoins will be spotted. Thus, in order to finalize transaction, it has to be validated as genuine (that the bitcoins in question have not been already spent previously) by a number of other user’s computers. Another result of this concept is that each bitcoin user has complete history and record of all bitcoin transactions that have ever taken place, which is unprecedented level of transparency when it comes to payment platforms.

Now, there is a residual risk that a malicious entity may register numerous different cryptocurrency profiles, and by using different IP addresses, fools the system in approving the double-spending transactions (by using number of its own profiles to approve the transaction as genuine). What bitcoin introduced into the equation (and what gave the bitcoin such a high profile among other cryptocurrencies at the time) is the proof-of-work concept. It basically infinitely minimizes the risks of double spending, by requiring each user who approves the transaction to solve a mathematical formula before admitting the approval. The idea behind this concept is that to solve the formula certain amount of computer processor (CPU) power needs to be used, thus ensuring that the users approving the transaction are using different computers. Furthermore, it means that in order to successfully implement double-spending attack on the platform, malicious entity would need to muster enormous amount of CPU power, more than combined power of all other users on the network combined, which is practical impossibility.

However, the mathematical formula solution comes at a cost, since CPU time and electricity will be expended in the course of computations. Thus, users who participate in the approval process are incentivized to do so in two ways. Primary incentive is the possibility to be awarded a bitcoin as result of the CPU work – this is how all new bitcoins are issued, and this process is popularly called “mining.” However, over time the amount of new bitcoins

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7 Id. at 2.
8 Id. at 3.
which are being issued is decreasing until it stops completely (the total number of bitcoins to
be issued is limited for purpose to tackle inflation risks). Thus, users making transactions are
couraged to voluntary offer small transaction fees to be collected by users whose computers
are doing the approval work – in this way system will keep ruining, and the transaction in
question will be processed faster due to added incentive.\textsuperscript{9}

Currently, it takes a lot of CPU power to successfully mine bitcoins, and that is the reason
behind proliferation of bitcoin exchanges throughout the world. These business provide
exchange services for bitcoin and fiat currencies, and often serve as trading platforms for
bitcoin (thus, bitcoin may be seen as commodity as well). However, it is important to
understand that bitcoin platform and bitcoin transactions may operate completely
independently from these exchanges, because in its essence, bitcoin is a peer-to-peer currency.
This means that transactions are performed directly between two users’ computers, without
need for any third party intervention. In the end, despite its complexity, bitcoin as a currency
unit comes down to the private key stored in the wallet – it controls the bitcoins stored on
corresponding bitcoin address. There is no material manifestation of bitcoins. In case the
private key is lost or stolen, the bitcoins are usually gone as well, so the obvious parallel with
cash in the material world can be made here.

\textsuperscript{9} Id. at 3, 4.
CHAPTER 2 - LEGAL NATURE OF BITCOIN

The very fact of Internet based existence of these new monetary instruments presents a significant challenge for any definite classification and definition of the instrument within the framework of existing nation-state legal systems. This is best illustrated on the example of Bitcoin, since it is the most well-known and even quasi regulated in some parts of the world. Namely, the official positions of governments, regulators, courts and lawmakers worldwide with respect to Bitcoin varies significantly, from the acceptance of bitcoin as a legal tender (as is the case in Germany and to the point UK) through acceptance of bitcoin as either investment instrument or commodity (as is the case in US) ending in full rejection of bitcoin from use in the nation-state territory.10

Eventual classification of bitcoin and determination of its legal nature may have crucial impact on the regulatory questions presented in this paper, and thus it is important to provide an outlook of the current legal status bitcoin may have within the selected jurisdictions. However, the US and EU authorities, as well as authorities from various EU countries, have taken differing positions toward the legal nature of bitcoin. Therefore, in order to better understand the cross-border challenges the cryptocurrency platforms and their users are facing on the daily basis, presented below is an overview of the legal and regulatory background in the selected jurisdictions.

2.1 United States Legal Framework

To date, there are two major regulatory guidelines in US issued specifically targeting virtual currencies, one issued by the Treasury Department’s Financial Crimes Enforcement Network (“FinCEN”), and one issued by the Internal Revenue Service (“IRS”). In addition to these, there

is at least one decided case law precedent, dealing with the nature of the bitcoin, as well as number of opinions by regulatory agencies issued mostly as a result of public hearings aimed at virtual currencies.

### 2.1.1 FinCEN Guidelines

On March 18, 2013, FinCEN issued Guidance no. FIN-2013-G001 (“FinCEN Guidance”) with the aim to “clarify the applicability of the regulations implementing the Bank Secrecy Act to persons creating, obtaining, distributing, exchanging, accepting, or transmitting virtual currencies.” FinCEN identifies bitcoin as de-centralized virtual currency, due to the fact that there is no central repository and no single administrator on bitcoin platform. Another important distinction in FinCEN’s regulatory approach is that “users” of virtual currencies (which only use them for purchasing goods and services) are exempt from FinCEN regulation, as opposed to “money transmitters” who are exchanged in the business of exchanging and selling the virtual currencies for real currency or equivalent other value. FinCEN further concluded that virtual currency money transmitters need to fully comply with the rules and regulations governing money service business, specifically regarding registration and other formalities under the Bank Secrecy Act. This is due to the fact that FinCEN updated its earlier rulings on money service business with the phrase “other value that substitutes for currency” specifically to catch these newly emerged virtual currencies under its umbrella.

