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EUROPEAN PAYMENTS IN THE FORESEEABLE FUTURE: IN PURSUIT OF A COHERENT LEGAL FRAMEWORK FOR STABLECOINS

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EUROPEAN PAYMENTS IN THE FORESEEABLE FUTURE: IN PURSUIT OF A COHERENT LEGAL FRAMEWORK FOR STABLECOINS°

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La proposta di regolamento sul mercato dei crypto-asset (MiCA) delinea un quadro normativo per due tipi di stablecoin, quelli collegati ad un'attività finanziaria e quelli con funzione di pagamento. Il presente lavoro intende contestualizzare la proposta nel mercato interno dei pagamenti. A questo scopo, dopo un breve richiamo alla natura giuridica dei crypto-asset, esamina la proposta di regolamento alla luce della disciplina europea in tema di servizi di pagamento e moneta elettronica.

The proposal for a Regulation on Markets in Crypto-assets (MiCA Regulation proposal) establishes a legal regime for two kinds of stablecoins: the asset-referenced tokens and the electronic money tokens, which are said to be intended primarily as a means of payment. This paper aims to make a first approach to their proposed regime and to analyse whether the interplay between the MiCA Regulation proposal and the standing payments legislation is coherent. For that purpose, after a short reference to the legal nature (or its lack of determination) of cryptocurrencies in general, the proposal and the particular tokens are introduced. On this basis, the scopes of the Second Directive on Payment Services, as well as the Second Directive on Electronic Money are briefly described, so afterwards the applicability of these pieces of legislation to the specific regimes of asset-referenced and electronic money tokens can be analysed, in regard to both the issuance of the tokens and the further transactions executed in relation to them.

Summary:

° Double blind peer-reviewed paper.

1. Introduction

The Digital Finance Package was released on the twenty-fourth of September 2020. It aims to boost a single market in this area, paving the way for Europe to become a global standard-setter. The package includes the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a Digital Finance Strategy for the EU (COM/2020/591 final) and the Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a Retail Payments Strategy for the EU (COM/2020/592 final); but also four legislative initiatives: the Proposal for a Regulation of the European Parliament and of the Council on Markets in Crypto-assets, and amending Directive (EU) 2019/1937 (COM/2020/593 final); the Proposal for a Regulation of the European Parliament and of the Council on pilot regime for market infrastructures based on distributed ledger technology (COM/2020/594 final); the Proposal for a Regulation of the European Parliament and of the Council on digital operational resilience for the financial sector and amending Regulations (EC) No 1060/2009, (EU) No 648/2012, (EU) No 600/2014 and (EU) No 909/2014 (COM/2020/595 final) and the Proposal for a Directive of the European Parliament and of the Council mending Directives 2006/43/EC, 2009/65/EC, 2009/138/EU, 2011/61/EU, EU/2013/36, 2014/65/EU, (EU) 2015/2366 and EU/2016/2341 (COM/2020/596 final).

Digital innovation is reshaping financial markets, even disrupting established principles on how financial service providers operate and approach customers[1], so the European legal framework needs to evolve accordingly. Specially distributed ledger technology (from here on referred to as DLT)[2] is making quite an impact on these markets, as it has a wide variety of applications in insurance services and notably in markets of financial instruments and payment services.

[1] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets, European Union Law Working Paper No. 55*, Stanford-Vienna, 2021, 1.

[2] The World Bank describes the distributed ledger technology as «a novel and fast-evolving approach to recording and sharing data across multiple data stores (ledgers), which each have the exact same data records and are collectively maintained and controlled by a distributed network of computer servers, which are all called nodes» (KRAUSE - NATARAJAN - GRADSTEIN, *Distributed Ledger Technology (DLT) and blockchain, FinTech note No. 1*, Washington, 2017, 1). Blockchain is a type of DLT, on the difference between them and characteristics of the former see KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 5-10.

Currently, although some crypto-assets qualify as financial instruments as defined in Directive 2014/65/EU, most of them fall outside of the scope of European legislation on financial services which leads to a lack of holders' protection and can also lead to substantial risks to market integrity in the secondary market of crypto-assets[3]. That is the reason why some Member States as Italy, Luxemburg or Finland have already enacted specific rules for crypto-assets, and many other Member States have established some specific provisions in their financial or banking legislation beyond anti money laundering rules, for example Germany and Sweden[4]. However, since there is not a minimum harmonization that could potentially result in regulatory fragmentation, circumvention of existing legal framework as well as regulatory arbitrage and a lack of users' confidence in crypto-assets.[5]

Furthermore, crypto-assets are inherently cross-border products so the lack of legal certainty and the divergent frameworks across the EU mean that crypto-assets service providers need to comply with several national laws and obtain multiple authorisations or registrations creating an uneven playing field for these companies depending on their location. Moreover, it has a high cost that could end up undermining companies' innovation, distorting competition in the Single Market and giving rise to regulatory arbitrage, leaving consumers and investors exposed to substantial risks.[6]

These are the reasons that justify the proposal for a harmonised legal framework on crypto-assets and related activities and services.

The MiCA Regulation proposal has four general objectives which are interrelated. The first objective is to provide legal certainty that enables the development of a European crypto-asset market. The second one is to support innovation by providing a proportionate regulatory treatment of all crypto-assets that ensures fair competition. The third objective is to establish appropriate levels of consumer and investor protection. And finally, the fourth objective is to ensure financial stability, in particular, considering the risks that could arise from stablecoins potentially becoming widely accepted.[7]

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[3] Recital 3 MiCA Regulation Proposal.

[4] COINSAHERES, *Cryptocurrency Concerns vs Regulations in Europe*, Available at: https://coinshares.com/research/crypto-concerns-regulations

[5] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets,* cit., 123. ZETZSCHE - ANNUNZIATA - ARNER - BUCKLEY, *The Markets in Crypto-Assets Regulation (MICA) and the EU Digital Finance Strategy, EBI Working Paper Series No. 77,* 2020, 8.

[6] MiCA Regulation proposal's explanatory memorandum, 5-6.

[7] See KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets,* cit., 16-17.

It has been said that the proposed regulation has four driving forces. First, eliminating the doubts about the issuance of security tokens. Second, to supervise the crypto market in its entirety. Third, to put an end to regulatory arbitrage and forum shopping in the crypto sector. Finally, and most importantly, to put a regulatory stop to stablecoins projects such as Facebook's Diem (formerly known as Libra), whose potential impact could reach millions of people right away.[8]

Nowadays the dimension of crypto-asset market is still relatively small. But there is a serious concern that those crypto-assets commonly referred to as stablecoins, which link their value to either fiat currencies, assets or a combination of various of the previous ones, could be widely adopted as a means of payment by consumers, posing a threat not only to financial stability but also to monetary policy transmission and to monetary sovereignty.[9] The purpose of this paper is to attempt a first approach to the legal regime proposed on the MiCA Regulation for such types of crypto-assets and analyse the level of coherence and how it would interplay with Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC (hereinafter, PSD2), and Directive 2009/110/EC of the European Parliament and of the Council of 16 September 2009 on the taking up, pursuit and prudential supervision of the business of electronic money institutions amending Directives 2005/60/EC and 2006/48/EC and repealing Directive 2000/46/EC (hereinafter, EMD2). This study might be of particular interest at this point considering, on one side, that the MiCA Regulation proposal is in an early stage of debate and, on the other side, that the PSD2's review procedure is beginning by the end of 2021.[10]

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[8] MARTÍ, *Aproximación a la propuesta de Reglamento UE relativo a los mercados de criptoactivos: Mica*, in BELANDO - MARIMÓN (eds.), *Retos del mercado financiero digital*, Cizur Menor, 2021, 2.

[9] LARA, *Criptomonedas ¿Riesgos o ventajas?*, in BELANDO - MARIMÓN (eds.), *Retos del mercado financiero digital*, Cizur Menor, 2021, 6.

[10] In accordance to the review clause set in article 108 PSD2, the Commission should have prepared a report on the application and impact of this Directive by 13 January 2021. This new expected date was announced in the Payments Strategy for the EU, as well as the plan to present a legislative proposal for an Open Finance framework by mid-2022. It remains to be seen whether there is a new PSD3 or the PSD2 content is updated and embedded in that new law (COM/2020/592 final, 17). Two public consultations on instant payments have been already launched, one is addressed to a broad range of stakeholders (https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/12931-Instant-

2. An approximation to the legal nature of the cryptocurrencies

As it will be shown later, crypto-asset is a broad concept. When talking about its legal nature its different types should be distinguished. A first distinction is made between protocol tokens and application tokens. The former are the ones created and initially distributed as a reward for members of a network that contribute to the maintenance of the blockchain and its network assets. The latter, in contrast, are crypto-assets that created through a smart contract that creates an application on a blockchain. So, the distinction depends on the creation of the crypto-asset. Further, literature typically differentiates crypto-assets according to their predominantly intended use case: payment, utility or investment. A payment token is a crypto-asset intended to be used as digital cash. A utility token grants the holder some functional utility other than payment for external goods or services, commonly in the form of access to a product or service of the issuer of the crypto-asset. Finally, an investment or security token represents a derivative, shares in a company, bonds, etc.[11]

For the purpose of this paper, this section is focused on the kind of crypto-asset that could be used as a means of exchange. Namely, the so-called cryptocurrencies or virtual currencies, that is to say, payment tokens. Stablecoins are a subcategory of them. They are called like that because, often to be used as a means of payment, their value is stabilised. There are many ways of stabilisation. For instance, by linking the stablecoin value to a fiat currency (or a basket of different currencies), or to other assets (either traditional ones such as securities and commodities or crypto-assets), but also, there exist «algorithmic stablecoins» which are backed by users' expectations about the future purchasing power of their holdings.[12] Actually, ECB Crypto-Assets task force classifies them into four

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Payments/public-consultation_en) while the other one is targeted to PSPs (https://ec.europa.eu/info/consultations/finance-2021-instant-payments-targeted_en).

[11] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 5-10. STEINER, *Krypto-Assets und das Aufsichtsrecht: Security-, Payment- und Utility-Token und ihre aufsichtsrechtliche Einordnung*, Vienna, 2019, 20-22. HACKER - THOMALE, *Crypto-Securities Regulation: ICOs, Token Sales and*

Cryptocurrencies under EU Financial Law, in *European Company and Financial Law Review No. 15, 2018*, 649-650 (with further references). PERNICE, C*riptovalute, tra legislazione vigente e diritto vivente*, in *Ianus. Diritto e Finanza No. 2*, 2020, 44-45. ZETZSCHE - ANNUNZIATA - ARNER - BUCKLEY, *The Markets in Crypto-Assets Regulation (MICA) and the EU Digital Finance Strategy, EBI Working Paper Series No. 77*, 2020, 5-6.

