

The 4th International Conference on Economics and Social Sciences
Resilience and economic intelligence through digitalization
and big data analytics

June 10-11, 2021

Bucharest University of Economic Studies, Romania

Crypto-Assets Regime in the European Area

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DOI: 10.2478/9788366675704-012

Abstract

Crypto-assets are one of the major applications of blockchain technology in finance and they have captured the attention of the European authorities in the last 10 years, examining the opportunities and challenges raised by these types of assets. Central banks have stated that the use of crypto-assets remains modest in size and it does not pose a threat to financial stability, therefore they stayed unregulated in the EU. Following a big surge in the market capitalization of crypto-assets starting 2015, national authorities have decided to take action. While some member states have implemented a bespoke regime to cover crypto-assets, in other member states they remain unregulated. This paperwork's aim is to present a picture of the European context with regard to crypto-assets and the approach taken by member states in order to mitigate the risks related to crypto-assets.

The information was collected from the available sources. The research was realized by using qualitative and thematic analysis.

Throughout this paper, we will present the first attempts to introduce legislative solutions to regulate crypto-assets and create an EU framework that both enables markets in crypto-assets and the tokenization of traditional financial services.

The main conclusion is that a common EU framework approaching uniform conditions for crypto-assets will provide the legal certainty necessary to promote innovation within the crypto-asset market and to ensure market integrity and financial stability.

Keywords: crypto-assets, crypto-assets regime, blockchain, crypto-currencies, crypto-assets risks, Bitcoin.

JEL Classification: E52, E58, G20, G23, O33.

1. Introduction

The financial system is going through rapid changes. We are experiencing an evolutionary process driven by Fintech innovations and affecting a wide range of financial services. Blockchain and crypto-currencies are in between the new form of

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services allowing the transfer of currencies and obligations. Globally, more and more virtual currency issuers have appeared, for example Bitcoin, Ethereum, Bitcoin Cash, Stellar and Ripple. Crypto-assets/currencies are a digital representation of value or rights that may be transferred and stored electronically, using distributed ledger technology or similar technology.

The use of the term “currency” when referring to such assets and their characteristics has been challenged over time by several researchers (Dwyer, 2015; Selgin, 2015; Schilling & Uhlig, 2019; Yermack, 2013). In addition, some studies showed that crypto-assets, especially Bitcoin, represent a hedge instrument for investors. For example, Paule-Vianez et al. (2020) argue that Bitcoin can act as a hedge or safe currency against economic uncertainty due to its independence from the existing economic and financial system.

Other researchers focused on studying the technology on which virtual currencies are based, namely blockchain, trying to explain how this innovative technology works and how to validate transactions with virtual currencies ensuring their traceability and security (Rella, 2020).

The benefits of this technology were also studied, with recommendations for regulators to accept technology and apply it in various areas, such as data collection through the blockchain that would allow instant dissemination of data to authorized persons with access rights, being at the same time protected against loss and manipulation (Jamison & Tariq, 2018). Crypto-assets/currencies (please take note that crypto-assets and crypto-currencies will be understood in the same sense in this paper) like Bitcoin are digitally encrypted tokens traded in peer-to-peer networks (Malcom, 2018). These types of crypto-assets have attracted the attention of regulators, companies and the public worldwide, generating concerns for regulators seeing crypto-assets as a potential instrument for illegal activities and with potential impact on the monetary policy and financial stability. Even so, regulators have not taken actions in regulating crypto-assets, referring especially to the European Area, and the authorities observed the challenges and opportunities presented by these innovative digital tokens.

Money is defined by three key properties: a medium of exchange, store of value, and unit of account, so we can support the fact that crypto-currencies are not widely used as media of exchange due to their limited acceptability and mostly to their high volatility. When it comes to store of value, difficulties in safely storing crypto-assets are known, as hackers have targeted them on many occasions (The record loss of 850,000 bitcoin from Tokyo-based Mt. Gox in 2014). Last function, the unit of account, as the European Central Bank expressed (2012, 2016), “given the low level of acceptance and the high volatility of their exchange rates and thus purchasing power make them unsuitable as a unit of account [...] Bitcoin cannot be regarded as full form of money at the moment”.