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13 FinCEN Guidance, supra note 11, at 5.

14 Id. at 1-2.

15 Senate Hearings, supra note 12, (statement of Ms Jennifer Shasky Calvery, FinCEN director) at 8, 9.
Although, *prima facie*, this may mean that general usage of bitcoin in US remains largely unregulated, FinCEN guidance had a profound effect on the market. As it is becoming increasingly difficult to mine bitcoin, majority of bitcoin “users” have to purchase bitcoin units on virtual exchanges, using real world currencies. Thus, all these purchasing transactions would fall within the FinCEN money business rules, and all the companies (popularly called bitcoin exchanges) providing the exchange service are required to register and enforce AML rules. So far all the major bitcoin exchanges, such as the largest Mt.Gox and Coinbase, registered with FinCEN, while number of others who are not willing to do so are leaving the US jurisdiction altogether.\(^\text{16}\)

However, it is also important to note that FinCEN dose not equate bitcoin with real currencies, nor does it provide guidance of the bitcoin’s legal nature. Specifically, FinCEN provides only negative definitions of bitcoin’s legal status, providing that virtual currency “does not have all the attributes of real currency”, and that it “does not have legal tender status in any jurisdiction”.\(^\text{17}\) Further, it excludes the possibility that bitcoin can be viewed as foreign currency in the context of foreign exchange rules, emphasizing that “virtual currency does not meet the criteria to be considered currency”.\(^\text{18}\)

**2.1.2 IRS Virtual Currency Guidance**

On March 25, 2014, IRS issued Virtual Currency Guidance Notice 2014-21, specifically addressing the status of bitcoin, where it ruled that, “for federal tax purposes, virtual currency is treated as property.”\(^\text{19}\) Further, it is clarified that both users and exchanges are subject to

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\(^{17}\) FinCEN Guidance, *supra* note 11, at 1.

\(^{18}\) Id. at 5,6.

capital gains/loss rules and that all persons are subject to report the transactions exceeding $600 in value.\textsuperscript{20}

The IRS decision may prove very important in the terms of possibility of development of bitcoin market in US jurisdiction, but it has yet to be seen how it will be implemented. On the one hand, this “IRS ruling means Bitcoin investors will be treated like stock investors” and it brings a level of certainty for such investors; on the other hand, it introduces “income-tax liability that wasn’t specified before.”\textsuperscript{21} As for the legal nature of bitcoin, this decision is important milestone, providing further indication on future status of bitcoin within US jurisdiction – and it is becoming increasingly clear that US authorities will continue to treat bitcoin as a commodity, rather than currency. On the other hand, there is opinion that whatever the position the IRS has taken, it provided clarity and stability on the bitcoin market, which in turn shall provide enough confidence to the business to use the system to transact with retail customers.\textsuperscript{22}

Thus, the argument is, even if the bitcoin remains legally defined as commodity in US jurisdiction, the clear rules and well understood tax and other risks will allow for the platform to be used as a quasi-currency in day to day transactions. Yet, in order to get to such level, the question of policing the entirely online transactions between relatively anonymous users remains to be solved by the authorities.

\textit{2.1.3 Case Law}

As of the date of this paper, there is only one decided case dealing with legal nature of bitcoin, \textit{Securities and Exchange Commission v. Trendon T. Shavers and Bitcoin Savings and}

\textsuperscript{20} Id. at 3-5.


Trust, where the judge reached the decision on subject matter jurisdiction which depended entirely on the legal nature of bitcoin. The case involved suspected Ponzi scheme, run by Mr. Shavers, using bitcoin as an investment platform for potential investors. The issue of jurisdiction arose when Mr. Shavers argued that the investments in question “are not securities because bitcoin is not money, and is not part of anything regulated by the United States.” Namely, if that is the case, the Securities and Exchange Commission (“SEC”) would lack standing to pursue Mr. Shavers in court due to lack of regulatory control over his operations. SEC argued that investments in questions represent both investment contracts and notes. The SEC’s position is emphasized in the Investor Alert it issued in July 2013, where it is stated that any investment in securities remains subject to their jurisdiction notwithstanding whether it was made in real or virtual currencies.

The definition of “security” within the Securities Act of 1933 encompasses, *inter alia*, “investment contracts.” Thus, in order to establish whether the questioned investments represent the investment contracts (and thereby the court’s jurisdiction), the judge implemented Supreme Court’s *Howey* test, whereby the “investment contract is any contract, transaction, or scheme involving (1) an investment of money, (2) in a common enterprise, (3) with the expectation that profits will be derived from the efforts of the promoter or a third party.” The judge found that all three prongs have been satisfied, and established the court’s jurisdiction; however, of importance here is the court’s reasoning regarding the first prong – that the bitcoin

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24 Id.
27 Shavers, supra note 23.
can clearly be used as money with only limitation being the network of merchants accepting it
as the currency; therefore, the court concluded that “bitcoin is a currency or form of money.”