[12] EUROPEAN CENTRAL BANK, *Stablecoins - no coins, but are they stable?*, *In Focus*, Issue n. 3, 2019, 2-5.

types, based on their design: (i) tokenised funds; (ii) off-chain collateralised stablecoins; (iii) on-chain collateralised stablecoins; and (iv) algorithmic stablecoins.[13] This section intends a general approach on the legal nature of cryptocurrencies, whereas in section 4 stablecoins as regulated under MiCA Regulation proposal are analysed.[14]

Directive (EU) 2018/843 of the European Parliament and of the Council of 30 May 2018 amending Directive (EU) 2015/849 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, and amending Directives 2009/138/EC and 2013/36/EU, was the first piece of European legislation that gave a concept of virtual currencies. It added a point 18 in article 3 of Directive (UE) 2015/849 that «for the purpose of this Directive» defined 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»[15]. This definition is clearly intended to distinguish a "virtual currency" from the currency issued by a State, hence the former does not possess the legal status of money.[16]

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[13] ECB CRYPTO-ASSETS TASK FORCE, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit., 7.

[14] On an analysis of the nature of stablecoins before MiCA see AVGOULEAS - BLAIR, *The concept of money in the 4th Industrial revolution – A legal and economic analysis*, in *Singapore Journal of Legal Studies*, 2020, 23 ss.

[15] Directive (EU) 2018/843 has been transposed to the Italian legal system by Decreto Legislativo 4 ottobre 2019, n. 125 , although Decreto Legislativo 25 maggio 2017, n. 90 already estabilshed almost the exact same definition: «valuta virtuale: la rappresentazione digitale di valore, non emessa da una banca centrale o da un'autorita' pubblica, non necessariamente collegata a una valuta avente corso legale, utilizzata come mezzo di scambio per l'acquisto di beni e servizi e trasferita, archiviata e negoziata elettronicamente». By the time the Directive should be transposed, there was not a legal definition of virtual currency in Spanish legislation. The Real Decreto-ley 7/2021, de 27 de abril, de transposición de directivas de la Unión Europea en las materias de competencia, prevención del blanqueo de capitales, entidades de crédito, telecomunicaciones, medidas tributarias, prevención y reparación de daños medioambientales, desplazamiento de trabajadores en la prestación de servicios transnacionales y defensa de los consumidores, which is the national law that transposed Directive (EU) 2018/843, was the first law that included a legal concept of virtual currency.

[16] AVGOULEAS - BLAIR, *The concept of money in the 4th Industrial revolution – A legal and economic analysis*, in *Singapore Journal of Legal Studies*, 2020, 30. Considering how electronic money tokens are regulated under the MiCA Regulation Proposal, these authors rightly predicted that «the 5MLD definition appears to leave open the possibility that a "stable coin" which is "necessarily attached" to a "legally established currency" should be treated as "money"».

Although this definition has helped to analyse the legal nature of virtual currencies, there is not yet agreement among academics, whose categorisations have ranged from the qualification of cryptocurrencies as securities, through their definition as digital, non-fungible movable property, to finally their consideration as currency or means of payment which, at present, seem to be the most spread one (and actually the one embedded in the Directive).[17] The conception of cryptocurrencies as a means of exchange was firstly introduce with binding force by the Judgment of the CJEU of 22 October 2015, Skatteverket v David Hedqvist (Case C-264/14)[18] in which it was conclude that, for VAT purposes, bitcoin is a digital currency and to that extent it constitutes a means of payment, as it can be used in a similar way to legal means of payment.

Despite this first attempt to define virtual currencies based on its function of means of payment, as it is said in Recital 10 of Directive (EU) 2018/843, «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». Actually, it must be stressed that most crypto-assets are hybrids so they have elements from more than one type of token (payment, utility, investment), leaving uncertainty for users, issuers as well as regulators.[19] This fact poses major challenges from a regulatory perspective. Especially considering that one of the main principles that should inspire EU financial legislation is the principle of «same activity, same risk, same rules».[20]

[17] PASTOR, *La digitalización del dinero y los pagos en la economía de mercado digital pos-COVID*, in *Ekonomiaz No. 98*, 2020, 306.

[18] ECLI:EU:C:2015:718.

[19] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 13, 19. HACKER - THOMALE, *Crypto-Securities Regulation: ICOs, Token Sales and Cryptocurrencies under EU Financial Law*, cit., 678 ss. ZETZSCHE - ANNUNZIATA - ARNER - BUCKLEY, *The Markets in Crypto-Assets Regulation (MICA) and the EU Digital Finance Strategy, EBI Working Paper Series No. 77*, 2020, 7. AVGOULEAS - BLAIR, *The concept of money in the 4th Industrial revolution – A legal and economic analysis*, in *Singapore Journal of Legal Studies*, 2020, 14.

[20] That is to say that EU financial regulations focuses on the economic functions rather than other elements, such as certain technologies (ZETZSCHE - ANNUNZIATA - ARNER - BUCKLEY, *The Markets in Crypto-Assets Regulation (MICA) and the EU Digital Finance Strategy, EBI Working Paper Series No. 77*, 2020, 4). When talking about Global Stablecoins, The Financial Stability Board also stressed that authorities should ensure this principle, which implies applying «the relevant regulation, standards and rules for e-money issuers, remittance companies, payments and financial market infrastructures, collective investment schemes, and deposit-taking and securities trading activities. This also includes market integrity, consumer and investor protection arrangements, appropriate safeguards, such as pre- and post-trade

Currently, European markets seem to prefer crypto-assets, including virtual currencies, as a means of investment rather than one of payments. But this could easily change in the middle term, namely due to stablecoins.[21] In any case, approaching cryptocurrencies as a means of payment and naming them as currencies, raises a very important question: are they money somehow? In this section it is explained why cryptocurrencies in general cannot be considered money, both from an economic and legal perspective.

Economically speaking, money has three fundamental functions: it serves as a means of payment, as a unit of account and as a store of value. As a means of payment it facilitates the exchange of goods and services, and to do so it must be widely accepted. As a unit of account, it simplifies the pricing of exchange, facilitating transactions. As a store of value, it implies that the acquisitive power emanating from its ownership (as a recognised and generally accepted means of exchange and unit of account) is relatively stable over time. At the moment, the prevailing view is that cryptocurrencies do not

transparency obligations, rules on conflicts of interest, disclosure requirements, robust systems and controls for platforms where the GSC is traded, and rules that allocate responsibility in the event of unauthorized transactions and fraud, and rules governing the irrevocability of a transfer orders ("settlement finality")» FINANCIAL STABILITY BOARD. *Addressing the regulatory, supervisory and oversight challenges raised by "global stablecoin" arrangements (consultative document)*, 2020, 27. The MiCA Regulation Proposal is considered to follow this principle, see KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 17. CANALEJAS, *Algunas cuestiones en torno a la propuesta de la Comisión europea sobre los mercados de criptoactivos (MiCA) (1)*, in *Revista de Derecho del Mercado de Valores*, nº 27, 2020, 2. DE MIGUEL, *Propuesta de Reglamento sobre los mercados de criptoactivos en la Unión Europea*, in *La Ley Unión Europea No. 85*, 2020, 2.

[21] ECB Crypto-Assets Task Force, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit., 17. In line with the previous ideas and regarding stablecoins, ECB said that «Stablecoin arrangements should be subject to relevant regulation, oversight, and supervision across all relevant functions. Efforts are underway in the EU to examine the applicability of existing rules and evaluate the need for new legislation as appropriate. These efforts should prioritise substance over form and apply the same rules to all activities that give rise to the same risks, irrespective of the technologies used or the type of service provider/operator. Furthermore, regulation, oversight and supervision should cover all relevant functions comprising a stablecoin ecosystem, including those that are not governed by a stablecoin's issuer or scheme manager. Finally, given the cross-border nature of stablecoin arrangements, international coordination is crucial to ensure consistency and prevent regulatory arbitrage». ECB Crypto-Assets Task Force, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit., 10.

fulfil these three functions[22], even the most widespread ones. Firstly, because their value is so volatile that they are of little use as a unit of account or store of value. Secondly, decentralised issuance means that there is no entity backing the asset, so acceptance is based entirely on holder's trust and is not always generalised, what limits their use as a means of exchange[23]. As a general rule, only fiat money fulfils these three functions, since it is guaranteed by its respective State so the possibility of losing its functionalities is bounded. Nevertheless, the speed of technological innovations calls for caution. The possibility that some crypto-assets may end up being widely adopted and fulfil more of the functions of money should not be categorically ruled out[24]. That is actually the concern with stablecoins and the reason why MiCA Regulation proposal regulates them[25].

From a legal perspective, not much effort is needed to affirm that cryptocurrencies are not legal tender, therefore they are not money in the legal sense since they have not been declared as such by any Member State in the EU.[26] Any currency which is legal tender has two main characteristics: it is accepted at face value and its acceptance is compulsory so it releases the debtor from its payment obligation. According to the European Banking Authority Report on crypto-assets, although it would be theoretically possible for a virtual currency to be declared legal tender in any country,[27] in the EU this will require to amend the Treaty on the Functioning of the European Union, that establishes the legal tender of the Euro and gives the ECB the exclusive power to authorise the issue of coins and banknotes (article 128)[28].

Once it is clear that cryptocurrencies are not money from a legal

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[22] INGVES, *Going cashless*, in *Finance & Development*, vol. 55, nº 2, 2018, 12. JAMES, *Lucre's allure*, in *Finance & Development*, vol. 55, No 2, 2018, 18. AVGOULEAS - BLAIR, *The concept of money in the 4th Industrial revolution – A legal and economic analysis*, in *Singapore Journal of Legal Studies*, 2020, 13.

[23] BOUVERET - HAKSAR, *What are cryptocurrencies?, Finance & Development*, vol. 55, No 2, 2018, 27.

[24] HE, *Monetary policy in the digital age*, in *Finance & Development*, vol. 55, no. 2, 2018, 14.

[25] MiCA Regulation proposal's explanatory memorandum, 2, and Recitals 4 and 25.

[26] PASTOR, *La digitalización del dinero y los pagos en la economía de mercado digital pos-COVID*, cit., 313.

