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# The Growing Crypto-assets Threat to Anti-money Laundering: How Institutions Are Coping with This Phenomenon

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## Abstract

*The recent spread of technology has had a huge impact on the way we see means of exchange, especially after crypto-assets made their appearance on the market.*
*In this paper, we will describe the different existing types of crypto-assets and their specific characteristics, with particular attention on the usages. Then, we will observe how they can be used to launder money for criminal purposes, looking at a practical case and analysing every step that is necessary to clean illegal money.*
*After that, the work European institutions are carrying out in order to regulate this issue will be taken into account, with regard to all new introductions in AML5 directive. In the final part, we will focus on the gaps found in this directive and how they should be filled.*

**Key words**: anti-money laundering directive, AMLD5, crypto-assets, EU legislators, cryptocurrency, currency tokens

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## How can crypto-assets be defined?

Over the last decade, the increasing spread of technology has changed several aspects of human life and has affected the way people do business. The recent application of technology to banking and financial fields has led to an innovative creation and use of money, the so called cryptocurrency or crypto-asset. Although this new kind of currency may bring some advantages in terms of money exchange, it still does not have a concrete definition or a specific regulation.

The first-ever cryptocurrency was created by a Japanese programmer, under the pseudonym of Satoshi Nakamoto, in 2008 and was not released until the very beginning of 2009.[1] This revolutionary currency, known worldwide as 'Bitcoin', marked the birth of a peer-to-peer electronic cash system, with the aim of providing an alternative mean of payment.[2] More than 3,000 different cryptocurrencies have been created since then, for a total market capitalization exceeding 250 billion US Dollars.[3]

Crypto-assets are digital instruments aimed to act as medium of exchange. They rely on decentralized control and boast the promise of a revolution in Finance.[4] In particular, crypto-assets are a type of private asset based on cryptography and distributed ledger technology.[5] This latter is a sort of database, which is shared across a network, without requiring a central validation process.[6]

Essentially, crypto-assets can be classified in three main categories: currency, investment and utility tokens.[7] The currency tokens, also called exchange tokens, are typically used for transactions,[8] as Bitcoin and Litecoin. Instead, the investment ones represent a debt or equity claim that often provide ownership rights: it is the case of the ICO, a sort of capital raising

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[1] Nakamoto S., *Bitcoin*: *A Peer-to-Peer Electronic Cash System*, 2008, p. 1

[2]*Ibid*, p. 1

[3]Coinbase, https://coinmarketcap.com/

[4] Lopez C., Nudelsman S., Girault A., Serrate J., *The Crypto-Assets Experience: Give Technology a Chance without Milking Users nor Investors (and Keep Close International Oversight on Potential Collateral Damage),* 2020, p. 3

[5] EBA: *Report with advice for the European Commission*, 9 January 2019, p. 4

[6]BullmannD., Klemm J., Pinna A., *In search for stability in crypto-assets: Are stablecoins the solution?,* ECB Occasional Paper, No. 230, 2019, p. 6

[7]Maume, P., Fromberger, M., Rivero, A., *Distributed Ledger Technology and Token Offering Regulation*, 2018, p. 558

[8]Dabrowski M., Lukasz J.,*Virtual currencies and central banks monetary policy: challenges ahead*, Retrieved July 27 2018, p. 7

methods for example Bankera.[9] Unlike the previous ones, the utility tokens enable access to a specific product or service but cannot be used as mean of payments for this latter.[10]

Along the crypto-asset chain, it is possible to identify different intermediaries: the issuer of the cryptocurrencies, the providers that exchange virtual currencies into fiat money, the providers that exchange virtual currencies into other virtual ones, the wallet providers and lastly, the tumbler service.[11]