This decision is apparently contrary to the recent trend of US authorities treating bitcoin as
a commodity, and this is primary reason why the legal nature of bitcoin remains unsettled in
the US, at least until the further case law clarifies both this precedent and the guidelines issued
by the regulators. On the other hand, this decision does provide a strong notion that bitcoin is
a legitimate and not illegal currency in the US jurisdiction.

2.2 European Union Legal Framework

The situation in Europe is a great deal different, comparing to the States. There is hardly
any bitcoin specific regulatory insight on the EU level; yet, on the other hand, the member
states are continuously providing new regulatory guidance for the use of bitcoin, and these are
generally more precise than in the US jurisdiction, while providing for very different legal
status of bitcoin across EU.

2.2.1 Member States Level Regulation

In order to provide an overview of the very fluid developments in the field, the focus will
be on three most important and most influential European economies – Germany, France, and
United Kingdom. Another reason for selecting these jurisdictions is their tendency to be in the
forefront of bitcoin regulation in EU.

Germany has been the first EU country to officially recognize bitcoin as a payment
mechanism – the Federal Ministry of Finance has confirmed in August 2013 that bitcoins are
to be treated as “units of account” or “private money”, although this designation falls short of

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28 Id.
29 Ogunbadewa Ajibola, The Bitcoin Virtual Currency: A Safe Haven for Money Launderers? (September 4,
recognition as a legal tender or currency.\textsuperscript{30} Moreover, in December 2013, German Federal Finance Supervisory Authority [\textit{Bundesanstalt für Finanzdienstleistungsaufsicht}] (“BaFin”), which is a relevant regulatory authority in the field, provided further clarification in an expert article - bitcoin has been qualified by BaFin as a “financial instrument in the form of units of account,” pursuant to relevant German banking regulations.\textsuperscript{31} This classification puts bitcoin close to foreign currencies in the German market, yet BaFin points out that bitcoin is not a legal tender and thus cannot achieve the status of foreign currency or foreign banknotes – it is to be primarily used in the private-law transactions among the users.\textsuperscript{32}

Both of the main French regulators in the field have issued reports on bitcoin. The France’s central bank, \textit{Banque de France}, acknowledges in its December 2013 report that bitcoins are virtual units of account; however, it specifies that bitcoins cannot be regarded as a legal tender, nor means of payment under French laws.\textsuperscript{33} The warnings to users contained in this report are further echoed in the report issued by the French banking regulator, \textit{L’Autorité de contrôle prudentiel et de résolution} (“ACPR”) on January 29, 2014; however, it acknowledges that exchange and payment transactions are taking place in its jurisdiction and requires from the actors to obtain the license as payment service providers.\textsuperscript{34} Thus, it is important to note that French authorities are not taking any actions to curb the use of the bitcoin as alternative currency. Rather, “the Commercial Court of Créteil set a legal precedent on 6 December 2011,

\begin{itemize}
\item \textsuperscript{31} Münzer Jens, Bitcoins: Supervisory assessment and risks to users, BaFin - Federal Financial Supervisory Authority (February 17, 2014), available at http://www.bafin.de/SharedDocs/Veroeffentlichungen/EN/Fachartikel/2014/fa_bj_1401_bitcoins_en.html
\item \textsuperscript{32} Id.
\item \textsuperscript{33} Banque de France, The dangers linked to the emergence of virtual currencies: the example of bitcoins (December 5, 2013), available at https://www.banque-france.fr/fileadmin/user_upload/banque_de_france/publications/Focus10-the_dangers_linked_to_the_emergence_of_virtual_currencies_the_example_of_bitcoins-GB.pdf.
\end{itemize}
when it ruled that virtual currency exchange services should be regarded as payment service providers and therefore need to be authorised as a payment institution.”

United Kingdom’s tax authority, HM Revenue and Customs (“HMRC”) has made a major decision on March 3, 2014 regarding the legal status of bitcoin. In its Brief no. 09/14 it moved to exempt most of the bitcoin related activities (trading, mining, exchange) from VAT payments. “The ruling sidesteps the thorny question of whether to class Bitcoin as a currency, but effectively treats it as such, and bases its policy on the EU law that exempts payments and transfers of negotiable instruments from tax.”

2.2.2 European Central Bank Report

To date, the primary source for bitcoin legal framework on the EU level remains the October 2012 comprehensive report on virtual currency schemes by European Central Bank (“ECB”). Although bitcoin is specifically addressed in this report, including the analysis of the EU legal framework, the ECB does not provide an answer as to the legal nature of bitcoin. However, the report does show the intent of the regulator as to the possible future of the bitcoin and other virtual currencies. There is a clear indication that the way forward should be registering the companies involved in these schemes as financial institutions in the respective jurisdiction; furthermore, ECB even makes a parallel with PayPal system and the banking license it received after it became popular among consumers – with the conclusion that “this is not an easy step, but it looks like the only possible way to strike a proper balance between

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35 Banque de France, supra note 33, at 6.
money and payment innovations on the one hand, and consumer protection and financial stability, on the other.”

2.2.3 EU Electronic Money Directive

One of the unanswered questions raised in the ECB report, is whether bitcoin may fall under the regulatory framework of EU Electronic Money Directive. If that is the case, it would provide clear path towards defining the legal nature of bitcoin in EU jurisdiction.