[27] e.g. On the 8th of June 2022, El Salvador recognised Bitcoin as legal tender (https://www.asamblea.gob.sv/sites/default/files/documents/dictamenes/27F0BD6F-3CEC-4F52-8287-432FB35AC475.pdf) On the contrary, China declared all crypto-asset transactions illegal on the 24th of September 2022 (https://www.reuters.com/world/china/china-central-bank-vows-crackdown-cryptocurrency-trading-2021-09-24/)

[28] EUROPEAN BANKING AUTHORITY, *Report with advice for the European Commission on crypto–assets*, Paris, 2019, 13.

perspective, the remaining issue is whether they can be somehow considered electronic money. According to article 2.2 EMD2 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»[29]. Generally speaking, it has been concluded that cryptocurrencies are not electronic money either, as they usually do not represent a claim on the issuer. However, it should be stressed that there may be cases where all the elements of the legal definition of e-money are met, depending on the specific characteristics of the DLT network where the cryptocurrency is issued and transferred and those of the token itself. In its report, the EBA listed concrete examples provided by some Members States competent authorities where they had considered that a cryptocurrency fell under the EMD2's scope. For instance, a company that wished to create a Blockchain-based payment network, set up as an open network in which both merchants and consumers can participate, where the token, which was intended to be the means of payment in the network, was issued on the receipt of fiat currency at par value, and there was a right to redemption at any time. In this case, the competent authority's analysis concluded that the token was electronically stored, had monetary value, represented a claim on the issuer, was issued on receipt of funds; it was issued for the purpose of making payment transactions and it was accepted by persons other than the issuer. Therefore, this specific token satisfied the definition of electronic money under the EMD2, so its issuance required an authorisation of the issuer as an electronic money institution[30]. That being said, it is to be noted that most of the crypto-assets that qualify as payment tokens will fall outside the scope of EMD2, since it is very narrow.[31]

Referring to cryptocurrencies as a means of payment also pose the question whether PDS2 is applicable or not. Without prejudice to deeper analysis in section 4 regarding stablecoins, it should be noted now that PSD2 does not provide a definition of means of payment. The Directive uses the term in an

[29] Directive 2007/64/EC is the First Directive on Payment Services (PSD1). All PSD1 references in EMD2 shall be construed as references being made to the corresponding provisions of PSD2. In this case, payment transaction is identically defined in article 4.25 PSD2.

[30] EUROPEAN BANKING AUTHORITY, *Report with advice for the European Commission on crypto–assets*, Paris, 2019, 13.

[31] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets,* cit., 27.

ad hoc and somewhat confusing way, either as analogous to «payment instrument» or to «payment service», and it does so to avoid excessive repetition rather than for substantive reasons. For instance, Recital 6 uses «means of payment» and «payment services» interchangeably when stating «[e]quivalent operating conditions should be guaranteed, to existing and new players on the market, enabling new means of payment to reach a broader market…». On the other hand, article 96.6 uses that term equivalently to «payment instrument»[32] when saying «Member States shall ensure that payment service providers provide, at least on an annual basis, statistical data on fraud relating to different means of payment to their competent authorities». In any case, as cryptocurrencies tend to be compared with currencies which are legal tender, it is vital to know what is the definition of funds. Article 4.25 PSD2 says they are «banknotes and coins, scriptural money or electronic money as defined in point (2) of Article 2 of Directive 2009/110/EC», so more often than not, crypto-currencies are not funds, with the exception of those that qualify as electronic money.

In this respect, Recital 10 of Directive (EU) 2018/843 explicitly states that «[v]irtual currencies should not to be confused with electronic money as defined in point (2) of Article 2 of Directive 2009/110/EC of the European Parliament and of the Council, with the larger concept of 'funds' as defined in point (25) of Article 4 of Directive (EU) 2015/2366 of the European Parliament and of the Council, nor with monetary value stored on instruments exempted as specified in points (k) and (l) of Article 3 of Directive (EU) 2015/2366, nor with in-games currencies, that can be used exclusively within a specific game environment…». Cryptocurrencies are not deposits either, hence they do not benefit from protection on deposit guarantee schemes, since Directive 2014/49/EU is not applicable, but neither they are segregation rules under the EMD2 or the PSD2 (unless the specific cryptocurrency is considered electronic money)[33].

It has also been rightly pointed out that a cryptocurrency DLT network usually works as a payment system, since it is «a value transfer system where the flow of monetary assets is denominated in a private currency»[34]. Payment systems are defined in article 4.7 PSD2 as a «funds transfer system with formal and standardised arrangements and common rules for the processing,

[32] In line with the definition provided by point 14 of article 4 PSD2.

[33] EUROPEAN BANKING AUTHORITY, *Report with advice for the European Commission on crypto–assets*, Paris, 2019, 28.

[34] CATTELAN - GIMIGLIANO, *Digital currency schemes: more or less sustainable? Limits to growth and electronification of money in Europe*, in *Ianus. Diritto e Finanza*, no. 21, 2020, 34.

clearing and/or settlement of payment transactions». Although the function of a cryptocurrency DLT network is obviously comparable to the function of a traditional payment system, the former cannot be legally considered a payment system in the EU under PSD2, since cryptocurrencies do not meet the definition of funds.

All these points considered it can be concluded that cryptocurrencies do not have a univocal legal nature so far. Each particular case needs to be analysed, since its nature will depend on the specific characteristics of the cryptocurrency, that could be technologically and legally designed in various ways. There is a need to bear in mind that the purpose of the token should be an essential element to determine its legal nature, and therefore, where appropriate, its legal regime. But also it is important to be aware of the fact that the purpose of the token may change throughout its life-cycle, which is exactly what happened to Bitcoin.[35] This pose a major challenge from a legislative perspective and MiCA Regulation proposal is the first attempt to address it.

That being said, section 3 aims to provide an overview of the proposal, so stablecoins (which are a particular kind of cryptocurrencies) covered by MiCA Regulation proposal can be analysed in depth afterwards.

3. A first approach to the MiCA Regulation proposal

3.1. General layout, subject matter and scope.

The MiCA Regulation proposal starts with 79 recitals that show the complexity of the matter, which is obviously exacerbated by its novelty and by the emerging status of this fast-growing market.[36] The enacting part is divided in nine titles. Title I (articles 1 to 3) sets the subject matter, the scope and the definitions. Title II (articles 4 to 14) regulates the offerings and marketing to the public of crypto-assets other than asset-referenced tokens and e-money tokens. It is not a restricted activity to specific types of entities, but it needs to comply with the requirements set out in this title, essentially,

[35] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets,* cit., 19. ZETZSCHE - ANNUNZIATA - ARNER - BUCKLEY, *The Markets in Crypto-Assets Regulation (MICA) and the EU Digital Finance Strategy, EBI Working Paper Series No. 77,* 2020, 8. FINANCIAL STABILITY BOARD. *Addressing the regulatory, supervisory and oversight challenges raised by "global stablecoin" arrangements (consultative document)*, cit. 6.

[36] MARTÍ, *Aproximación a la propuesta de Reglamento UE relativo a los mercados de criptoactivos: Mica,* cit., 10.

regarding to the drafting of a crypto-asset white paper. Title III (articles 15 to 41) concerns asset-referenced tokens and is likewise divided in six chapters. Again, the issuer of asset-referenced tokens does not require to be a specific kind of financial institution but the offer of such tokens to the public need to be authorised by competent authorities. Seeking an admission of such assets to trading on a trading platform for crypto-assets, also has a need for authorisation. The legal regime of this type of crypto-assets is well developed as this title regulates, apart from the issuing: the obligations for the issuers, including, the obligation to have reserve assets, their composition, management, custody, investment and the holders' rights on issuers or on the reserve assets, as well as the prohibition of interest; also, the rules for the acquisition of issuers of asset-referenced tokens; the regime of significant asset-referenced tokens; and some rules on the orderly wind-down of issuers of asset-referenced activities. Title IV (articles 43 to 52) regulates electronic money tokens, which can only be issued by electronic money institutions or credit institutions, and may also be classified as significant. Title V (articles 53 to 75) has four chapters setting out the provisions on authorisation and operating conditions of crypto-asset service providers (hereinafter, CASP). Title VI (articles 76 to 80) puts in place prohibitions and requirements to prevent market abuse involving crypto-assets. Title VII (articles 81 to 120) sets out a complex supervisory regime. Finally, title VIII (article 121) enables European Commission to adopt delegated acts, and Title IX (articles 122 to 126) includes the transitional and final provisions.

In line with the objectives set out in the explanatory memorandum, the proposal aims to regulate the transparency and disclosure requirements for the issuance and admission to trading of crypto-assets; the rules for the authorisation and supervision of crypto-asset service providers and issuers of asset-referenced tokens and electronic money tokens; the operation, organisation and governance of such companies; consumer protection rules and measures to prevent market abuse (article 1 MiCA Regulation proposal).

According to article 2.1 MiCA Regulation proposal, it shall apply to any person that either issues crypto-assets or provides any services related to them in the Union. So first of all, it needs to be determined what a crypto-asset is. It is defined in article 3.1.2 as «a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology».[37] But the proposal itself distinguishes between different

[37] Article 3.3.1 MiCA Regulation Proposal defines DLT as «a type of technology that support the distributed recording of encrypted data». This approach was heavily criticized in the consultation process, so it is expected to be revised. For an in-depth explanation please see

types of crypto-assets: asset-referenced tokens, electronic money tokens, and all the crypto-assets other than those two. It is a much more general concept[38] than the established in Directive (EU) 2018/843, in coherence with the actual evolution of the market towards the proliferation of diverse types of crypto-assets with various uses, what dictates the need of a wider regulation. However, it has been pointed out that such a broad definition could lead to diverging interpretations at national level and therefore, it would be preferable to further clarify the scope of application of MiCA Regulation proposal[39].

As for what the issuance of crypto-assets is[40], in accordance with the definition of crypto-asset issuer set in article 3.1.6, it is the activity consisting of the offering to the public of any type of crypto-assets or the application for their admission of such crypto-assets to a trading platform. On the other hand, the services related to crypto-assets under the scope of the proposal are the ones established in article 3.9: the custody and administration of crypto-assets on behalf of third parties; the operation of a trading platform for crypto-assets; the exchange of crypto-assets for fiat currency that is legal tender; the exchange of crypto-assets for other crypto-assets; the execution of orders for crypto-assets on behalf of third parties; the placing of crypto-assets; the reception and transmission of orders for crypto-assets on behalf of third parties; and providing advice on crypto-assets. All of these services are defined in article 3, though for present purposes it is not necessary to go over every of them but just to focus on three of them. Firstly, article 3.10 MiCA Regulation proposal defines the custody and administration of crypto-assets on behalf of third parties as the «safekeeping or controlling, on behalf of third parties, crypto-assets or the means of access to such crypto-assets, where applicable in the form of private cryptographic keys; the exchange of crypto-

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KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 31 ss.

[38] Academics refer to it as a «catch-all definition». KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 34. CANALEJAS, *Algunas cuestiones en torno a la propuesta de la Comisión europea sobre los mercados de criptoactivos (MiCA) (1)*, in *Revista de Derecho del Mercado de Valores*, nº 27, 2020, 2. MARTÍ, *Aproximación a la propuesta de Reglamento UE relativo a los mercados de criptoactivos: Mica*, cit., 2.

[39] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets, and amending Directive (EU) 2019/1937*, (CON/2021/4), 2.