Within the cryptocurrencies issuer stage, tokens could be set up through a new blockchain and then new tokens could be given away.[12] Moreover, there are also two other different means to obtain tokens that include the cryptocurrency exchange and crypto market. In the first case, tokens can be purchased in a secondary market, compared with fiat currencies and exchanged afterward.[13] It should be pointed out that only few cryptocurrencies can be exchanged into fiat money, therefore, the most used platform to trade these two currencies is the so-called crypto market.[14] The wallet providers involve those companies that handle platforms to offer wallet, for instance through mobile apps or website. In practice, a wallet itself is a sort of storage assembled by private cryptographic keys that allow people to transact tokens.[15] The blockchain stores the transaction data of every token with their own code and as a consequence each step can be visible, which provides more transparency to the transaction process. The tumbler service is useful in this sense, since it enables to simulate a large number of transactions in order to disguise the origin of the tokens.[16] This is one of the reasons why crypto-assets are arousing great curiosity across criminals and represent an online access at a global level, that makes it easier to launder money and finance terrorism.[17]

Around the money-laundering problem, the Europe legislators are working hard in order to fix this threatening issue. Since the first directive to combat money laundering was enacted in

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[9] EBA*: Report with advice for the European Commission*, 9 January 2019, p. 7

[10]*Ibid,* p. 7

[11]Haffke, L., Fromberger, M., Zimmermann, P*. Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* Journal of Banking Regulation, 2019, p. 4

[12]*Ibid,* p. 4

[13] De Filippi P., Wright A., *Blockchain and the Law: The rule of code,* Harvard University Press, Massachusett, 2018, p. 27

[14]Haffke, L., Fromberger, M. & Zimmermann, P. *Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* Journal of Banking Regulationion, 2019, p. 5

[15]*Ibid*, p. 5

[16]*Ibid*, p. 6

[17] FATF: *Report to G20 Finance Ministers and Central Bank Governors*, July 2019, p. 2

1991, the European Union is still updating to beef up the subsequent measures to fight against this phenomenon. Along this line, in 2001 Directive 2001/97/EC was issued with the aim of amending the first directive, refining the existing provision through 40 recommendations.[18] Like the first two directives, the following ones mark their intention to improve the legislation and fortify the national law. Nevertheless, only in 2018 the trouble of crypto-assets related to money-laundering was seriously taken into account by Directive 2018/843, also known as AML5. The main purpose of this directive concerns the prevention of illegal activities related to crypto-assets. In addition, this interprets a first definition of cryptocurrencies improving transparency and restrictiveness.

## Could Crypto-assets threaten anti-money laundering efforts?

One important aspect about crypto-assets is related to their potential benefits. To cite some of them, low costs and speed of transactions are among the most relevant ones. In particular, these benefits are effective outside the European system where payment infrastructures are underdeveloped and unreliable.[19]

Despite this, crypto-assets bring along a copious number of risks and implications: one of these concerns the financial system. Due to the fact that this latter is strongly interconnected to crypto-assets, some spillover effects could arise in real economy.[20] More than anything, it hinders functioning payments, market infrastructures and monetary policy.[21] Furthermore, the greater involvement of crypto-assets has implied an increasing number of illicit activities. For instance, one of the best-known cryptocurrencies in the world – Bitcoin - is used for illicit purposes in a percentage of about 46%.[22]

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[18] IBA Anti-Money Laundering Forum-Europe, https://www.anti-moneylaundering.org/Europe.aspx

[19]Dabrowski M., Lukasz J., *Virtual currencies and central banks monetary policy: challenges ahead*, Retrieved July 27, 2018, p. 14

[20] ECB, https://www.ecb.europa.eu//pub/economic bulletin/articles/2019/html/ecb.ebart201905_03~c83aeaa44c.en.html#toc4

[21]*Ibid*

[22]Foley S., Karlsen J., Putniņš T., *Sex, Drugs, and Bitcoin: How Much Illegal Activity Is Financed through Cryptocurrencies?,* in *The Review of Financial Studies*, Volume 32, Issue 5, 2019, p. 2

Crypto-assets risks are rooted in three main pillars: the lack of underlying claim, their unregulated nature and the absence of a formal governance structure.[23] The deficiency related to the central authority has made crypto-assets extremely suitable for illegal actions.