Article 2 of the Electronic Money Directive provides the definition of electronic money for the purpose of directive, as follows:

“‘Electronic money’ means electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions as defined in point 5 of Article 4 of Directive 2007/64/EC, and which is accepted by a natural or legal person other than the electronic money issuer;”

It can be argued that bitcoin fulfils several of the criteria put forward in this definition – namely, (i) it may be described as electronically stored monetary value, and (ii) it is becoming more and more widely accepted by natural and legal persons throughout the world. However, the Directive further specifies the issuers of electronic money in the same Article 2:

“‘electronic money issuer’ means entities referred to in Article 1(1), institutions benefiting from the waiver under Article 1(3) and legal persons benefiting from a waiver under Article 9;”

Therefore, one of the main preconditions for classification as electronic money is having a centralized entity organizing the issuance of electronic money instruments. In addition, this

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39 Id. at 44.
40 Id. at 43.
42 Id.
entity has to be organized as legal entity of institution (Article 1(1) provides that “electronic money institution” means a legal person that has been granted authorization under Title II to issue electronic money).43 Bitcoin platform, on the other hand, operates simply as a network of computers, without any centralized authority, person or institution behind the issuance process – the bitcoin software, using complex mathematical formulas, determines to which user(s) the next batch of bitcoins will be issued in the mining process. Therefore, due to the specific and decentralized nature of bitcoin, there is no possibility whatsoever to classify bitcoin as electronic money under the current EU regulatory regime.

2.3 Dual Legal Nature of Bitcoin

As shown above, US authorities have undertaken firm steps toward classification of bitcoin as commodity, which could bring bitcoin under the regulatory umbrella of US Commodity Futures Trading Commission (which possibility has been announced in a recent interview by one of its commissioners44). The statement expressed before January 2014 hearings on bitcoin before the New York State Department of Financial Services is that “bitcoin is not a virtual currency, but a high-risk virtual commodity.”45 On the other hand, EU bureaucratic apparatus is moving slowly toward the solutions based on accepting bitcoin as payment platform, even mirroring success of PayPal, with France calling on other member states “to launch a European consultation on the regulation of virtual currencies.”46

Thus, the answer to the question on bitcoin legal nature remains inconclusive, primarily due to its cross-border existence, without the links to any particular legal system in the world.

43 Id.
Namely, case law precedents of US courts shall have no effect on the legal nature of bitcoin in the rest of the world, while ambition plans of EU to provide legal framework for bitcoin will only create even more complex and challenging cross-border environment for bitcoin users. This is has become obvious in recent months with respect to bitcoin taxation issues – while EU governments, with UK in the forefront, are cutting VAT based taxes for majority of bitcoin operations due to its perceived nature as payment method, the US is introducing the capital gains taxation based on its understanding of bitcoin as commodity.

In the end, only one definitive answer remains – that bitcoin has characteristics of both commodity and currency, and it would be wise for regulators to understand this dual legal nature before enforcing untested regulation.

47 HMRS, supra note 36.
48 IRS, supra note 19.
CHAPTER 3- ANTI-MONEY LAUNDERING REGULATORY MECHANISMS

One of the matters which unites both US and EU regulators is the fear of what this new and innovative platform may bring with respect to money laundering proliferation. Several regulatory warnings have been issued on both sides of Atlantic.

During the November 2013 US Senate Committee on Homeland Security and Governmental Affairs hearings, Acting Assistant Attorney General warned of proliferation of virtual currencies, and especially of the trend for these platforms to be used with the online anonymizing services (such as easily accessible and free Tor Project, which uses the large distributed network of users’ computers to mask the users’ network traffic including their IP addresses). In the understanding of the US Department of Justice, these platforms “could easily accommodate the hundreds of millions of dollars often moved in a single large-scale money laundering scheme.”\(^49\)

On the other hand, European Banking Authority (“EBA”), EU’s banking, payments and e-money regulatory agency, issued a December 2013 warning to users of virtual currencies, specifically addressing the risks of money laundering – in their view the untraceable and anonymous nature of these instruments opens the possibility that they will be used for “transactions associated with criminal activities, including money laundering.”\(^50\)

Despite this common concern, US and EU have taken somewhat different approach to tackling the money laundering issues embodied in the virtual currencies, especially concerning

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the bitcoin itself. Namely, the US authorities have developed more detailed guidelines regarding the bitcoin regulation in order to combat money laundering; in addition, court cases have been already instated concerning the suspected bitcoin money laundering schemes. On the other hand, EU authorities have not as of yet officially addressed this question. However, it is important to review the existing AML regulatory mechanisms in order to assess whether any new regulations are even necessary at this stage. The overview of the US federal level and EU level AML rules and regulations is provided below.

3.1 United States AML Mechanisms

3.1.1 Bank Secrecy Act

FinCEN made a significant step toward the clarification of AML regulations with respect to bitcoin, by issuing FinCEN Guidance. This regulatory document provides specific rules for application of the Bank Secrecy Act (“BSA”) which is one of the major AML regulations on the federal level in the United States. The importance of such regulatory guidance stems from the fact of very uncertain legal nature of bitcoin and bitcoin related transactions (as discussed in the previous chapter). Thus, it is now possible to determine the rules applicable to bitcoin with greater certainty, although some questions will inevitably remain open for interpretation.