[40] Both the definition of issuer and the lack of definition of issuance have been criticised by academics, ZETZSCHE - ANNUNZIATA - ARNER - BUCKLEY, *The Markets in Crypto-Assets Regulation (MICA) and the EU Digital Finance Strategy, EBI Working Paper Series No. 77*, 2020, 24 ss. KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 40.

assets for fiat currency that is legal tender». Secondly, the concept of the exchange of crypto-assets for fiat currency is established in article 3.12 and means «concluding purchase or sale contracts concerning crypto-assets with third parties against fiat currency that is legal tender by using proprietary capital». The third and last concept of interest is the execution of orders for crypto-assets on behalf of third parties, which according to article 3.14 means «concluding agreements to buy or to sell one or more crypto-assets or to subscribe for one or more crypto-assets on behalf of third parties». We will get back to these notions whenever the connexion between MiCA Regulation proposal and PSD2 is analysed in relation to the services provided in asset-referenced tokens and electronic money tokens. In any case, it should be pointed out that those services shall only be provided by legal persons that have been authorised as CASPs in accordance with articles 53 to 55 MiCA Regulation proposal.

Last but not least, point 3 of article 2 modulates the general demarcation of the proposal's scope set out in point 1 by excluding those crypto-assets that qualify under European legislation as: regulated financial instruments[41], electronic money (except where they qualify as electronic money tokens); deposits; structures deposits or securitisation. Likewise point 4 establish some subjective exclusions, thus the MiCA Regulation shall not apply, among others, to the European Central Bank or any other central bank of a Member State when acting as a public authority; so, in case any of them finally decide to issue their own Central Bank Digital Currency (CBDC) it would not fall under the scope of this Regulation. Finally, points 5 and 6 of article 3 dispose that credit entities and investment firms authorised under the relevant European legislation shall not be subject to most of the rules about authorisation of crypto-asset service providers.

3.2. Regulated crypto-assets and their use as a means of payment

Once the MiCA Regulation proposal has been introduced, it is time to focus on the specific types of crypto-assets under the proposal that are foreseen to be used as a means of payment.

In theory, any kind of crypto-asset could be used as a medium of exchange,

[41] Nevertheless, this is precisely one of the aspects that ECB insists on elaborate on, since the distinction between crypto-assets that may be characterised as financial instruments and those which would fall under the scope of the MiCA Regulation proposal does not seem clear enough (EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 3).

just like any other good or asset/right.[42] Even if it would not make much sense, a baker could accept that a customer pays its bread with movie tickets or gold nuggets. Although that affirmation could arise the legal argument about the nature of that transaction: would it be the payment of a purchase or rather a swap agreement? In any event, among the subcategories of crypto-assets covered by the MiCA Regulation proposal there are two in particular that are intended primarily as a means of payment, to a greater or lesser extent: the asset-referenced tokens and the electronic money tokens.

An asset-referenced token is defined in point 3 of article 3 as «a type of crypto-asset that purports to maintain a stable value by referring to the value of several fiat currencies that are legal tender, one or several commodities or one or several crypto-assets, or a combination of such assets»[43]. This category would apply to stablecoins which are not pegged to a fiat currency and, importantly, which do not qualify as financial instruments.[44] Recital 9 foresees that the purpose of their value stabilisation is often to be used by their holders as a means of payment to buy goods and services and as a store of value. In the event of asset-referenced tokens becoming widely adopted by users to transfer value or as a means of payments they could pose «increased risks in terms of consumer protection and market integrity compared to other crypto-assets»[45]. That is the reason why issuers of such tokens are subject to stricter requirements than other types of crypto-assets issuers, especially regarding the management and investment of reserve assets, which should be invested in secure, low risk assets with minimal market and credit risk. Furthermore, considering the potential use of this tokens as a means of payment, their issuers should bear with the profits or losses resulting from those investments[46].

On the other hand, an electronic money token (or e-money token) is «a type of crypto-asset the main purpose of which is to be used as a means of exchange and that purports to maintain a stable value by referring to the value of a fiat currency that is legal tender» (point 4 of article 3). The definition itself states

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[42] MADRID, *Fichas de dinero electrónico,* in MADRID (ed.) *Guía de criptoactivos MiCA,* Cizur Menor, 2021, 2.

[43] As explained in Recital 26, according to this definition «algorithmic stablecoins» should not be considered as asset-referenced tokens.

[44] TOKEN ALLIANCE, *Legal Landscapes Governing Digital Tokens in the European Union*, 2021, 28 (available at: https://4actl02jlq5u2o7ouq1ymaad-wpengine.netdna-ssl.com/wp-content/uploads/2021/05/Legal-Landscapes-Governing-Digital-Tokens-in-the-European-Union.pdf)

[45] Recital 25 MiCA Regulation proposal.

[46] See Recital 39 and article 34.3 MiCA Regulation Proposal.

that an e-money token is designed for the purpose of interchange, so it is a means of payment by nature. Clearly, it has many similarities with electronic money regulated by EMD2, predominantly its function: both «are electronic surrogates for coins and banknotes and are used for making payments» [47]. However, they also have some important differences. The definition provided by article 2.2 EMD2[48] already reveals some important dissimilarities. First, holders of electronic money are always provided with a claim on the electronic money institution, but also, in accordance with article 11 EMD, they have a contractual right to redemption against fiat currency, at any time and at par value. Although, according to article 6.3 EMD, the e-money redeemability does not imply that the funds received in exchange for electronic money should be regarded as deposits. On the contrary, most of the current crypto-assets referred to a single fiat currency which is legal tender do not provide their holders with such a claim on the issuers or, even if they do, it is not at par or the redemption period is limited[49]. Confidence of users could be undermined considering that the vast majority of these crypto-assets fall outside the scope of EMD2.

When assessing the impact of the MiCA proposal it was considered whether it was better to enact a specific regulation for stablecoins, regulate them under the EMD2 or restrict the issuance and the provision of services related to stablecoins within the EU. Obviously, the last option was not consistent with the major objective of promoting innovation and situating the EU at the forefront of digital and modern finances, so it was promptly discarded. It was also concluded that requiring stablecoins' issuers to comply only with existing legislation, namely the EMD2 and the PSD2, could not be the best option as those directives might not mitigate adequately the most significant risks to consumer protection, for example, those raised by wallet providers. However, this second alternative was still valid to some extent so, as there were doubts between enacting a specific regulation or regulating them under existing legislation, the MiCA Regulation proposal has ended up being a combination of both options. On one hand, it is a specific regulation that follows a risk-based approach trying to address vulnerabilities to financial stability posed by stablecoins, as well as the challenges in terms of consumer protection and market integrity specific to crypto-assets, while allowing for the development of different types of stablecoin business model. But also, as it is explained later on this paper, e-money tokens will be subject to EMD2

[47] Recital 9 MiCA Regulation Proposal.
[48] Transcribed in section 2 of this paper.
[49] Recital 10 MiCA Regulation Proposal.

and might even be subject to PSD2, so hopefully, there will be no regulatory arbitrage between stablecoins and e-money.

Considering the definitions of both sub-categories of crypto-assets and the functions of money «the ECB understands that the terms asset-referenced tokens and e-money tokens are defined in the proposed regulation, in whole or in part, as money substitutes»[50]. In regard to asset-referenced tokens, it seems to the ECB that the store of value function is its main one, since the definition is based primarily on the value stabilisation, whereas the definition of e-money token refers to both the medium of exchange and store of value functions. However, Recital 9 explicitly says that the aim of the asset-referenced tokens value stabilisation is often to be used both as a means of payment and as a store of value; while Recital 41 justify the prohibition of interests to «ensure that asset-referenced tokens are mainly used as a means of exchange and not as a store of value». In any case, as asset-referenced tokens are regulated under MiCA Regulation proposal it is to be seen what is the main use preferred by holders: as a means of payment or as a low risk investment medium.[51] Despite of this doubt, the point is that a broad use of these two kinds of stablecoins could have important implications on the monetary policy transmission.[52]

Articles 36 and 45 MiCA Regulation proposal state that neither issuers nor CASPs shall grant interest or any other benefit related to the length of time the asset-referenced tokens or the e-money tokens are held. In ECB's opinion, this prohibition might affect financial stability and hinder monetary policy transmission, since user's preference for these tokens instead of deposits may depend on the interest rate environment. That could potentially lead to an affection on the stability and cost of credit institutions' deposit funding and

[50] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 2. Especially in case some redemption rights are granted. The possibility to easily convert the crypto-assets into banknotes or scriptural money ensures the users' confidence of such instruments as effective and reliable substitutes for banknotes and coins (CANALEJAS, *Algunas cuestiones en torno a la propuesta de la Comisión europea sobre los mercados de criptoactivos (MiCA) (1)*, in *Revista de Derecho del Mercado de Valores*, nº 27, 2020, 10).

[51] AVGOULEAS and BLAIR (2020) rightly pointed out (before MiCA was proposed) that «Money-like instruments created with the aid of new technology have, in some cases, blurred the boundaries between money and investment».

[52] CANALEJAS, *Algunas cuestiones en torno a la propuesta de la Comisión europea sobre los mercados de criptoactivos (MiCA) (1)*, in *Revista de Derecho del Mercado de Valores*, nº 27, 2020, 6.

lending capacity[53]. Despite these macroeconomic challenges that have been pointed out, the ECB does not make any concrete suggestions. Sooner or later, some of these potential effects might be inevitable since financial markets will keep evolving, with or without institutional endorsement. Though in the short term, the specific provisions regarding the classification of asset-referenced and electronic money tokens as significant, which subject them to more stringent requirements than non-significant tokens[54], might be enough to keep the market transformation under control.

4. The applicability of the existing European payments legislation to stablecoins under MiCA Regulation proposal

This section aims to analyse in depth whether the MiCA Regulation proposal is coherent with the current European payments legislation for what the interplay between this proposal, the PSD2 and the EMD2 is studied. In the first place, the general applicability of these two Directives is briefly explained. So afterwards the links between them and the asset-referenced and e-money tokens regulation can be easily understood, hence it is possible to evaluate the consistence of the potential legal framework for electronic payments in the EU, as all these rules stand now. Since the PSD2 is about to be reviewed and the MiCA Regulation proposal can be amended until it is finally adopted, any conclusions reached may offer useful ideas for shaping a consistent regime.

4.1. General scope of PSD2 and EMD

The subject matter of the PSD2 is to regulate which entities can legally be payment services providers (hereinafter, PSP), to set rules concerning transparency and information requirements of payment services, and also the respective rights and obligations of payment service users and PSPs in relation to the provision of these services as a regular occupation or business activity.

[53] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 3.

[54] See articles 39 to 41 for significant asset-referenced tokens, articles 50 to 52 for significant electronic money tokens. For both, ZETZSCHE - ANNUNZIATA - ARNER - BUCKLEY, *The Markets in Crypto-Assets Regulation (MICA) and the EU Digital Finance Strategy, EBI Working Paper Series No. 77*, 2020, 17. Regarding significant e-money tokens MADRID, *Fichas de dinero electrónico*, cit., 7 ss.