The lack of underlying claim made crypto-assets subject to high volatility. In the light of this, price bubble could often occur.[24] For instance, Bitcoin exchange rate to US dollar on December17 2017 was $19,435 and about two months later, the rate fell to $6,858. In a very short period, Bitcoin exchange rate suffered a depreciation of 64,7%.[25]

Due to crypto-assets unregulated nature, customers have not protection in terms of legality, and as a consequence, it is easier for hackers to steal crypto-assets from a wallet. The most representative example deals with one of the largest cryptocurrency exchange - Mt. Gox -which filed for bankruptcy in Japan because of a lack of about 480 million US dollars owned by to its customers and to the firm itself. According to Mt. Gox statement, it is very likely that those Bitcoins were stolen and also the company firmly believes it.[26]

Thanks to distributed ledger technology, crypto-assets provide quasi-anonymous and decentralized financial flows. In the first case, the users addresses cannot be directly associated to an individual identity, indeed, the compounded algorithms behind DLT makes it difficult to individuate the real-world person.[27] Instead, in the second situation, the absence of centralised institutions, for example ECB, makes it more complicated to report transactions suspected for money-laundering or even to impose AML rules.[28]

Particularly, the crypto-assets facilitate the criminal process to clean money. The money laundering process involves three different stages: the placement, the layering and the integration.[29]

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[23] ECB, https://www.ecb.europa.eu//pub/economic bulletin/articles/2019/html/ecb.ebart201905_03~c83aeaa44c.en.html#toc4

[24]Dabrowski M., Lukasz J., *Virtual currencies and central banks monetary policy: challenges ahead*, Retrieved July 27, 2018, p. 15

[25]*Ibid*, p. 15

[26] Bloomberg, https://www.bloomberg.com/news/articles/2014-02-28/mt-gox-exchange-files-for-bankruptcy

[27]Campbell-Verduyn M,.*Bitcoin, crypto-coins, and global anti-money laundering governance*, in *Crime, Law and Social Change*, 2018, p. 4

[28] *Ibid,* p. 4

[29] Choo K.K.R., *New payment methods: a review of 2010-2012 FATF mutual evaluation reports*, Comput. Secur, 2013, p.16

In the placement step, the criminal initiates corruption into the financial system. Occasionally, illegal profits already lie in the financial structure, otherwise they come from fraudulent, bribery or criminal activity. In this phase, money is deposited into a bank account through its entire amount or small sums of cash.[30]

Talking about layering, the funds previously deposited can be channelled through different investments or moved into a series of accounts in several banks. In this step, the money launderer tries to hide the transfers of funds buying products or services to legalize them, for instance, purchasing cryptocurrency for an amount that would be effective only under a certain threshold avoiding the report requirement or triggering identification. Moreover, the criminal can engage a third party or can find a front company to ensure the process.[31]

In the integration stage, money is already clean and appear legally received, indeed, it would be notably difficult to distinguish money originating from a legal activity from those earned through an illicit one.

In order to understand how crypto-assets could be used to undermine the anti-money laundering work, showed in details in AML5, a brief practical case is going to be displayed in the following lines.

*"Person P is in possession of cash originating from illicit activities. In a country with low AML standards, he deposits the cash with a bank. He seeks to purchase 10 Monero tokens (XMR) which provide a high level of anonymity. These tokens are only available on crypto markets. Therefore, at first, P has to open up a user account at a cryptocurrency exchange. This exchange provides him with a wallet (pair of public and private key). P transfers a certain amount of fiat money from his bank account to the cryptocurrency exchange. Here, P can exchange the fiat currency into Bitcoins. P now opens up a user account at a crypto market that provides him with another pair of keys. Subsequently, he transfers the Bitcoins from the cryptocurrency exchange to the crypto market. There, he exchanges Bitcoins into Monero tokens.*

*P could exchange the Monero tokens back into 'white money' himself by following the same steps in reverse order. As the tokens can be transferred cross borders between different wallets, P could do so in any other country. Alternatively, he can transfer the tokens to other persons*

[30]Chuen D. L. K., *Handbook of digital currency: Bitcoin, innovation, financial instruments, and big data*. Academic Press, 2015, p. 302

[31] Choo K.K.R., *New payment methods: a review of 2010-2012 FATF mutual evaluation reports*, Comput. Secur, 2013, p. 16

*that then conduct the exchange. Additionally, a tumbler service can be used. This way, P has laundered his illicitly earned money."*[32]

As it is possible to note in the practical example, the money laundering process is as fast as easy, whether crypto-assets are involved. Criminals, who get illicit money by means of cryptocurrencies, could clean up dirty money or financing terrorism anonymously. As a matter of fact, the copious number of intermediaries and providers of service throughout the chain of crypto-assets make it complicated to extract information about the origins of the tokens.