Taking into consideration the aspects mentioned above, it is obvious that crypto-assets are different from the money and the payment methods we know. Crypto-assets have a number of inherent and unique characteristics that pose challenges for policymakers. These challenges arise from their lack of centralized control

(technology is an innovative one based on decentralized control), anonymity, valuation difficulties, hybrid characteristics of payment and investment instruments (Jan, 2020).

To conclude, this paper will focus on presenting the implications of the cryptocurrencies from three perspectives, i.e.: 1) tax policy implications and regulation; 2) money laundering implications and regulations and 3) activities involving crypto-assets and the need to regulate them at EU level.

2. Problem Statement

What implications do crypto-assets pose for the European and national markets? According to Coin Market Cap (Coinmarketcap - Bitcoin), the estimated annual transaction volume in Bitcoin grew from \$2 million to over \$55 billion between 2012 and 2020. Is it necessary to regulate this type of assets, including under de EU law in order to protect the financial markets?

Authorities (ABE, 2019, NBR, 2018) mentioned in the last years, crypto-asset activities are not regulated services within the scope of EU banking, payments and electronic money law, and the risks related to crypto-assets are not addressed in the EU.

It is important to mention that the European authorities observed in the EU a relatively low level of crypto-asset activity for the moment and so they argued that crypto-assets do not appear to give rise to implications for financial stability. However, they also outline the need to monitor and to address some of the risks related to activities involving crypto-assets. National regulatory initiatives have been developed in some countries and other member states reacted and published official positions on crypto-assets in order to raise concern for the population in relation to the use of these types of assets, especially related to the risk of losing the money invested due to the high volatility of crypto-assets.

2.1. Money Laundering Implication and Regulation

One of the most important issues related to the use of crypto-assets is the fraudulent activities that might be subject to money laundering rules. The possible implications of crypto-assets/currencies in criminal activities due to the lack of regulation in this field have made the authorities to assess the need of a coordinated global effort to mitigate the potential uses of crypto-assets/currencies for money laundering. For example, Fernholz (2015) presented in his study the position expressed by the Bank of International Settlements (BIS) which argued that digital currencies are by their nature, an online product without constraints to be used cross-border, therefore a global and coordinated approach is necessary for the regulation to be fully effective. In addition, other studies presented the idea that it is not possible to regulate crypto-assets effectively without cooperation between states that allow their usage (Porter, 2003).

Malcom (2018) noted in his study that applications of digital technologies have long sought to navigate between transparency and anonymity, being characterized

as *quasi-anonymous* technologies. Nevertheless, the technology of crypto-assets allows the record of the transactions in the public register. The same author outlined in his study that according to Europol, Bitcoin is subject to multiple investigations related to crime activities, accounting over 40% of all identified criminal-to-criminal payments, but no evidence has been provided to sustain the affirmation. The quasi-anonymity of crypto-assets challenges traditional anti-money laundering instruments from the perspective of the identification of individuals and companies involved in money laundering. First, the lack of 'Know Your Customer' rules (Know Your Customer rules are subject to Anti-money laundering directive, which can be accessed on the European union law website, EUR-lex) in the case of crypto-assets/currencies due to the fact that crypto-assets providers were not subject to the anti-money laundering regime. In other words, it is a very difficult challenge to monitor transactions if the parties involved in the transactions are not known. The second problem is related to knowing exactly what a suspicious transfer would 'look' like, in the sense that it is difficult for the authorities and financial institutions to identify suspicious uses of crypto-assets, when crypto-assets are not a traditional instrument. In response to these issues and trying to mitigate potential money laundering risks, some of the crypto-assets providers decided to implement their own voluntary anti-money laundering standards. Nevertheless, this approach has conducted to variance between the anti-money laundering rules applied by the companies and challenges for authorities in monitoring the use of crypto-assets in illegal transactions.

At European level, the authorities took action in order to mitigate the anti-money laundering risk associated with the use of crypto-assets, and the European Commission issued a set of requirements for providers offering exchange services between crypto-currencies and fiat currency and digital wallet providers. The authorities considered that Directive (EU) 2015/849 of the European Parliament and of the Council is the appropriate main legal instrument in the prevention of the use of the financial system for the purposes of money laundering and terrorist financing. The EU framework is creating the premises to avoid the use of crypto-assets for criminal purposes by extending the scope of the Directive and including providers engaged in exchange services between virtual currencies and fiat currencies and custodian wallet providers, as obliged entities in the same way, as the financial institutions. The Directive requires Member States to identify, understand and mitigate the risks related to money laundering and terrorist financing, establishing a set of common rules for the financial institutions operating in the EU market.