The first point that needs to be addressed is the subjective scope set in article 1.1 PSD2. The entities allowed to provide payment services are: credit institutions, electronic money institutions, post office giro institutions which are entitled under national law to do so, payment institutions, and also the ECB, national central banks and any national, regional or local authorities when not acting in their capacity as public authorities. As it is a closed list, article 37 PSD2 forbids to any other person other than these to offer and provide payment services. But what are the payment services covered by PSD2? There is not a concept *per se* but a list. Article 4.3 PSD2 says that payment service is any business activity set out in Annex I, that lists the following: services enabling cash to be placed on a payment account, those that enable cash withdrawals from a payment account, as well as all the operations required for operating a payment account (points 1 to 3); the execution of payment transactions from or to a payment account, even if the funds are covered by a credit line, what includes the execution of direct debits, the execution of payment transactions through a payment card or a similar device and the execution of credit transfers (points 3 and 4); the issuing of payment instruments and the acquiring of payment transactions (point 5); money remittance (point 6); payment initiation services and account information services (points 7 and 8). All of these services, differing greatly from each other, are defined in article 4 PSD2. Some of them are of particular interest considering the topic of this paper.

A payment transaction is an act of placing, transferring or withdrawing funds that can be initiated either by the payer or the payee and it is independent of any underlying obligations between users (article 4, point 5). Therefore, a payment order is the actual instruction by either of the users (depending on the type of service, e.g. transfer or direct debit) to its payment service provider requesting the execution of a payment transaction (point 13). There is a number of services (all, except payment initiation services and account information services) that one way or another imply the actual transfer of funds. How the payment order is instructed, by who and the transaction's technical procedure is what differentiate each service. Although is not the intent of this paper to deepen in theory of payment services, some hints are useful.

With the exception of the money remittance service (and, of course, those services which do not imply the flow of funds), all the payment services require a payment account as defined in article 4, point 25: an account held in the name of one or more payment service users which is used for the execution of payment transactions, so the provider that maintains that account is called account servicing payment service provider. The nonnecessity of a payment account is what characterise the money remittance service as it is the one

«where funds are received from a payer, without any payment accounts being created in the name of the payer or the payee, for the sole purpose of transferring a corresponding amount to a payee or to another payment service provider acting on behalf of the payee, and/or where such funds are received on behalf of and made available to the payee». On the contrary, according to article 4, point 24, a credit transfer is the service where the payer gives the instruction to its account servicing payment service provider to credit a certain amount to a payee's payment account (which is obviously debited from the payer's payment account).

But some transfers of funds, besides a payment account (two of them, to be precise), imply the use of a payment instrument in the sense of article 4, point 14: «a personalised device(s) and/or set of procedures agreed between the payment service user and the payment service provider and used in order to initiate a payment order». So there is a need of a previous service and contract which is the issuing of payment instruments (point 45) where the PSP supplies a payment instrument to the payer to initiate payment transactions and undertakes to process them. On the other end of the payment chain, in relation with the payee, there needs to be provided another service: the acquiring of payment transactions which, in accordance to article 4, point 44, is the service where the payee's PSP commits to accept and process payment transactions, which results in a transfer of funds to the payee.

To complete this brief overview of the general objective scope, article 3 establishes some explicit exclusions related to cash money (letters a to f); cheques and paper-based drafts, vouchers, traveller's cheques and postal money orders (letter g); payment transactions carried out within a payment or securities settlement system between settlement agents, central counterparties, clearing houses and/or central banks and other participants of the system, and payment service providers (letter h); payment transactions related to securities asset servicing (letter i); payment transactions by a provider of electronic communications networks or services provided in addition to electronic communications services within quantitative limits to the exclusion (letter l); payment transactions carried out between payment service providers, their agents or branches for their own account (letter m); payment transactions and related services between a parent undertaking and its subsidiary or between subsidiaries of the same parent undertaking, without any intermediary intervention by a payment service provider other than an undertaking belonging to the same group (letter n); and very specific cash withdrawal services offered by means of ATM by providers, acting on behalf of one or more card issuers, which are not a party to the framework contract with the customer (letter o). There are two more exclusions, set out in letters j and k,

that could be important to determine whether PSD2 should be applied to some DLT networks. Although this aspect is not deeply examined in this paper, it is interesting to briefly mention them. Letter j excludes the application of PDS2 to technical services which support the provision of payment services, only if the provider does not enter into possession of the funds to be transferred. This includes: the processing and storage of data, trust and privacy protection services, data and entity authentication, the information technology and communication network provision, and finally the provision and maintenance of terminals and devices used for payment services. Letter k excludes services based on specific payment instruments that can be used only in a limited way, as long as they meet one of the conditions set out in letter k, points i. to iii. The most probable one that DLT networks could meet is the one established in number iii, this is known as the limited network exclusion, and refers to instruments that only allow the holder to acquire goods or services within a limited network of service providers under direct commercial agreement with a professional issuer.

Once it is clear what services and what providers are covered by the PSD2, it is time to discuss, even briefly, about the Directive's scope in a strict sense. In point 1 of article 2 it is stated that the PSD2 shall apply to all payment services provided within the Union. However, this general rule is specified in point 2. Provisions about transparency and contract obligations apply to payment transactions in a Member State currency provided both the payee's PSP and the payer's PSP are, or the sole PSP is, located within the Union[55]. According to point 3, most of the transparency and contractual obligation rules are applicable even if the currency of the payment transaction is not from any Member State where there is no PSP outside the Union. As for the cases where only one of the PSPs is located within the Union, irrespective of the currency used, the Directive will only apply to those parts of the payment transaction which are carried out in the Union.

Article 2 poses a vital obstacle: would any kind of crypto-asset under MiCA Regulation be considered currency in the meaning of PSD2? This is not an easy question. Even when the MiCA proposal is enacted, Member States would not have the authority to accept by themselves any crypto-asset as an official currency because that falls within the competence of the European System of Central Banks (ESCB) and ECB according to articles 127 and 282 of Treaty on the Functioning of the European Union. That being said, it is obvious that even if its acceptance is not mandatory, a crypto-asset

[55] Even though the Directive literally sets as a geographical point of reference the EU, it shall apply to the whole EEA.

voluntarily and commonly accepted as a means of payment would have the same role as a currency that is legal tender without being it. That, actually, was the purpose of the first cryptocurrency ever, Bitcoin, thought it soon became another matter. However, as it will be shown soon, rules set by the MiCA proposal may open the door to some crypto-assets to be considered currency in some way, shape or form. The key is the article 4.25 PSD2, which establishes that only banknotes and coins, scriptural money and electronic money are funds, so all the regulated payment services under PSD2 that imply a transfer of value are defined in relation with this concept of funds.

In regard to EMD2, it lays down the rules for the pursuit of the activity of issuing electronic money, and impose on Member States to only recognise certain categories of issuers, namely, same recognised as PSP under PSD2 but payment institutions (articles 1.1 and 18 EMD2). Connexions between EMD2 and PSD2 are manifest. Points 4 and 3 of article 1 EMD, set the Directive does not apply to services under article 3.k and l PSD2. The definition set out in article 2.2 EMD2[56] reveals essential e-money characteristics which define its legal nature, that are elaborated a few provisions later.

Firstly, it is a monetary value. Secondly, it is stored electronically, although it does not grant interest or any other similar benefit in accordance to article 12, and also the EMD2 does not apply neither to monetary value stored on specific pre-paid instruments, designed to address precise needs that can be used only in a limited way (recital 5, referred to article 3.k PSD2), nor to monetary value that is used to purchase digital goods or services, where, by virtue of the nature of the good or service, the operator adds intrinsic value to it (recital 6, referred to article 3.l PSD2). Thirdly, it is issued on receipt of funds and at par value by virtue of article 11.1 EMD. Fourthly, it represents a claim on the issuer, as a consequence, the electronic money holder has a right to redemption which, according to article 11.2 EMD, needs to be at par value and exercisable at any moment. Lastly, its purpose is to be used as means of payment so it needs to be accepted by a person other than the issuer, as it falls within the scope of the PSD2 definition of funds it has the same legal value as cash Euro.

4.2. PSD2 and EMD applicability to asset-referenced tokens

To analyse if asset-referenced tokens are covered under PSD2 it shall be distinguished between its issuance and the operations related to those assets

[56] Transcribed in section 2 of this paper.

in trying to elucidate if there is an analogy between the crypto-assets services regulated under MiCA Proposal and the payment services set out in PSD2. The analysis takes into consideration the subjective element of PSD2 scope, in regard to the subject who issues or provides any crypto-asset service, and the objective one, regarding the services themselves.

According to article 15 MiCA Regulation proposal the issuing of asset-referenced tokens is not restricted to certain types of business but the offer itself needs to be authorised by the competent authority of the issuer home Member State and the issuer should be a legal entity. To fulfil the subjective requirement on PSD2, the issuer must be one of the entities listed in article 1.1 PSD2, notably, credit institutions, payment institutions or electronic money institutions. It should be noted that in case the issuer of asset-referenced tokens is a credit institution it does not need to seek for authorisation, even though the obligation of drafting a white paper remains, and it must be approved.[57]

From an objective point of view, the marry up between PSD2 and MiCA proposal is not that easy. Notwithstanding the fact that it is well known crypto-assets are not currency, the doubts about their juridical nature pose a blatant defiance. As people understand stablecoins it is obvious that there must be some similarities between currency and asset-referenced tokens. When the latter are meant to be used as means of payment its economic function is quite the same than a banknote's. Actually, trying to draw a parallel between any kind of 'crypto-asset transfer' and a transfer covered by PSD2, anyone would probably think of a credit transfer: person A has a payment account in Bank 1 (or a crypto-wallet managed by CASP1) with certain amount of funds, and wants to transfer a part of those funds to person B, who also has a payment account provided by Bank 2 (or a wallet managed by CASP2). Tough this sort of equivalence can only be established whenever it is about a closed DLT network where holders cannot act by themselves, which considering the evolution of the market and the future legislative prospect, seems like the most imminent and probable scenario[58]. If there is no agreement on considering the

[57] As KÖNIG pointed out, there is an incoherence between Recital 28 and the exemption in Article 2.4. The former explicitly mentions the requirement also for credit institutions to produce a white paper, whilst the latter refers to the non-applicability of Title III, Chapter 1 to credit institutions, in which the white paper is regulated. It is probably an editorial mistake that is to be cured in the final version of the Regulation. KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets,* cit., 62.

[58] On the issue why cryptocurrencies based on open DLT networks, such as Bitcoin, are probably not going to replace the traditional monetary system, see: CASTILLO, *Distributed*

wallet as a payment account,[59] then it would not be a credit transfer but a money remittance.