As described in the practical case, the choice of the nation plays an important role: a criminal must identify those nations with a low measure application of the 5th anti-money laundering directive. There are several countries that do not specifically regulate crypto-assets, but only have to give communication of suspicious transactions, for instance Argentina or South Africa.[33] On the other hand, other countries exercise the 5th anti-money laundering legal instrument in its national law, for example Italy.[34]

At this stage, a key element to be considered is represented by the choice of tokens: the criminal has to recognize the best cryptocurrency in term of untraceability. In this specific case, Monero is one of the cryptocurrencies that most focuses on private and censorship transaction. Through cryptography, this latter covers up sending and receiving addresses together with the amount of money, in order to hide the user.[35] On the opposite, Bitcoin and Ethereum, which have a transparent blockchain, provide more transparency and traceability.

The next step for criminals who earn money from illegal activities is to open an account at the cryptocurrencies exchange, the second market in which cryptocurrency can be interchangeable only with fiat money. At this point, the lawbreakers have to exchange illicit money from their bank account into cryptocurrencies. Then, they proceed opening an account at the crypto market in order to obtain tokens with other private keys and censor over the transaction, Monero in our case. All things considered, the money launderers have basically two options: the first one is to repeat backward the same steps obtaining "white money"[36] by themselves.

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[32] Haffke L., Fromberger M., Zimmermann P., *'Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* in *Journal of Banking Regulation,* 2019, p. 7

[33] FATF:*Report to G20 Finance Ministers and Central Bank Governors*, July 2018, p. 3

[34] Legislative Decree No. 90 of 25 May 2017, OJ No 140, 19 June 2017

[35] Monero, https://www.getmonero.org/

[36] Haffke L., Fromberger M., Zimmermann P., *'Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* in *Journal of Banking Regulation,* 2019, p. 7

Owning various wallets cross-country, they will be able to do all money-laundering procedures in every country. Instead, unlike the previous option, the second one foresees a third party that will run the transfers.

Looking at the practical case, it seems evident how easy money-laundering is using crypto-asset, in details with the application of cryptocurrencies.

## What is the EU response to the risks of crypto-assets?

According to the Financial Action Task Force (FATF) report to G20 Finance Minister and Central Bank Governors, the use of crypto-assets for money laundering activities has increased in the recent years. Since the 2010 report[37], FATF put on alert the new payment methods, considering the risk of the use digital currencies and unregulated exchanges.[38] Nevertheless, only in 2015 the inter-governmental body issued a new guide suggesting AML to focus on "the points of intersection that provide gateways to the regulated financial system"[39], rather than trying to regulate the individual who deals with crypto-assets.[40] For this reason, EU legislators focus their attention on this problem: trying to regulate the matter, they amended the 4th anti money-laundering directive in order to integrate crypto-asset into the new anti-money laundering regulation.

The 5th anti-money laundering directive introduced a first definition of the term virtual currency: in order to legally define these crypto-assets, Directive 2018/843 modifies the previous one at Article 3(18):

"*"virtual currencies" means 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."*[41]

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[37] FATF, *Money Laundering Using New Payment Methods*. oct. 2010

[38] Kurtz G.,*Cryptocurrencies and anti-money laundering regulation in the G20 Authors*, 2019, p. 18

[39]FATF, *Guidance for a Risk-Based Approach to Virtual Currencies - Convertible Virtual Currency Exchangers*. jun. 2015, p. 3

[40]Kurtz G.,*Cryptocurrencies and anti-money laundering regulation in the G20 Authors*, 2019, p. 18

[41] AMLD5 Art. 1(2)(d); AMLD4 Art. 3(18) in its amended version

In addition, the 5th AML law explains the difference between virtual currencies and electronic money. Since both of them are not physically represented by banknotes and coins, some doubts emerged. As stated by Directive 2009/110/EC, electronic money can be described as:

*"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."*[42]

In the light of this definition, electronic money is a digital representation of fiat money and, behind the request of the electronic money holders, member States of the European Union should guarantee that electronic money issuers pay off the monetary value of the electronic money held at par value.[43] Although some of the cryptocurrencies can be convertible into fiat money, they are not ensured by any public authorities or central bank.[44] For this reason, cryptocurrencies cannot be incorporated with the definition of electronic money.