Although FinCEN officials repeatedly stressed the AML risks of virtual currencies, the reasoning behind adopting the guidance appears to be very sound one: “striking the right balance between the costs and benefits of regulation.” This goal very well reflects the difficulties that nations-state regulators are facing when dealing with de-centralized, de-personalized and de-territorialized Internet based instruments such as bitcoin. Namely, the

53 *Senate Hearings, supra* note 12, (statement of Ms Jennifer Shasky Calvery, FinCEN director), at 8.
FinCEN’s attempts to separate two groups of bitcoin users – ordinary users on the one hand, and “exchangers” on the other, is a very sound approach; it would be impossible for nation-state regulator, even one with extensive resources as FinCEN to police ordinary users, especially having in mind that (i) number of such users may well be located outside of US jurisdiction and out of reach of the US enforcement authorities, and that (ii) identifying every ordinary user would require enormous law enforcement resources. However, by focusing on the exchange entities (which are usually legal entities, and all of them either incorporated in US jurisdiction or maintaining a branch or representative office in the US, as discussed below), part of the AML policing burden will be shifted from public to private sector, since the regulated bitcoin exchanges would have to undertake certain KYC (know your client) policies in order to comply with regulations.

Under FinCEN Guidance, bitcoin “exchangers” are subject to BSA rules as special kind of financial institutions - money services business (“MBSs”). MBSs are introduced within the BSA’s definition of financial institutions via special FinCEN regulation in July 2011, providing that:

“Like other financial institutions under the BSA, MSBs must implement AML programs, make certain reports to FinCEN, and maintain certain records to facilitate financial transparency. MSBs are generally required to: (1) Establish written AML programs that are reasonably designed to prevent the MSB from being used to facilitate money laundering and the financing of terrorist activities; (2) file Currency Transaction Reports and Suspicious Activity Reports; and (3) maintain certain records, including those relating to the purchase of certain monetary instruments with currency, transactions by currency dealers or exchangers (to be called “dealers in foreign exchange” under this rulemaking), and certain transmittals of funds. Most types of MSBs are required to register with FinCEN and all are subject to examination for BSA compliance by the Internal Revenue Service.”

54 FinCEN Guidance, supra note 11, at 1, 2.
56 Id.
Furthermore, FinCEN also defines MBS as “A person wherever located doing business, whether or not on a regular basis or as an organized or licensed business concern, wholly or in substantial part within the United States [...] This includes but is not limited to maintenance of any agent, agency, branch, or office within the United States.”\(^{57}\) Therefore, bitcoin exchanges wishing to operate within the US jurisdiction in full compliance with existing regulatory regime, have to ensure the local presence in some form.

Finally, the FinCEN Guidance provides the definitions for both “user” and “exchanger” and provides certain clarifications to help differentiate between the two. “User is a person that obtains virtual currency to purchase goods or services.”\(^{58}\) Further, FinCEN expressly specifies that “A user who obtains convertible virtual currency and uses it to purchase real or virtual goods or services is not an MSB under FinCEN’s regulations.”\(^{59}\) On the other hand, the “exchanger” is defined as a “person engaged as a business in the exchange of virtual currency for real currency, funds, or other virtual currency.”\(^{60}\)

At the first glance, this very important distinction is clear enough. This differentiation would allow the great majority of ordinary bitcoin users to be exempt from the cumbersome AML reporting and registration rules when performing day-to-day bitcoin transactions, and is in fact precondition for further development of bitcoin as a currency platform. However, there are two elements within FinCEN regulation which introduce level of uncertainty. The qualification “person engaged into business” from exchanger definition remains unspecified, since it is not provided what *acting as a business* entails.\(^{61}\) Furthermore, FinCEN Guidance clarifies that bitcoin mining itself is not regulated by BSA, but in case the prospective miner

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\(^{57}\) 31 CFR § 1010.100 (ff).

\(^{58}\) FinCEN Guidance, *supra* note 11, at 2.

\(^{59}\) Id.

\(^{60}\) Id.

\(^{61}\) Bryans, Danton, Bitcoin and Money Laundering: Mining for an Effective Solution. 89 Ind. L.J. 441 (2014), at 459.
sells created bitcoins to another person (for fiat currency or other value), such miner shall be considered MSB and be subject to BSA rules. This creates a level of uncertainty among the bitcoin users, especially those engaged in mining, with respect to their eventual obligation to register with FinCEN as MSBs. Thus, further clarifications by FinCEN would be welcome with respect to the definitions used in FinCEN Guidance, since “the current definitions may result in unnecessarily tedious disputes over the definition of a business.”

Further, bitcoin transactions are mostly conducted either via peer-to-peer software or through bitcoin exchanges. The status of such peer-to-peer transactions with respect to FinCEN Guidance needs further clarification, so to avoid possibility that eventually majority of bitcoin users, and especially miners, who come in contact with cash, become subject to registration.