However, this hypothesis clearly equates the asset-referenced token to the concept of funds what, given the wording of the articles, is incorrect. Asset-referenced tokens are not included in the definition of funds set out in article 4.25 PSD2, as they are neither banknotes or coins, nor scriptural money, nor electronic money. Although the latter could be argued, there is a general consensus that there is no such identity. Out of the requirements established by EMD2, the most problematic has to be the one set out in article 11.1: «Member States shall ensure that electronic money issuers issue electronic money at par value on the receipt of funds». Beyond that, there is little homogeneity among the different asset-referenced tokens, some of them may grant their holders redemption rights or claims on the reserve assets or on the issuer while others do not offer those rights or restrain them to specific holders or to quantity limits[60]. Hence it can be said that issuers will have a certain margin of discretion for the individual structure of the rights of holders.[61] In any case, it is an obligation for the issuer to provide holders of asset-referenced tokens with clear, fair and not misleading information about the offer of a direct claim or redemption right on the reserve asset, therefore the white paper needs to contain a clear and unambiguous warning in this respect in case those rights are not granted (article 17.1 MiCA Regulation proposal). At any rate, asset-referenced tokens fall outside the scope of EMD which cannot be apply as its subject matter is to set out the rules for the issuance of electronic money.

Since asset-referenced tokens are not funds, the only possible way to make them fall within the standing scope of PSD2 is to consider them as a payment instrument. It would be fair to say that, in view of the definition set out in point 14 of article 4 PSD2, this might well be conceivable: asset-referenced tokens as a set of procedures agreed between the holder and the CASP used in order to initiate a payment order which will be executed through a DLT[62]. However,

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ledger technology en el Mercado de pagos: más allá de las criptomonedas, in *Revista de Derecho del Mercado de Valores*, nº 27, 2020.

[59] It has been said that a wallet does not really keep the tokens but just the means to access them, such as private cryptographic keys, though the public cryptographic key has been compared to the IBAN. See PASTOR, *Fichas con referencias a activos (Stablecoin)*, in MADRID (ed.) *Guía de criptoactivos MiCA*, Cizur Menor, 2021, 11.

[60] Recital 40.

[61] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 36.

[62] Actually, for oversighting purposes digital tokens are deemed payment instruments, as it is explained in the subheading 4.2.

as it has been said before, such an interpretation can be easily called into question since the asset-referenced token is also intended to serve as a unit of account. Just in case this exegesis is accepted could the issuing of asset-referenced tokens be qualified as a regulated payment service under PSD2, namely, the issuing of a payment instrument. Nevertheless, if it is to be achieved a comprehensive regime that subject the issuance of asset-referenced tokens to payments legislation, it would probably be better to amend PSD2 in order to include the issuing of those tokens as a payment service or, even better, to establish specific rules on crypto-assets and their use as a means of payment. In this sense, BCE's opinion on the MiCA Regulation proposal notes that both asset-referenced and e-money tokens would *de facto* equate to payment instruments, and suggests that, if this were to be the case, the only way to avoid the potential regulatory arbitrage between their regimes is to subject both kinds of tokens to similar requirements. Regarding asset-referenced tokens, BCE considers appropriate «at a minimum, to require issuers to grant redemption rights to the holders of asset-referenced tokens either on the issuer or the reserve assets»[63]. Going even further, it is also proposed to create a specific category of «payment tokens» whose regulation would subject asset-referenced tokens to the stricter e-money tokens issuance regime. It remains to be seen whether BCE's suggestions are accepted or not and, in case they are, to what extent.

With regard to the crypto-assets services that could consist in a transfer of value aiming to make a payment, the most suitable one of the stipulated in article 3.9 MiCA Regulation proposal is the execution of orders for crypto-assets on behalf of third parties. Whilst this may be thought as a 'transfer of asset-referenced tokens' in the sense exemplified before, that is to say, as a payment denominated not in Euros but in those tokens, the literacy of the service definition set out in article 3.14 does not really fit together with the concept of transfer established in PSD2, neither with the credit transfer service nor the money remittance one. This is because, according to the definition set out in article 3.14 MiCA, that service consists in concluding agreements to buy or sell crypto-assets, what is significantly closer to the definition of the 'execution of orders on behalf of clients' established in article 4, point 5 of Directive 2014/65/EU of the European Parliament and of the Council, of 15 May 2014, on markets in financial instruments and amending Directive

[63] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 3.

(hereinafter, MiFID II)[64]. Strictly speaking, if a certain number of asset-referenced tokens, instead of money, is transferred in exchange for any good or service, it is not a payment but a barter.[65] So, it would not be covered neither by MiCA Regulation proposal, nor by PSD2. This may well be the legislator's intention, although it is not really consistent with the insistence about the use of such type of crypto-assets as a means of payment throughout the recitals and, neither is it coherent with the provisions on significant tokens.

A broader interpretation would be to consider that the exchange of goods or services and asset-referenced tokens meets the definition of 'execution of orders for crypto-assets on behalf of third parties', in the sense that those tokens are 'bought' or 'sold' in exchange for a good o service. That would fix the applicability of the MiCA proposal. However, it would not do so in relation to PSD2. There is no way to maintain that this would be a credit transfer or a money remittance, as asset-referenced tokens are not funds. That is because a credit transfer is «a payment service for crediting a payee's payment account with a payment transaction…», and a payment transaction is «an act, initiated by the payer or on his behalf or by the payee, of placing, transferring or withdrawing funds», for its part, money remittance is «a payment service where funds are received from a payer…»[66]. So, it is necessary to get back to the previous hypothesis of asset-referenced tokens as a payment instrument. In this scenario, the argument would be that there is an identity between a payment by card (or any other payment instrument) and a payment by asset-referenced tokens, although it is difficult to follow considering the definition of payment transaction, no matter how, necessarily involves funds.

There is also a considerable inconsistence between MiCA Regulation Proposal and PSD2 regarding the subjective element. Recital 58 of the MiCA

[64] «'Execution of orders on behalf of clients' means acting to conclude agreements to buy or sell one or more financial instruments on behalf of clients and includes the conclusion of agreements to sell financial instruments issued by an investment firm or a credit institution at the moment of their issuance». Actually, the whole list of crypto-asset services is inspired by MiFID II, to say the least. Academics have rightly pointed it out, see KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets,* cit., 95, 118. AHERN, *Regulatory Lag, Regulatory Friction and Regulatory Transition as FinTech Disenablers: Calibrating an EU Response to the Regulatory Sandbox Phenomenon,* in *European Business Organization Law Review No. 22,* 2021, 402. TAPIA, *Desafíos en la regulación y supervisión de los criptoactivos en la Unión Europea y en España (1),* in *Revista de Derecho del Mercado de Valores No. 28*, 2021, 8.

[65] In regards to the difference between a means of payment and a means of exchange and how in a barter there is no legal payment see MADRID, *Fichas de dinero electrónico,* cit., 2.

[66] Article 4 PSD2, points 24, 5 and 22, respectively.

Regulation proposal states that CASPs should be authorised as payment institutions to be allowed to make payment transactions in connection with the crypto-asset services they offer. In line with that statement, article 63.4 says as follows: «Crypto-asset service providers may themselves, or through a third party, provide payment services related to the crypto-asset service they offer, provided that the crypto-asset service provider itself, or the third-party, is a payment institution as defined in Article 4, point (4), of Directive (EU) 2015/2366».

First issue is what does it mean to provide payment services related to the crypto-asset service CASPs offer. Is it referring to the transactions denominated in crypto-assets and ordered in exchange for any good or service? Or, instead, is it referring to the payment of the actual crypto-asset services or to the payments ordered to one holder to another resulting from the providing of certain types of crypto-asset services?[67] To my mind, the answer to these questions should be that it is referred to all transactions denominated in crypto-assets. That would be the logical explanation considering that both the memorandum and the recitals insist on the forecast and concerns related to the use of crypto-assets as a means of payment, in particular, asset-referenced tokens and electronic money tokens. And that, irrespectively of what good or service is to be paid[68]. However, as recital 58 explicitly talks about payment transactions, which according to PSD2 imply the placing, transferring or withdrawing of funds, perhaps article 63.4 MiCA should be interpreted in reference to the payment of the crypto-asset services and, particularly, with regard to those payments that will be necessary to implement the agreements concluded in the providing of crypto-asset services. At any rate, this is not the only conundrum. It is also confusing that point 4 further

[67] Namely, either the execution of orders for crypto-assets on behalf of third parties or the reception and transmission of orders for crypto-assets on behalf of third parties. These two are the only crypto-asset services which, in principle, will involve a payment between the holder and another subject different from de CASP. Although, strictly speaking, as far as payment services are concern when providing the service of the reception and transmission of orders for crypto-assets on behalf of third parties, the CASP will only initiate the payment but not actually execute them. Payment initiation services are regulated under PSD2, and defined in article 4.15 as those services that enable to initiate a payment order at the request of the payment service user with respect to a payment account held at another payment service provider. The characteristic feature is that the payment initiation service provider is never in possession of user's funds. Its task is only to transmit the payment order from the user to the account servicing PSP and, once the availability of funds is confirmed, let the payee known that the payment has been initiated and that enough funds are available.

[68] It could be the payment for a crypto-asset service or for the purchase of crypto-assets, but it could also be the payment for a tangible good such as a pizza (as it was the very first transaction with bitcoins) or an off-chain service, for example, a taxi ride.

restricts the entities that can provide payment services in comparison with article 1.1 PSD2. Apparently credit institutions and electronic money institutions are not allowed to provide payment services in relation to the crypto-asset services that these types of financial institutions can actually offer in the market. Besides, Article 63 regulates the safekeeping of clients' crypto-assets and funds, so, apart from PSD2 regulating the safekeeping of client's funds too, it is not easily understandable why the provision set out in point 4 is included in this article.

This complex[69] and quite forced interplay between PSD2 and the rules on asset-referenced tokens does nothing but demonstrate that there is very little consistency between both pieces of legislation.

4.3. PSD2 and EMD applicability to electronic money tokens

The first point that should be noticed is that electronic money tokens are apparently equated with electronic money. The detailed explanation of the specific provisions of the proposal says that «Article 43 also states that 'e-money tokens' are deemed electronic money for the purpose of Directive 2009/110/EC». This quite illustrates the will of the legislative authority which is not entirely clear from the wording of last paragraph of article 43.1. It says as follows: «[f]or the purpose of point (a), an 'electronic money institution' as defined in Article 2(1) of Directive 2009/110/EC shall be authorised to issue 'e-money tokens' and e-money tokens shall be deemed to be 'electronic money' as defined in Article 2(2) of Directive 2009/110/EC». Point (a) requires that the issuer of electronic money tokens «is authorised as a credit institution or as an 'electronic money institution' within the meaning of Article 2(1) of Directive 2009/110/EC». To be fair, if that paragraph is literally interpreted it seems like only whenever the e-money tokens have been issued by an electronic money institution are they deemed electronic money, which would make little sense. Since both types of institutions are allowed to issue those tokens, deem them electronic money in one case but not the other would create an inexplicable difference without justification. Besides, this equivalence has deeper consequences.[70] If electronic money tokens are electronic money in the sense of article 2.1 EMD2, they are also funds in the sense of article 4.25 PDS2.

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[69] TOKEN ALLIANCE, *Legal Landscapes Governing Digital Tokens in the European Union*, cit., 30.

[70] MADRID is the opinion that e-money tokens are in fact a specific type of electronic money. See MADRID, *Fichas de dinero electrónico,* cit., 3, 9.