In terms of time, cryptocurrency represents the first type of crypto-assets that was ever created. After that, other forms of crypto-assets were issued; one example is the ICOs, which initiates the differentiation of virtual-assets: certain crypto-assets give property rights in form of ownership or dividends claim as investment tokens; others enable to obtain products and services through DLT platform like utility tokens.[45] This process, also known as tokenisation[46] process, transforms the perception of tokens not limiting its function to a mere mean of payment.

However, the fast evolution of crypto-assets could make outdated the recent efforts of the 5th anti money-laundering directive, principally due to the fact that the definition of cryptocurrencies as a *"mean of exchange*" no longer includes all types of crypto-assets.

Indeed, the law definition of virtual currency expands its functions: initially, the European Commission proposed to describe it as a "*mean of payment*" but, since it constitutes "*a digital representation of a value",* the commission asserted that it was more correct to regard this

[42] Article 2(2) Directive 2009/110/EC
[43] Art. 11 Directive 2009/110/EC on Electronic Money.
[44] AMLD5 Art. 1(2)(d); AMLD4 Art. 3(18) in its amended version
[45]Maume P., Fromberger M., Rivero A., *Distributed Ledger Technology and Token Offering Regulation*, 2018, p. 559
[46]Burilov V., *Regulation of Crypto Tokens and Initial Coin Offerings in the EU, de legelata and de lege ferenda*, 6 European Journal of Comparative Law and Governance, 2019, p. 147

currency as *“a means of exchange”*[47]. Moreover, Article 3(18) of Directive 2018/843 includes the functions of storage, investment and transfer.

In addition, a list of potential uses is carried out by the recital 10 of AML5, as follows:

*“Although virtual currencies can frequently be used as a means of payment, they could also be used for other purposes and find broader applications such as means of exchange, investment, store-of-value products or use in online casinos.”*[48]

In this sense, the EU legislator tried to guarantee that all crypto-assets fall within the scope of the 5th anti money-laundering regulation, in fact, the main purpose of the directive is to cover all the potential uses of virtual currencies.[49]

An important introduction that has strengthened the AML architecture concerns the identification and the definition of the obliged entities. The first type of entities that have been identified involves natural or legal persons, who in the practice of their profession provide exchange service between virtual currencies and fiat money.[50] The amendment of Directive 2015/849 Art. 2 has added point (g), as follows:

*“providers engaged in exchange services between virtual currencies and fiat currencies;”*[51]

The article covers several cryptocurrencies that can be converted into different fiat currencies. An example could be Coinbase, a platform which exchanges virtual currencies into fiat ones.[52] In the light of this, all cryptocurrencies of that type are entities which fall within the AML5 scope.

The second obliged entities inserted in the directive regards the wallet providers. [53] In addition, a definition that clarifies the task is contained in Art. 3(19) of AML5. In this latter, the focus is on the role and on the functions of a custodian wallet provider:

*““custodian wallet provider” means an entity that provides services to safeguard private cryptographic keys on behalf of its customers, to hold, store and transfer virtual currencies.”*[54]

[47]Covolo V., *The EU Response to Criminal Misuse of Cryptocurrencies: The Young, Already Outdated 5th Anti-Money Laundering Directive*, University of Luxembourg Law, Working Paper No. 2019-015., 2019, p. 12
[48] AMLD5 Rec. 10
[49]*Ibid*
[50] AMLD5 Art. 1(1)(c); AMLD4 Art. 2(1)(3)(g) in its amended version
[51]*Ibid*
[52]The 100 Cryptocurrencies by Market Capitalization, https://www.coinbase.com/?locale=it
[53] AMLD4 Art. 2(1)(3)(h) in its amended version