3.1.2 Money Laundering Control Act

The other major AML federal level legislation, the Money Laundering Control Act of 1986 (“MLCA”), has been enacted with a different purpose than BSA. Its first section, 18 U.S.C.A. § 1956, criminalizes conduct of person who “knowing that the property involved in a financial transaction represents the proceeds of some form of unlawful activity, conducts or attempts to conduct such a financial transaction which in fact involves the proceeds of specified unlawful activity.” The required conduct is further qualified to include either intent or knowledge of huge number of “specified unlawful activities” related to transaction. Given that US authorities tend to classify bitcoin as a property, this section of MLCA may be applicable to bitcoin. In addition, it needs to be pointed out that this same section criminalizes another form of conduct, transportation or transmission of monetary instruments or funds, while possessing the intent or

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62 FinCEN Guidance, supra note 11, at 5.
63 Bryans, supra note 61, at 459.
knowledge of related unlawful activity. 67 However, US authorities do not view bitcoin as funds (but rather as a commodity, as discussed in previous chapter), and bitcoin does not fit the provided definition of monetary instruments either. 68

Second section of MLCA, 18 U.S.C.A. § 1957, provides for a similar criminalization of activities as in the first section, with two important differences: (i) it sets the minimal threshold value of $10,000, 69 and (ii) it is not necessary for a defendant to know from which criminal offence the property has been derived, only the general knowledge that the property is criminally derived is enough. 70

Application of MLCA to bitcoin may prove to be problematic, especially with regard to its firsts section. Namely, due to de-centralized and de-personalized nature of bitcoin, it may prove to be difficult to show that a user possesses knowledge that bitcoins it receives and/or transfers are criminally derived (as required by the second section MLCA), and it is even less probable to show his knowledge about specific unlawful activity behind the transaction (as required by the first section MLCA). The main concern with both sections of MLCA is that, in order for it to be applied, the background unlawful activity has to be proven and the person responsible charged – this will prove difficult to achieve in the bitcoin peer-to-peer network where culture of privacy and relative anonymity still flourishes. 71

3.2 European Union AML Mechanisms

EU authorities have not yet provided any official guidelines with respect to AML treatment of bitcoin and related business. However, Directive 2005/60/EC 2005 on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing (“AML

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71 Bryans, supra note 61, at 460.
Directive”)\textsuperscript{72} provides unified EU level rules for implementation of AML mechanisms throughout EU, and the focus of this subchapter will be to determine whether this existing regulatory framework may be applied to the bitcoin transactions.

Article 1(2) of the AML Directive provides the definition of money laundering, which encompasses the following activities:

“a) the conversion or transfer of property, knowing that such property is derived from criminal activity or from an act of participation in such activity, for the purpose of concealing or disguising the illicit origin of the property or of assisting any person who is involved in the commission of such activity to evade the legal consequences of his action;

b) the concealment or disguise of the true nature, source, location, disposition, movement, rights with respect to, or ownership of property, knowing that such property is derived from criminal activity or from an act of participation in such activity;

c) the acquisition, possession or use of property, knowing, at the time of receipt, that such property was derived from criminal activity or from an act of participation in such activity;

d) participation in, association to commit, attempts to commit and aiding, abetting, facilitating and counselling the commission of any of the actions mentioned in the foregoing points.”\textsuperscript{73}

The “property” is defined as to mean “assets of every kind, whether corporeal or incorporeal, movable or immovable, tangible or intangible, and legal documents or instruments in any form including electronic or digital, evidencing title to or an interest in such assets.”\textsuperscript{74} Therefore, it can be assumed that bitcoins are covered by this definition, particularly as electronic form instruments, allowing the application of the AML Directive. However, the money laundering definition contains some of the same elements of knowledge and intent with respect to unlawful activities, similar to the MLCA in US jurisdiction. Although the AML Directive provides that

\textsuperscript{73} Id., Article 1(2).
\textsuperscript{74} Id., Article 3(3).
the required knowledge “may be inferred from objective factual circumstances”\textsuperscript{75} it will still be very difficult to implement the regular standard of proof to the peer-to-peer bitcoin network, where the perceived anonymity is highly valued among the users, and where, because of such culture, users would not generally require much information about the person on the other side of transaction.

Another obstacle for immediate application of the rules envisaged within the AML Directive to the bitcoin transaction lies within its target group. To be precise, Article 2 specifies which institutions and entities shall be bound by the reporting and registering rules prescribed within the Directive: credit institutions, financial institutions, auditors and accountants, notaries, trusts, real estate agents, casinos.\textsuperscript{76} Prima facie, bitcoin exchange platforms could fall under the umbrella of financial institutions. The AML Directive does provide detailed definition of the ‘financial institutions’, encompassing six types of institutions. Out of these six, only two might encompass the bitcoin exchanges:

“(a) an undertaking other than a credit institution which carries out one or more of the operations included in points 2 to 12 and 14 of Annex I to Directive 2000/12/EC, including the activities of currency exchange offices (bureaux de change) and of money transmission or remittance offices; […]

(c) an investment firm as defined in point 1 of Article 4(1) of Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 on markets in financial instruments (12).”\textsuperscript{77}

Among the undertakings listed in Annex I of Directive 2000/12/EC are entities engaged in such activities as the following: money transmitting services, trading with money market instruments and foreign exchange, money broking.\textsuperscript{78}

\textsuperscript{75} Id. Article 1(5).
\textsuperscript{76} Id. Article 2(1).
\textsuperscript{77} Id. Article 3(2).