As just mentioned above, the issuance of electronic money tokens is an activity restricted to electronic money institutions and credit institutions by virtue of article 43.1.a) MiCA Regulation proposal, which are the same private entities that can issue electronic money according to article 1.1 EMD2. This, added to the fact that this kind of tokens are deemed electronic money determines the undoubtedly application of EMD2 to their issuance, unless a *lex specialis* exists within the MiCA in order to mitigate the specific risks crypto-assets pose to consumer protection and market integrity.[71] The main speciality is that while the general regime for the issuance of e-money relies on the contract between the issuer and the user as the basis for their legal relationship and with effects on possible third parties, the specific regime for e-money tokens envisaged by the MiCA Proposals hinges on the drafting of a white paper, an information document setting out the rights, content and terms of the tokens, on the basis of which the competent authority exercises its supervisory and control functions.[72]

On the other hand, since electronic money tokens are supposed to serve as a means of payment by definition in accordance with article 4.4 MiCA Regulation proposal and Recital 9, it might seem obvious that PSD2 should be applicable in relation to this kind of crypto-asset, but it may not be as straightforward.

Despite the fact that the issuing of electronic money is only possible by entities that also can provide payment services according to article 1.1 PSD2, this activity is not a regulated payment service. Considering it is covered under EMD2 it might not be a major problem, though the challenges in terms of consumer protection and the specialities that could differentiate this kind of crypto-asset from actual electronic money in the market, make desirable that the issuance of e-money tokens would also fall within the PSD2 scope. As for now, the only way to subject this activity to PSD2 is by analogy of article 4.45 which defines the issuing of payment instruments. This could be argued since e-money token are funds, but it could be seen as prepaid electronic money cards where the limits between the issuance of the funds and the issuance of the instrument are blurred. This is because e-money products can be hardware-based or software-based, depending on the technology used to store the monetary value[73].

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[71] KÖNIG, *The Future of Crypto-Assets within the European Union – An Analysis of the European Commission's Proposal for a Regulation on Markets in Crypto-Assets*, cit., 78, 82.

[72] MADRID, *Fichas de dinero electrónico*, cit., 3.

[73] TOKEN ALLIANCE, *Legal Landscapes Governing Digital Tokens in the European Union*, cit., 9.

Nevertheless, it is foreseeable that the issuing of electronic money would soon be included in Annex I of PSD2 as a regulated payment service. The Retail Payments for the EU Strategy states that the authorisation and supervision regimes set out in PSD2 and EMD2 have ended up converging but remain separate without any apparent justification, considering there is no longer much difference between the services provided by payment institutions and e-money institutions[74]. As a consequence thereof, the inclusion of the issuance of e-money as a payment service in PSD2 is established as a key action[75]. So whenever MiCA Regulation proposal (as long as there are no major changes) and this PSD2 amendment are enacted, there will be no doubt about the issuance of electronic money tokens falling within the scope of PSD2.

At this point, it is time to address the connexions between the crypto-asset services provided in relation to electronic money tokens covered by MiCA Regulation proposal and the payment services under PSD2. Given that electronic money tokens are funds, the objective element does not pose any problem from PSD2 perspective. That is because a transfer of value executed in e-money tokens through a DLT network will meet the definition either of credit transfer or money remittance, depending on whether the wallet where the tokens are kept is considered a payment account or not. Even so, article 63.4 MiCA Regulation proposal should be recalled, as well as the dilemma that its understanding suggests. Based on the interpretation of this article that was accepted, it could be possible that, instead of all PSPs recognised by article 1.1 PSD2, only payment institution would be allowed to provide payment services in electronic money tokens which would make no sense.

Regarding activities under MiCA Regulation proposal and following the idea expressed in the previous section, none of the crypto-asset services set out in article 3.9 MiCA share obvious features with the regulated payment services, though in a broad interpretation, the execution of orders for crypto-assets on behalf of third parties might be analogous to a credit transfer or a money remittance, and the reception and transmission of orders for crypto-assets on behalf of third parties could be understood as a similar service to payment initiation[76]. Supposing this extensive interpretation is not accepted,

[74] COM/2020/592 final, 19. This amendment is part of the PSD2 review, and is the only one that has been already specified.

[75] COM/2020/592 final, 21.

[76] Payment initiation services are regulated under PSD2, and defined in article 4.15 as those services that enable to initiate a payment order at the request of the payment service user with respect to a payment account held at another payment service provider. The characteristic feature is that the payment initiation service provider is never in possession of user's funds. Its task is only to transmit the payment order from the user to the account servicing PSP and, once

no crypto-asset service would fall within the scope of PSD2. This could lead to a major paradox: a single transaction will, on one side, fall under the scope of PSD2 and, on the other side, will be partly covered by MiCA Regulation proposal, but not completely.

To begin, electronic money tokens are intended as a means of exchange by definition, they are «electronic surrogates for coins and banknotes and are used for making payments»[77]. It is even arguable why should this kind of crypto-asset be admitted to trading on a trading platform as article 43.1 seems to allow, since that could potentially affect their market value, which will differ from their nominal value, and hence their use for making payments, posing a serious risk to financial stability. It would pervert the purpose of those tokens. Furthermore, electronic money tokens are funds, so there should be no doubt that PSD2 covers payment transactions denominated in these tokens what, among other things, implies that those services can only be provided by certain types of entities as established in article 1.1 PSD2.

In the second place, and this is an essential factor, as electronic money tokens only really exist and can be managed in a DLT network (assuming it would be a closed network where holders cannot fully act by themselves), necessarily there need to be professional service providers which can legally and materially act in that network. At the very least, there has to be an entity that custodies and administrates the holder's crypto-assets[78]. For that, they are required to be granted an authorisation as CASP in accordance to Article 53 MiCA Regulation proposal. CASP's are defined as «any person whose occupation or business is the provision of one or more crypto-asset services to third parties on a professional basis» being crypto-asset services only the ones set out in Article 3.9 MiCA Regulation proposal.

Moreover, and here comes the core of the paradox, services under PSD2 are not regulated under MiCA Regulation proposal and *vice versa* so there are two options. Either the CASP is also authorised as a PSP or there would need to be two entities involved: a CASP and a PSP. But not any type of PSP, apparently it could only be a payment institution, by virtue of article 63.4 MiCA Regulation proposal. The former option would enable the provision of

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the availability of funds is confirmed, let the payee known that the payment has been initiated and that enough funds are available.

[77] Recital 9

[78] That is to say, the service set out in article 3.9 MiCA Regulation proposal: «the custody and administration of crypto-assets on behalf of third parties», and defined in point 10 as the «safekeeping or controlling, on behalf of third parties, crypto-assets or the means of access to such crypto-assets, where applicable in the form of private cryptographic keys».

crypto-asset services, as well as the provision of payment services by the same entity,[79] but would also require a high effort to comply with multiple regulations (which, to be fair, is quite common on financial markets) and will significantly increase compliance costs, especially at first until the combined regime is clarified. That being said, and leaving aside the incoherence of Article 63, it is foreseeable that many credit institutions would also provide crypto-asset services, without the need to seek authorisation according to Article 2(5) MiCA Regulation Proposal. Likewise, it is probable that many Electronic Money Institutions apply for authorisation as CASPs to seize emerging business opportunities. The latter option, however, could be more challenging. Although it would probably promote a market opening, it is against the recent trend of disintermediation of financial markets and could rise costs for users. Also, specific regulatory gaps in regards to users' protection and providers' liability, especially in case of defective execution, might arise. Furthermore, it will imply the need for interoperability of networks and communications used by CASPs and PSPs[80].

One way or the other, the complexity of this legal framework is significant.[81] In both cases, from the user/holder perspective, comprehensibility of the contractual relation could be quite complicated. This could pose important challenges, especially to consumer protection, in particular regarding transparency and information requirements, rights and obligations and liability. Moreover, PSD2 provides the possibility for Members States to apply the protective regime designed to ensure consumer protection also to microenterprises[82], which is not an option under MiCA Regulation proposal.

Finally, and also paradoxically, unless the MiCA Regulation proposal is clarified, the issuance of electronic money tokens will be covered by the PSD2 (whenever it is revised), but the rest of the services related to them will not.

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[79] It has been said that new CASPs could be more efficient PSPs than traditional commercial banks PASTOR, *Fichas con referencias a activos (Stablecoin)*, cit., 3.

[80] With a wider scope, the problem of the interoperability has been pointed out by PASTOR, *La digitalización del dinero y los pagos en la economía de mercado digital pos-COVID*, cit., 320. Also in regards to asset-referenced tokens PASTOR, *Fichas con referencias a activos (Stablecoin)*, cit., 3.

[81] LARA, *Criptomonedas ¿Riesgos o ventajas?*, cit., 10. TOKEN ALLIANCE, *Legal Landscapes Governing Digital Tokens in the European Union*, cit., 30.

[82] As defined in article 4.36 PSD2: «an enterprise, which at the time of conclusion of the payment service contract, is an enterprise as defined in Article 1 and Article 2(1) and (3) of the Annex to Recommendation 2003/361/EC».

Noteworthy is the fact that article 56.2.b MiCA Regulation proposal, in respect of the withdrawal of authorisations, sets out the competent authorities' power to withdraw the CASP authorisation in case it «has lost its authorisation as a payment institution in accordance with Article 13 of Directive (EU) 2015/2366 or its authorisation as an electronic money institution granted in accordance with Title II of Directive 2009/110/EC and that crypto-asset service provider has failed to remedy the situation within 40 calendar days». This provision is quite surprising given that having an authorisation as payment institution or electronic money institution is not a requirement for the providing of any crypto-asset service. It is curious, too, that losing the authorisation as a credit institution does not open up the possibility of withdrawing the CASP's licence. Anyhow, this provision should not be applied automatically, because the affection to the providing of crypto-asset services caused by the losing of a payment institution or electronic money institution authorisation will depend on the business model. And solely in case some crypto-asset services are, at the same time, payment services. That is because no other authorisation but the CASP one is required to provide crypto-asset services. Only in reference to the issuance (which is not a service) of electronic money tokens is it required to be either an electronic money institution or a credit institution. But for issuing crypto-assets, a CASP authorisation is not needed. This could lead to the conclusion that article 56.2.b MiCA Regulation proposal must be read along with article 63.4, despite the obvious incoherence of not including electronic money institution in article 63.4 and credit institutions in either of them. And this suggests that, despite the confusing wording, the spirit of the proposal is that the providing of crypto-asset services and the providing payment services in crypto-assets (either electronic money tokens or asset-referenced tokens) come together.