Consequently, other types of digital wallets are kept out from the scope of Directive 2018/843, in particular: providers of hardware and software solutions that facilitate transfers among users, entities that sell physical instrument as USB stick and providers of app that allow to store tokens on different devices, do not constitute obliged entities within the meaning of the 5th anti-money laundering.[55]

Another innovative insertion that should be discussed is about the substitution of Art. 47 (1) of Directive 2015/849 with:

*"Member States shall ensure that providers of exchange services between virtual currencies and fiat currencies, and custodian wallet providers, are registered […]."*

This article underlines the will of EU legislators to ensure more control over the field of crypto-assets. In particular, they want to reinforce the law in order to guarantee a form of control over the work on these subjects. Nevertheless, according to what the article states, the providers still have too much freedom of action, since they only need to register to the national authorities and are not required to get a license.

The EU response to the fast evolution of the anti-money laundering risk related to crypto-assets was reasonable if we take in account the aim of the recital 8 of Directive 843/20018. Yet, if we look at the world of crypto-assets as a whole, the EU response still lacks of several issues, causing significant gaps that should be filled as soon as possible.

## What are the main gaps in the 5th anti-money laundering directive?

The introduction of AML5 provides a certain degree of guidance within the crypto-assets world. Nevertheless, a large number of legislative gaps, mostly due to the fast evolution of the crypto-world, can still be found in EU law.

The first problem concerns the definition of virtual currencies as "*a digital representation of value […] accepted by natural or legal persons as a means of exchange".*[56] In fact, this description allows different interpretations: firstly, if we interpret them as means of exchange

[54] AMLD5 art. 3(19)

[55]Covolo V., *The EU Response to Criminal Misuse of Cryptocurrencies: The Young, Already Outdated 5th Anti-Money Laundering Directive*, University of Luxembourg Law, Working Paper No. 2019-015., 2019, p. 12

[56] AMLD 5 Art. 1(2)(d); AMLD4 Art. 4 (18) in its amended version

from the economic point of view, they describe the function of money, and so, they do not fall within the tradable character of goods. Instead, they define the intermediary objects that help trade of services and products among people. [57] In this case, only the category of currency tokens is covered by AML5, leaving out the utility and investment tokens, since these latter ones cannot be employed as intermediary assets in trade.[58]

Although EU legislators want to cover all the potential uses of crypto-assets with Directive 843/2018, some misspecifications have arisen. In this way, the legal uncertainty could negatively affect the identification of the actors involved, namely obliged entities.

In the light of this unclarified definition, some scholars' idea was to propose a modification of the article 3(18) so that all types of tokens could be included and treated equally. The adjustment would be the following:

*"[…] by natural or legal persons as a means of payment or a means exchange or which is used for purposes such as investment or redemption for goods or services, and which can be transferred, stored and traded electronically."*[59]

The expression "such as" would help to cover all the possible uses of tokens, allowing them to fall within the next anti-money laundering directive.

Another gap that should be taken into consideration is represented by the classification of only providers who exchange cryptocurrencies into fiat money and vice versa. In this sense, all types of virtual currencies tradable into fiat money are involved into AMLD5. In other words, only those providers who convert crypto into fiat currencies are considered obliged entities. Neither investment nor utility tokens against fiat money could fall within the directive.

Consequently, even the crypto-to-crypto providers are left outside the category of obliged entities.[60] This represents a problem for the anti-money laundering law, allowing users to exchange anonymously crypto tokens to other ones.

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[57]Haffke L., Fromberger M., Zimmermann P., *'Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* in *Journal of Banking Regulation,* 2019, p. 12
[58]*Ibid*. p. 13
[59]Haffke L., Fromberger M., Zimmermann P., *'Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* in *Journal of Banking Regulation,* 2019, p. 14
[60]Robby H., Snyers A., *Cryptocurrencies and blockchain: Legal context and implications for financial crime, money laundering and tax evasion*. 2018, p. 77

According to the definition of wallet providers, they enable to protect the private cryptographic keys. Whenever they ask the client to personally put in the private key for each transaction, some issues emerge: since private keys cannot be stored, wallet providers would no longer safeguard private keys. In this way, they become non-wallet providers, who are not regulated by the AMLD5, giving some legislative discrepancies and a wide range of action to the criminals. Thus, a possible extension of the anti-money laundering directive should be taken into account by EU legislators, in order to cover even non-wallet providers.