The European authorities also noted that this legislative act would not entirely address the issue of anonymity, as users can also transact without crypto-assets providers and a large part of the crypto-assets market will remain anonymous.

In 2018, the European Commission defined the virtual currencies as *a digital representation of value that is not issued or guaranteed by a central bank or a public authority, is not necessarily attached to a legally established currency and does not possess a legal status of currency or money, but is accepted by natural or legal*

persons as a means of exchange and which can be transferred, stored and traded electronically. Defining virtual currencies, the population should be aware and better understand this type of technology and make a clear distinction between the forms of regulated money, such as electronic money, which is a digital equivalent to cash. In addition, the scope of the Anti-money laundering Directive is to cover all the potential uses of crypto-assets/currencies, respectively means of payment, means of exchange, investment instrument and store-of-value products.

Nevertheless, some researchers, for example Bjerg (2016), argued that crypto-assets/currencies do not pose a significant risk to the global Anti-money laundering efforts, little evidence being provided to support this concern. The same analyst noted that money laundering did not originate with the advent of crypto-assets, national currencies, and other digital technologies currently present equal if not greater money laundering challenges. This affirmation has to be understood in a proper way in our opinion, in the sense that traditional money and technology are used at large scale, despite crypto-currencies, which recently entered the market and they are still modest in size compared to traditional form of money.

2.2. Tax Policy Implication and Regulation

Crypto-assets are in a permanent and rapid evolution, therefore in the last years, tax policymakers and authorities have tried to analyse the risks posed by these types of assets. Still, the Organization for Economic Co-operation and Development (2020) argue that for the moment, the tax policy implications remain unexplored, although they are an important element for the overall regulatory framework for crypto-assets.

An important aspect in regulating crypto-assets is to understand how this technology is functioning and who takes part in the process. For example, Houben & Snyers (2018) presented in their study the tax implication on crypto-assets considering all the parts involved in creating, using and exchanging of crypto-assets, such as miners, wallet providers and exchanging platforms. They also outlined in their study the need of information in order to be able to apply tax requirements to crypto-assets, which was complicated due to their anonymity. Still, the aspect of anonymity may be considered addressed, as we will present in the next section of our paper.

In the phase of creation, the main activity that implies registering income is Mining. Actually, this refers to the process that transactions are verified and added to the blockchain-based ledger (record of transactions). The person performing this activity is called “miner” and by validating, the transaction may be entitled to (i) a mining reward, paid through new tokens, and/or (ii) a protocol transaction fee, which is a percentage of the value of the transaction being processed (OECD, 2020). This seems to be the most complicated activity from the taxation treatment, as the authorities do not know the identity of the miners.

For the storage of the crypto-assets, it is necessary to use a wallet in order to hold a token, which are provided by different types of digital wallet providers and the service is subject to a fee paid to the provider. In this case, the providers may be legal

entities registered with the activity they perform, and this should be subject to the taxation regime.

In the exchanging phase, to find potential buyers or sellers, a user may use an exchanging platform or a broker through a peer-to-peer network or a third-party intermediary (OECD, 2020). These services may facilitate the exchange between fiat currency and crypto-assets, for another type of crypto-asset, or for fiat currency. These services are also offered in exchange of a fee paid to the exchange platform, which should be a legal entity, and therefore subject to the tax regime.

Another element to consider from the taxation perspective is related to the function/scope of the crypto-assets. For example, Organization for Economic Co-operation and Development (2020) presented 'crypto-assets/currencies' to cover three main categories of digital financial assets that are based on DLT technology, i.e.: 1) payment tokens (also known as cryptocurrencies), 2) utility tokens and 3) security tokens. According to Blockchain, payment tokens are aimed to be used to make payments, while according to Bitcoinwiki, utility tokens are being used to finance the network and they are not mineable as payment tokens. The third category, security tokens are created with an investment scope, being used as financial instruments and classified as security under applicable law.