4.4. Asset-referenced and e-money token arrangements as tantamount to that of a «payment system»

As it has been previously noted, academics have already drawn a parallel between the functioning of a cryptocurrency DLT network and payment systems[83]. The ECB has also drawn attention to the fact that «asset-referenced and e-money token arrangements may qualify as tantamount to that of a

[83] CATTELAN - GIMIGLIANO, *Digital currency schemes: more or less sustainable? Limits to growth and electronification of money in Europe*, cit., 34. DIDENKO - ZETZSCHE - ARNER - BUCKLEY, *after libra, digital yuan and covid-19: central bank digital currencies and the new world of money and payment systems, EBI Working Paper Series No. 65*, 2020, 49

'payment system' where they have all the typical elements of a payment system»[84] but, for now, only for the purposes of Eurosystem oversight.[85]

Roughly speaking, payment systems are formal arrangements between several participants that establish rules and standards for the execution of value transfers between them[86]. Some of them, known as Systematically Important Payment Systems (SISP), are regulated by Directive 98/26/EC of the European Parliament and of the Council, of 19 May 1998, on settlement finality in payment and securities settlement systems. However, not every payment system from an economic perspective is a SISP, hence not all of them are subject to Directive 98/26/CE, as it establishes strict requirements for qualifying payment systems. Besides, a SISP activity is supposed to be the clearing and settling euro-denominated payments, so that regulation might not apply to stablecoin arrangements that handle payments denominated in another unit of account.[87] Anyhow, the ECB arguments its opinion based on Article 2(i) of this Directive, which establishes that «any instruction which results in the assumption or discharge of a payment obligation as defined by the rules of the system» qualifies as a «transfer order». So, despite the definition of payments system set out in article 4.7 PSD2 which uses the term

[84] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 5. Those elements are the following: «(a) a formal arrangement; (b) at least three direct participants (not counting possible settlement banks, central counterparties, clearing houses or indirect participants); (c) processes and procedures, under the system rules, common for all categories of participants; (d) the execution of transfer orders takes place within the system and includes initiating settlement and/or discharging an obligation (e.g. netting) and the execution of transfer orders, therefore, has a legal effect on the participants' obligations; and (e) transfer orders are executed between the participants». Also, ECB CRYPTO-ASSETS TASK FORCE, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit. 9.

[85] The Statute of the ESCB provide for the Eurosystem to conduct oversight of clearing and payment systems as part of its mandate.

[86] This is not a legal definition as could be the ones set out in article 4.7 PSD2; article 2.1(a) Directive 98/26/EC, or article 2.1) of Regulation (EU) No 795/2014 of the European Central Bank of 3 July 2014 on oversight requirements for systemically important payment systems (ECB/2014/28). These definitions are specifically designed for the application of such rules. The one set out in PSD2 is the most general, whereas the other two refer specifically to designated payment systems and systematically important payment systems, respectively.

[87] ECB CRYPTO-ASSETS TASK FORCE, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit. 25. Nevertheless, the Financial Stability board is the opinion that stablecoin arrangements can actually perform systemically important payment system functions or other financial market infrastructure (FMI) functions that are systemically important. FINANCIAL STABILITY BOARD. *Addressing the regulatory, supervisory and oversight challenges raised by "global stablecoin" arrangements (consultative document)*, cit., 17.

«transfer of funds», the ECB is of the opinion that, for oversighting purposes, «to the extent that asset-referenced and e-money token arrangements qualify as 'payment systems', the Eurosystem payment system oversight framework […] would apply to them».[88]

Accordingly, the Eurosystem oversight framework for electronic payment instruments, schemes and arrangements (PISA framework) deem digital payment tokens as payment instruments[89], which are included within the oversighting scope. Under that framework, payment instruments are defined as personalised devices «and/or set of procedures agreed between the payment service user and the payment service provider used to initiate a transfer of value»[90]. «Transfer of value» is likewise a broader concept than «transfer of funds». The former is defined as «[t]he act, initiated by the payer or on the payer's behalf or by the payee, of transferring funds or digital payment tokens, or placing or withdrawing cash on/from a user account, irrespective of any underlying obligations between the payer and the payee. The transfer can involve a single or multiple payment service providers»[91]. Similarly, ECB states that «asset-referenced and e-money token arrangements that set standardised and common rules for the execution of payment transactions between end users could qualify as a 'payment scheme'»[92], what might also

[88] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 6. The ECB CRYPTO-ASSETS TASK FORCE is of the same opinion: «the Eurosystem oversight policy framework is not limited to systems that clear and settle euro-denominated payments. The Eurosystem would still be in a position to apply the PFMI, or a subset thereof, to a non-euro-denominated system that is located in the euro area even though the system is not subject to the SIPS regulation» ECB CRYPTO-ASSETS TASK FORCE, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit. 25.

[89] EUROPEAN CENTRAL BANK, *Eurosystem oversight framework for electronic payment instruments, schemes and arrangements*, 3. Available at: https://www.ecb.europa.eu/paym/pol/html/index.en.html «A digital payment token is a digital representation of value backed by claims or assets recorded elsewhere and enabling the transfer of value between end users. Depending on the underlying design, digital payment tokens can foresee a transfer of value without necessarily involving a central third party and/or using payment accounts» (cit.,13).

[90] EUROPEAN CENTRAL BANK, *Eurosystem oversight framework for electronic payment instruments, schemes and arrangements*, 14.

[91] EUROPEAN CENTRAL BANK, *Eurosystem oversight framework for electronic payment instruments, schemes and arrangements*, 14. There are concerns about stablecoin arrangements that are not properly managed can be a source of large-scale disruption and even systemic risk (ECB CRYPTO-ASSETS TASK FORCE, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit. 23.)

[92] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 6. ECB CRYPTO-ASSETS TASK FORCE said that although

imply the applicability of the PISA framework to the CASP responsible for the scheme.

So irrespectively of asset-referenced and electronic money tokens falling in or outside PSD2 scope, according to ECB's opinion on the MiCA Regulation Proposal, they should subject to the Eurosystem oversight.

Notwithstanding the above, the incoherence between payment services legislation and payment systems rules should be sorted out, since it could potentially be a major source of legal uncertainty. At least, it would be desirable to align their definitions, though it might be worth it to deeply review payment systems legislation[93], which is outdated and rather limited, considering how technological innovation is affecting not only payment services, but also payment systems. Be that as it may, this section only intends to bring the connexion between payment systems and stablecoins under the MiCA Regulation proposal to the table, yet it need to be object of further research.

5. Concluding remarks

Overall, the MiCA Regulation proposal is an ambitious and wide regulation that aims to provide a legal framework for a subject-matter which is too broad and still emerging. It is indeed very difficult to predict how many crypto-asset applications and uses are about to arise. However, in its current terms, this Regulation would probably fall short, even to what is already known.

It makes little sense to regulate specific kinds of crypto-assets foreseeing that they are meant to be used as a means of payment, but then do not ensure the coherence of their complete framework. The spirit of the proposal is much closer to MiFID II than to PSD2 and, even though it is absolutely necessary to provide a legal framework for the investments on crypto-assets, it is likewise important to establish a modern, coherent and comprehensive electronic payments regime. Despite the fact that connexions between the

stablecoin arrangements as payment schemes «do not give rise to systemic risk concerns, their orderly functioning facilitates secure and effective payment instruments that meet users' needs and are critical for maintaining public trust in the euro» ECB CRYPTO-ASSETS TASK FORCE, *Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area*, cit., 23.

[93] This is meant in a broad sense, beyond the particular revision of Directive 98/26/EC, that actually begun in February 2021, with a public consultation that closed in early May (https://ec.europa.eu/info/consultations/finance-2021-settlement-finality-review_en).

MiCA Regulation proposal and the existing payments European regulation seem glaring, there is a noticeable lack of coherence between the proposal, as it stands now, and the PSD2. The ECB has pointed out that need for clarification on the interplay between these two pieces of legislation, which would also be desirable to refer explicitly in the text[94]. Consistence with the EMD2 is acceptable, yet some aspects would benefit from further clarification, namely the wording of article 43 MiCA Regulation proposal.

Regarding the issuance of asset-referenced tokens and electronic money tokens the inconsistence might not be that serious, as it is a very specific activity that hence require special rules that are properly established in the MiCA Regulation proposal. Nevertheless, when considering to include the issuance of electronic money as a payment service in the reviewing process of PSD2, it might be a good idea to contemplate the inclusion of the issuance of this kind of tokens too.

It may also be appropriate to clarify what is exactly a trading platform for crypto-assets and, as the case may be, to reassess the possibility or the conditions in which electronic money tokens and asset-referenced tokens could be traded in a trading platform, so it is somehow guaranteed that their nominal value and their market value do not differ (at least, for e-money tokens). Otherwise, they would not be able to serve as a means of payment any better than any other good or right.

On the other hand, the most urgent need regards to crypto-asset services and their subjective element. It is necessary to align or coordinate the services regulated under MiCA Regulation proposal (which are just MiFID II equivalents for crypto-assets) with those set in PSD2. Considering the PSD2 review is in progress at a very early stage, the opportunity to harmonize both regimes must be seized. A straightforward option could be to include as a payment service the provision of services consisting of value transfers denominated in asset-referenced and e-money tokens in exchange for good and services, and/or to allow CASPs to provide payment services denominated in these tokens. Even so, taking into account some of the ECB's suggestions regarding the creation of a sub-category of «payment tokens», the MiCA framework for stablecoins might still be considerably modified. Therefore, beyond any specific suggestion, the crucial thing is that the MiCA Regulation and the PSD3 (or any other payments law that could be adopted) are designed as supplementary laws.

[94] EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 6.

Furthermore, and even more importantly, it is essential to clarify the subjective interplay between the rules set out in the MiCA Regulation proposal and the regime under PSD2. Mainly but not solely the meaning of articles 56.2.b and 63.4 MiCA Regulation. In this respect, the ECB has also drawn attention to the extensive casuistry of the potential interplay between these two regulations[95] and its potential effects, that should be determined. This becomes of more significance in business-to-consumer contractual relations, when ensuring consumer protection.

Finally, it cannot be lost from sight the clear relation among DLT networks where crypto-assets are issued and transferred as a means of payment and the traditional payment systems. Further definition of this connexion would be advisable.

In conclusion, if it is to be achieved a comprehensive, coherent and univocal legal framework for payments in the EU, in the pursuit of competitive and innovative payments market, the MiCA Regulation proposal needs to elaborate on its interplay with all the existing payments legislation. Namely with the PSD2, that should also be modernised to foresee the new payment solutions that are breaking into the market while ensuring consumer protection, market integrity and financial stability.

[95] The ECB gives an example that perfectly illustrates the inconsistence between MiCA Regulation proposal and PSD2: «[a]n example of the potential interplay between the proposed regulation and the PSD2 would be where a service provider is contracting with a payee to accept crypto-assets other than e-money tokens. In such a case it would need to be clarified whether such providers would need to meet the same requirements on consumer protection, security and operational resilience as regulated payment service providers. Ultimately, it would need to be clarified whether such activities can be tantamount to the 'acquiring of payment transactions', as defined under PSD2». EUROPEAN CENTRAL BANK, *Opinion of 19 February 2021 on proposal for a regulation on Markets in Crypto-assets*, cit., 6.

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