In fact, if wallet providers and non-wallet providers definition is extended, it would be difficult for the transactions to remain anonymous afterward.[61]

One of the most important roles in the scheme of cryptocurrency exchange is undoubtedly the user. Users participate to the transaction of tokens and for this reason they should be included in the EU law. As a matter of fact, the 5th anti-money laundering directive proposed a system of self-declaration, which facilitate the identification of the users to the authorities on a voluntary basis[62]. Nevertheless, an intentional self-proclaim is not strong enough to regulate this segment of cryptocurrency scheme, and for this reason it would be necessary to make it compulsory.

Another issue concerns the tumbler-services providers. As it has been mentioned in the first paragraph of this paper, tumbler services are supplied by firms to disguise the origin of tokens simulating a large number of codes. The fact that they are not regulated by the 5th anti-money laundering directive as obliged entities allows criminal to take advantages from anonymity. Indeed, if the tokens pass through a tumbler service then is almost impossible to trace them back.

According to the "know your customer" principle of AMLD, the obliged entities have the necessity to control and report information about suspicious transaction.[63] In this sense, if the true intention of EU legislators is to regulate and avoid money laundering, the inclusion of such providers is essential. This is the reason why tumbler services should be included in the list of obliged entities.

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[61]Haffke L., Fromberger M., Zimmermann P., *'Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* in *Journal of Banking Regulation,* 2019, p. 17

[62] Art. 65 (1) Directive 2015/849/EU

[63]Haffke L., Fromberger M., Zimmermann P., *'Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* in *Journal of Banking Regulation,* 2019, p. 18

In particular, tumbler services help to exchange cryptocurrency into another of the same type. Some scholars proposed to extend the art. 1(1) of the AMLD5 as follows:

*"Providers engaged in exchange services between virtual currencies and fiat currencies or between virtual currencies; <u>this includes providers of services that exchange one virtual currency into the same virtual currency, irrespective of whether the service is used by a single user or for a transaction between multiple users</u>."*[64]

The directive explains that all tumbler services should be regarded as important actors. Consequently, member States ought to take into serious consideration including this definition whiting their national AML laws.

## Conclusion

This work purpose is to show the effect that crypto-assets have on money laundering and, therefore, how institutions are coping with it. The effect of these new means of exchange has brought both advantages and disadvantages. Nevertheless, their fast evolution makes it difficult for EU legislator to regulate them, given the large number of operations and actors involved in the crypto-assets scheme. In this sense, a serious effort and a really hard work are required in order to handle the issue.

The 5th anti-money laundering directive has tried to tackle this problem. As a matter of fact, this directive regulates some definitions and providers. In particular, the introduction of the definition of virtual currency as a *"mean of exchange"* is very useful and represents a huge step toward an efficient regulation of all types of tokens. Furthermore, the explanation of the distinction between crypto currency and electronic money helps clarify and delineate the function of the tokens.

The introduction of providers, who exchange crypto into fiat currency, and wallet providers significantly strengthen the architecture of the directive. In this way, the control over the users of these innovative means of exchange could be easily identified, thanks to the principle of knowing your customer and the one of due diligence applied to obliged entities of AMLD5.

Despite this, the gaps EU legislators should fill are many and varied, such as expanding the list of obliged entity, improving the definition of virtual currencies and of those providers, who are

[64] *Ibid*. p. 18

already registered. All things considered, the effort of institutions to cover the crypto-world as wide as possible, with the scope of preventing money laundering, still need to be fortified.