"Investment firm means any legal person whose regular occupation or business is the provision of one or more investment services to third parties and/or the performance of one or more investment activities on a professional basis;"\(^{79}\)

while investment services and activates are defined to concern specific activities relating to number of defined financial instruments, \textit{inter alia}, transferable securities and money-market instruments.\(^{80}\)

However, under current rules and regulations, bitcoin does not fit none of the above activities and instruments, listed in the Directive 2000/12/EC and MiFID Directive. Therefore, the application to bitcoin of the rules provided under the AML Directive is uncertain and unlikely at the moment, and requires further regulatory and/or court clarifications. Another important factor to consider in this respect is that all the above mentioned European AML sources are EU directives, meaning that they do not have a direct effect, rather member states had to transpose them into their legislation. Thus, final assessment of application of current AML rules would require comparative analysis of the member states’ legislation, which is not the subject of this paper.

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\(^{80}\) Id. Article 4(1)(2).
CHAPTER 4 - AML REGULATORY ANALYSIS - WHAT LIES AHEAD

4.1 Bitcoin Vs. Cash

One of the main reasons for both bitcoin’s success and for it being continually perceived as ideal money laundering tool by regulators worldwide, is its anonymity and flexibility. However, in order to provide an objective analysis, it is important to note that bitcoin is not first payment instrument to poses such qualities – another being cash. Cash is anonymous payment system. Cash is a very flexible payment instrument. Number of authors and even regulatory authorities have over the years pointed to similarities between bitcoin and cash, with European Central Bank even stressing that “bitcoin can be considered to be another variety of cash, i.e. digital cash.” Furthermore, one of the main characteristic of bitcoin transactions is the irreversibility – there are no chargebacks, which is exactly what characterizes cash transactions (as opposed to credit card transaction, when there is a residual possibility that transactions may be reversed, either by the banks or by the users). Similarly, both cash and bitcoin can be stolen – cash from the physical wallet in one’s pocket, and bitcoin from electronic wallet residing on the one’s hard drive (by way of hacking or otherwise).

On the other hand, two important differences exist between cash and bitcoin platform. Although, for centuries, cash has been accepted as instrument of choice for money laundering purposes, there was always one major setback – transport of large quantities of cash can often be very burdensome; bitcoin does not have material manifestation, and does not face similar transfer obstacles. This would make bitcoin seem like an ideal money laundering tool, were it not for a second differing characteristic: bitcoin platform transparency.

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81 Bryans, supra note 61, at 447.
82 ECB, supra note 38, at 25.
84 Id. at 180.
85 Christopher, supra note 64, at 18.
4.2 Anonymity v. Transparency

Today, number of regulatory authorities and authors claim that bitcoin is ultimate anonymous and untraceable currency. However, this absolute statement is simply not true – in the words of the well-known and established quantum computation scientist Michael Nielsen, “the claim that bitcoin is anonymous is a myth.” The essence of bitcoin network structure is block chain, as described in more detail in the introductory part of this paper. What that means in practice, especially having in mind AML goals, is that every bitcoin transaction that ever happened is recorded in these publicly available block chains, and every bitcoin user is provided with full access to complete past and present records. It is true that majority of the users prefer not to disclosed their identity while using bitcoin, and hence attain certain level of anonymity by having their bitcoin addresses not connected to their real world identities.

Yet, both scientists and hackers are very active in the field of social engineering – by using huge Internet and social networking resources, it is possible to identify users of so called anonymous social networks; the tool such as block chain, “is a marvelous target for these techniques” What is more important, as the quantity of data regarding bitcoin transaction increases (with individual users making new transactions and leaving the ever larger digital trail in the block chain), it will become easier overtime to identify real world identities behind even today’s most anonymous and untraceable among bitcoin addresses. As a way of comprising, one could imagine that every cash transaction in the world has been recorded - even if the actual identity of some of the parties may be unknown at the time of transactions (cash anonymity), the record itself would give powerful tool for future investigators to work

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86 EBA, supra note 50, at 3.
88 Id.
89 Id.
on. This approach to policing was already officially recognized by at least one regulatory authority, when German BaFin concluded in its assessment that “this may result in police investigations using block chain analysis.” Thus, bitcoin may actually be billed as “the most open and transparent financial instrument the world has ever seen.” Having in mind this important characteristic of bitcoin, the conclusion arises that this increased and unprecedented transparency will actively discourage money laundering via bitcoin platform.

4.3 Existing AML Regulations and Future Outlook

The question that keeps arising before regulatory authorities in both US and EU jurisdiction is whether to continue down the road of bitcoin regulation. Yet, when it comes to anti-money laundering rules, it appears that this is the wrong question. It is obvious from comparative regulatory overview presented in the previous chapters that sophisticated AML regulations are already in place in both jurisdiction. What is missing are legal and regulatory clarifications with respect to bitcoin, i.e. how should bitcoin as a platform and bitcoin related business (primarily bitcoin exchanges) fit into existing regulatory framework.