In addition, according to Organization for Economic Co-operation and Development (2020), the accounting classification should be considered from the perspective of the taxation regime for crypto assets, the organizations noting that there is no formal guidance available that indicates how crypto-assets should be classified for accounting purposes. Consequently, the existing general accounting principles should be applied, and crypto-assets should be classified based on their economic properties.

Some countries have issued guidance on the treatment of crypto-assets, but still, in most countries, and in the academic literature, there is often a lack of comprehensive guidance or a framework for the treatment of these assets for tax purposes. This lack of guidance may be in part due to the complexity of defining the tax treatment for these assets in a way that covers their different facets, as well as their rapidly changing nature (OECD, 2020).

2.3. Activities Involving Crypto-Assets: Implication and Regulation

The last issue we will present in this paper is related to the activities involving crypto-assets and the implication on the financial system and financial stability, especially considering the increase of their market capitalization. Consequently, in the last years European authorities (European Commission, European Banking Authority, European Securities and Markets Authority) reminded the public the risks related to the use of crypto-assets. As a first step in order to regulate the activities involving crypto-assets, the European Commission in a joint statement with the European Council (2019) concluded that only some crypto-assets could fall within the scope of EU legislation depending on their business model. This can lead to regulatory arbitrage at EU level and leaving consumer and investor without protection for the type of crypto-assets remaining outside of the scope of legislation.

Moreover, they noted that the existing EU framework might inhibit the use of the new technology, respectively DLT. In the same statement, the two authorities noted that some Member States have issued regulation on crypto-assets leading to market fragmentation.

As presented in the above sections, crypto-assets/currencies are a revolutionary invention and they have attracted enough users to draw attention of authorities in certain countries, but also to the European one. The European Commission (2019) expressed in an open letter the need for *a common approach with Member States on cryptocurrencies to ensure the most of the opportunities they create and address the new risks they may pose*. The European authorities are committed to put in place a framework that will harness the potential opportunities that some crypto-assets may offer. Another aspect noted in the same letter by the European authorities is that some member states have recently issued regulation regarding some issues on crypto-assets leading to market fragmentation in the Union. Moreover, it is important to create a framework for the protection of the investors in crypto-assets. Consequently, the European Commission had issued in September 2020 a *Regulation on market in crypto-assets*, being the first initiative to regulate the activities with these types of assets. The text of the legislative proposal can be accessed on the website of the European Union law, EUR-lex, document 52020PC0593.

According to the text of the legislative act mentioned above there are four general and related objectives: 1) the legal certainty of crypto-assets, because for crypto-assets to develop within the EU there is a need to clearly define their regulatory regime, 2) to support innovation and promote the development of crypto-assets, 3) to ensure the protection of the consumers and investors, and 4) to ensure financial stability and monetary policy.

Additionally, in the same proposal the European authorities argue that there is a need for a legal framework for supporting the crypto-asset providers to reach fully the benefits of the internal market. Moreover, in the assessment of the legislative proposal, the European Commission also noted that some Member States have already implemented a bespoke regime to cover some crypto-asset service providers or parts of their activity; still in the majority of the Member States they operate outside any regulatory regime. Another consequence of being unregulated is the fact that crypto-assets service providers are not able to scale up their activity at EU level, and they need to adapt to different practices between member states, which results in high costs for crypto-assets service providers. The European Commission affirmed in the proposal that by introducing a common EU framework, the complexity and costs for firms operating in crypto-assets space will reduce.

Finally, the European Commission pointed out that the absence of a common EU framework, leaves consumers and investors without protection and exposed to substantial risks, the proposal creating the premises to address these risks and offering to consumers and investors a clear understanding of their rights, as well as ensuring financial stability. It is also expected that regulating the activities with crypto-assets will bring more clarity from the taxation regime applicable.

Also, G7 (2019) outlined that a new type of crypto-assets – the so-called ‘stablecoins’ – has recently been promoted by a big social platform and attracted the attention of both the public and regulators, with a potential impact on financial stability due to their potential stable value and the network effects stemming from the companies promoting these assets.