## Bibliography


- AMLD5 Art. 1(1)(c); AMLD4 Art. 2 (1)(3)(g) in its amended version
- AMLD5 Art. 1(2)(d); AMLD4 Art. 3 (18) in its amended version
- AMLD 5 Art. 1(2)(d); AMLD4 Art. 4 (18) in its amended version
- AMLD4 Art. 2(1)(3)(h) in its amended version
- AMLD5 Art. 3(19)
- AMLD5 Rec. 10
- Bullmann D., Klemm J., Pinna A., *In search for stability in crypto-assets: Are stablecoins the solution?,* ECB Occasional Paper, No. 230, 2019
- Burilov V., *Regulation of Crypto Tokens and Initial Coin Offerings in the EU, de legelata and de lege ferenda*, 6 European Journal of Comparative Law and Governance, 2019
- Campbell-Verduyn M., *Bitcoin, crypto-coins, and global anti-money laundering governance*, in *Crime, Law and Social Change*, 2018
- Choo K.K.R., *New payment methods: a review of 2010-2012 FATF mutual evaluation reports*, Comput. Secur, 2013
- Chuen D. L. K., *Handbook of digital currency: Bitcoin, innovation, financial instruments, and big data*. Academic Press, 2015
- Covolo V., *The EU Response to Criminal Misuse of Cryptocurrencies: The Young, Already Outdated 5th Anti-Money Laundering Directive*, University of Luxembourg Law, Working Paper No. 2019-015., 2019
- Dabrowski M., Lukasz J., *Virtual currencies and central banks monetary policy: challenges ahead*, Retrieved July 27 2018
- De Filippi P., wright A., *Blockchain and the Law: The rule of code,* Harvard University Press, Massachusett, 2018

– DIRECTIVE 2009/110/EC

– DIRECTIVE 2009/110/EC on Electronic Money

– DIRECTIVE 2015/849/EU

– EBA, *Report with advice for the European Commission*, 9 January 2019 FATF: Report to G20 Finance Ministers and Central Bank Governors, July 2019

– FATF, *Guidance for a Risk-Based Approach to Virtual Currencies - Convertible Virtual Currency Exchangers*, jun. 2015

– FATF, *Money Laundering Using New Payment Methods*. oct. 2010

– FATF, *Report to G20 Finance Ministers and Central Bank Governors*, July 2018

– Foley S., Karlsen J., Putniņš T., *Sex, Drugs, and Bitcoin: How Much Illegal Activity Is Financed through Cryptocurrencies?,* in *The Review of Financial Studies*, Volume 32, Issue 5, 2019

– Haffke, L., Fromberger, M., Zimmermann, P*. Cryptocurrencies and anti-money laundering: the shortcomings of the fifth AML Directive (EU) and how to address them,* Journal of Banking Regulation, 2019

– Kurtz G., *Cryptocurrencies and anti-money laundering regulation in the G20 Authors***,** 2019

– LEGISLATIVE DECREE No. 90 of 25 May 2017, OJ No 140, 19 June 2017

– Lopez C., Nudelsman S., Girault A., Serrate J., *The Crypto-Assets Experience: Give Technology a Chance without Milking Users nor Investors (and Keep Close International Oversight on Potential Collateral Damage),* 2020

– Maume, P., Fromberger, M., Rivero, A., *Distributed Ledger Technology and Token Offering Regulation*, 2018

– Nakamoto S., *Bitcoin*: *A Peer-to-Peer Electronic Cash System*, 2008

– Robby H., Snyers A., *Cryptocurrencies and blockchain: Legal context and implications for financial crime, money laundering and tax evasion*, 2018

## Sitography

– Bloomberg, available at https://www.bloomberg.com/news/articles/2014-02-28/mt-gox-exchange-files-for-bankruptcy

– Coinbase, available at https://www.coinbase.com/?locale=it

- ECB, available at https://www.ecb.europa.eu//pub/economicbulletin/articles/2019/html/ecb.ebart201905_03~c83aeaa44c.en.html#toc4
- IBA Anti-Money Laundering Forum-Europe, available at https://www.anti-moneylaundering.org/Europe.aspx
- Monero, available at https://www.getmonero.org/
- The 100 Cryptocurrencies by Market Capitalization, available at https://coinmarketcap.com/