4.3.1 Regulatory Clarifications

The US has taken a lead in this respect by providing official guidelines for AML treatment of bitcoin and other virtual currencies via FinCEN Guidance. What is of paramount importance in this document is that it tries to clearly differentiate between the ordinary users of bitcoin platform on the one hand, and the entities engaged in business over bitcoin platform. Although on the EU level there is no similar document, EU member states have been also active in this respect, and the most encouraging signals are coming from Germany, where BaFin echoed American approach in their February 2014 supervisory assessment – it specifically recommends that ordinary use of bitcoin, including mining and sale of bitcoins, should not be

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90 Münzer, supra note 31.
91 Nielsen, supra note 87.
subject to regulatory authorization; on the other hand, BaFin concludes that persons engaged in regular bitcoin trading or organized for-profit mining should be subjected to authorization requirements. Although FinCEN’s guidelines ultimately fail to provide clear distinction between users and business, it is a sound foundation for future development of bitcoin platform and associated economy.

The importance of this distinction lies in the very nature of bitcoin as decentralized and dematerialized internet based platform. There is no central authority governing bitcoin. This innovative platform is basically piece of software, no more, which again is not bound by territorial borders of particular jurisdiction, but rather lives on distributed network of millions of computers worldwide. As opposed to this network of ordinary users, bitcoin exchanges established themselves as real world business, often voluntary subjecting themselves to nation-state regulations in order to acquire status as close as possible to regular financial institutions. Thus the real questions is not whether to regulate bitcoin platform as a whole, but whether to regulate ordinary users, since bitcoin exchanges already largely transcended the cyberspace border by actively pursuing the status of financial institutions.

4.3.2 Unexceptionalists v. Exceptionalists

Debate whether to regulate or not to regulate ordinary bitcoin users equates with already existing debate between regulatory unexceptionalists and exceptionalists – to unexceptionalists cyberspace activities are functionally equal to activities carried out by analog types of communication, and thus should be subject to full regulation. However, when this view is tested in the platform such as bitcoin, unexceptionalists’ arguments seem less then convincing, since as of yet there is not even common understanding between experts as to what is bitcoin’s legal nature, let alone what would be bitcoin’s closest alternative in real world. That is why it

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92 Münzer, supra note 31.
is advisable to, at least with bitcoin, try the exceptionalists’ solution, which acknowledges “that everything on the Web can affect everyone else simultaneously”\textsuperscript{94} and not overregulate the emerging technology. In addition the bitcoin community possess great capacity for self-regulation and policing, as evidenced by recent launch of new bitcoin startup, Bitrated, which provides sophisticated, entirely community based mechanisms for fraud protection in bitcoin transactions, even introducing the system of community based arbitrators to police transactions.\textsuperscript{95} Thus, bitcoin is becoming interesting and very fluid testing ground for exceptionalists’ theories, especially taking into account the recent Senate hearings statement of Federal Reserve Chairman that “The Federal Reserve simply does not have authority to supervise or regulate bitcoin in any way,”\textsuperscript{96} adding that bitcoin is operating entirely outside the banking sector.

A telling example of the consequences of these two approaches can be seen in US: while FinCEN, with its subdued guidelines, is trying to make room for bitcoin to develop on the US financial markets as a user friendly, though still \textit{sui generis}, financial instrument, IRS on the other hand has introduced unexsceptionalist rules equating bitcoin with property, which may have very negative impact on the future development of bitcoin business in the US jurisdiction.\textsuperscript{97}

\textsuperscript{94} Id. at 891.
CONCLUSION

The comparative analysis of US and EU regulatory frameworks with respect to application of AML rules to bitcoin produced interesting results. It confirmed that legal nature of bitcoin remains uncertain, due to very uneven classification by regulatory authorities from different jurisdictions. There is a tendency in EU that bitcoin is classified as alternative payment method, with Germany being at the forefront, officially classifying it as unit of account. On the other hand, the US authorities have taken different approach, with IRS classifying bitcoin as property, and imposing heavy tax burden on virtually all transactions.

Further, it is clear that very sophisticated AML regulation already exists in both US and EU jurisdictions; however, due to uncertain legal nature of bitcoin, it is difficult to apply these regulations without any regulatory intervention. It is encouraging to see relatively similar approach toward this issue on both sides of Atlantic – namely, US FinCEN regulatory agency provided relatively clear guidance on application of AML rules to bitcoin, while in the EU, although there is no regulation on union level, Germany’s financial regulator published supervisory assessment of bitcoin. Both of these documents emphasize distinction between ordinary users of bitcoin, which are not subject to regulations, and entities that operate for-profit on bitcoin platform, which are subjected to AML rules. Yet, both documents still contain unclear definitions which do not contribute to providing legal certainty for bitcoin users.

One of main conclusions of this exercise is that, while understanding the need to regulate the bitcoin exchanges which operate as quasi-financial institutions, it would be counterproductive to subject bitcoin users to AML rules and regulations, especially with respect to registration and reporting obligations. Namely, the bitcoin community has already showed imitative to autonomously address number of legal issues related to platform, including the issues of fraud. Any move to over-regulate biutcoin at this point may stifle the development
of one of the most innovative and promising cyber technologies today, which could help define the world of tomorrow. Another argument against over-regulation would be that any such move would most likely be ultimately unsuccessful:

“As the world is now, code writers are increasingly lawmakers. They determine what the defaults of the Internet will be; whether privacy will be protected; the degree to which anonymity will be allowed; the extent to which access will be guaranteed. They are the ones who set its nature. Their decisions, now made in the interstices of how the Net is coded, define what the Net is.”

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98 Lawrence Lessig, Code version 2.0 (Basic Books 2006), 79.
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