3. Research Questions/Aims of the Research

The academic literature studied on crypto-assets focuses especially on elements related to the trading of crypto-assets, leaving some gaps from the legislative aspects on these types of assets. The regime of crypto-assets is one of the main concerns for European authorities, including central banks. The proper functioning and the stability of the financial system are crucial for the economy, and authorities are facing new technologies and assets/currencies develop and are being used outside the financial system, yet they are capable to induce risks in the financial system.

For example, European Banking Authority (2014) presented a comprehensive summary of risks related to the use of crypto-assets/currencies. The European Banking Authority defined 70 risks, divided into several categories based on who or what they threaten. The threatened groups include: (A) users of cryptocurrencies for business transactions, (B) users of cryptocurrency repository services or cryptocurrency exchange offices, (C) financial integrity, including money laundering and other crime, (D) existing payment systems, (E) regulatory authorities.

The majority of the European countries issued warnings to raise concerns to the population regarding this new technology, as the European Central Bank (2016) shows it, and they are trying to study the technology and the implications on the financial system.

In addition, over the last 5 years, authorities continued to monitor the crypto-assets ecosystem in order to be ready to react and mitigate the most important risks, such as money laundering, taxation and unregulated activities with crypto-assets. The authorities have considered in the last years the challenges posed by crypto-assets, which according to Coin Market Cap represent an overall market capitalization of USD 1,834 billion as of March 2021. The use and level of market capitalization of these assets has been increasing, posing challenges for authorities and policymakers.

This paper intends to present the relevant aspects related to crypto-assets from the regulation perspective and the implications posed by these assets, focusing on the European countries. The objective of our paper is to present the regime of crypto-assets from three main perspectives: (1) *taxation*, (2) *money laundering* and (3) *regulating activities with these types of assets*. The importance of the study we consider to be of high relevance in the actual context of the expansion of the crypto-assets ecosystem and appearance of new types of crypto, the so-called *stablecoins* aiming at having a stable value and be used for payments.

4. Research Methods

For the purposes of this paper, the information was collected from the available sources in every jurisdiction of the member states, focusing on the information published over the last 10 years. Our analysis covers the European territory, in the sense of the regulation regime adopted by the 27 member states. We also used elements presented in the academic literature for crypto-assets.

The research was realized by using both qualitative and thematic analysis, as the information analysed in this paper is not a numerical one, but one focusing on qualitative characteristics of crypto-assets. Qualitative analysis is a suitable instrument for various context and data.

Using the qualitative approach we identified the research questions and formulated them in general terms, we have done a deeper presentation and understanding of the research topic and, consequently a more complex explanation of it. In addition, the qualitative method allowed us to be descriptive in explaining the implications of crypto-assets to the financial system. Taking into consideration the aim of the paper, the qualitative approach offered us the possibility to study and understand crypto-assets, a very complex and new element in the economy.

The methods applied to study the information collected for the purpose of this paper allowed us to understand crypto-assets and their consequences/implications in the financial ecosystem.

5. Findings

The paper presents the principal issues on crypto-assets regime at EU level. As it was shown in this paper and in the academic literature studied (Bjerg, 2016; Fernholz, 2015; Houben, 2018; Malcom, 2018), crypto-assets/currencies pose numerous risks but also numerous opportunities compared to conventional payment/investment methods. In order to address the most important risks related to crypto-assets the authorities have taken actions at EU level. In the case of anti-money laundering regime, all the EU member states apply the same rules established in Directive 5 for the anti-money laundering. For the tax treatment, the countries issued national rules, this aspect not being regulated under a common EU framework. Last, for the activities with crypto-assets, the proposal for market in crypto-assets is negotiated, which proposes a single common market for crypto-assets across the Union, with the same rules for providers offering services with these types of assets.

As it can also be seen in this paper, the majority of the countries and authorities focused on the risks posed by crypto-assets, not on opportunities that cryptocurrencies offer.

The main results obtained after applying the research methods mentioned above are presented in a structured manner in the table below. As it can be seen, at EU level there are rules in place for AML and tax supervision of crypto-assets, a gap from supervision of activities being in the majority of EU countries. Still, as we have presented in the paper, this element is also considered by the authorities, and the

European Commission has proposed an institutional EU framework with respect to the regime applicable for activities involving crypto-assets.

Table 1. Crypto-assets regime in the EU countries

| EU Member States | AML regulation | Tax regulation | Activities involving crypto-assets regulation |
|------------------|----------------|----------------|--|
| Austria | Yes, AMLD5 | Yes | No |
| Belgium | Yes, AMLD5 | Yes | No |
| Bulgaria | Yes, AMLD5 | Yes | No |
| Croatia | Yes, AMLD5 | Yes | No |
| Cyprus | Yes, AMLD5 | - | No |
| Czech Republic | Yes, AMLD5 | Yes | No |
| Denmark | Yes, AMLD5 | Yes | No |
| Estonia | Yes, AMLD5 | Yes | No |
| Finland | Yes, AMLD5 | Yes | No |
| France | Yes, AMLD5 | Yes | Yes – activities with financial instruments related to crypto-assets |
| Germany | Yes, AMLD5 | Yes | No |
| Greece | Yes, AMLD5 | Yes | No |
| Hungary | Yes, AMLD5 | - | No |
| Ireland | Yes, AMLD5 | Yes | No |
| Italy | Yes, AMLD5 | Yes | Yes |
| Latvia | Yes, AMLD5 | Yes | Yes |
| Lithuania | Yes, AMLD5 | Yes | - |
| Luxembourg | Yes, AMLD5 | Yes | - |
| Malta | Yes, AMLD5 | Yes | - |
| Netherlands | Yes, AMLD5 | Yes | - |
| Poland | Yes, AMLD5 | Yes | - |
| Portugal | Yes, AMLD5 | - | - |
| Romania | Yes, AMLD5 | Yes | - |
| Slovakia | Yes, AMLD5 | Yes | - |
| Slovenia | Yes, AMLD5 | - | - |
| Spain | Yes, AMLD5 | Yes | - |
| Sweden | Yes, AMLD5 | Yes | - |

Source: Adapted by the authors after collecting the information from the public sources, which are indicated at the end of the paper.

Note: 1) The information for the taxation regime was collected from the document OECD (2020), Taxing Virtual Currencies: An Overview of Tax Treatments and Emerging Tax Policy Issues, OECD, based on the information provided by the delegates of the countries; 2) For the AML regime there is in place a European directive, so all the EU member states adopted the same rules; 3) for the activities involving crypto-assets, the information was collected from the available public sources and it is indicated accordingly.

To conclude, our results highlight the concerns of the authorities on crypto-assets and their impact on the financial system, presenting a clear intention to regulate these

types of assets in order to protect consumers/investors, promote innovation and ensure market integrity.

6. Conclusions

The developments from the last years indicate shifts in society of what is perceived as monetary value, which should not be understood as alarming ones, but as new services that entered the market and are here to remain and compete with the traditional form of money.

Crypto-assets are expanding globally and the authorities already reacted in order to mitigate the risks posed by this new technology, respectively from the perspective of taxation, anti-money laundering and activities with crypto-assets. These are the first steps made by authorities in order to regulate crypto-assets, addressing the main issues, but understanding at the same time that the financial system is facing important challenges and regulating crypto-assets will solve some of the issues, but will also identify other risks that are to be addressed in the future.

Until the moment this paper was written, we did not find evidence to indicate countries prohibiting the use of crypto-assets, so we can argue that crypto-assets are broadly considered to be 'legal' in the Union.

To conclude, we can state that it is obvious that the lack of regulation may contribute to risks related to the use of crypto-assets. The first step has been made at EU level by the issuance of the AML Directive and we can claim that all Member States implemented the requirements and a common approach and effort have been made from this perspective. Of course, as presented in this paper, additional measures may be needed in the future, some gaps remaining due to the technology, i.e. the fact that transactions with crypto-currencies can be performed in the blockchain without an intermediary, such as exchange/digital wallet provider.

The European Commission has made another additional step at the end of 2020 with the goal of regulating the activities with crypto-assets, supporting the innovation and protecting market integrity. The new EU framework on crypto-assets will contribute to the development of crypto-assets in a secure and safe manner for the consumer, offering at the same time proper instruments for authorities to ensure the suitable/appropriate function of the financial system.

Acknowledgment

The authors thank the Bucharest University of Economic Studies for supporting the 'International Conference on Economics and Social Sciences' symposium where the present paper was presented. We are grateful for the valuable comments received from the other participants and the peer reviewers.

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