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Recent Legal Developments in the Area of Crypto-Assets and a Digital Euro

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Recent legal developments in the area of crypto-assets and a digital euro

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Abstract (200 words)
The first part of the paper looks at Article 128 (1) TFEU as a potential legal basis for the issuance of a digital euro. In the view expressed here, Article 128 (1) TFEU does not constitute a sufficient legal basis for the Eurosystem to issue a digital euro, as a digital euro would constitute a new phenomenon, an aliud, vis-à-vis a banknote. Other undisputed legal bases are not available. The TFEU would therefore need to be amended in order to create a robust, undisputed legal basis. If – in the absence of a political will to amend the Treaties – the Eurosystem nevertheless uses Article 128 (1) TFEU as a legal basis to introduce a digital euro, the functions of such digital euro would need to be limited to those of banknotes, in particular: no monetary policy objective, not account-based, transferable peer-to-peer. The second part of the article looks at the European Commission’s draft regulation on markets in crypto-assets (MiCA) designed to provide a regulatory framework for emerging digital assets. After examining the aims of the proposal as well as its key aspects, the article provides an overview of recent developments in the ongoing discussion. A particular focus is placed on the rules applying to issuers of asset-referenced tokens (ARTs) and electronic money tokens (EMTs).

Keywords: 4-6
Central bank digital currency, Digital euro, Legal basis, Crypto-assets, Regulation, MiCA

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Part I – Article 128 (1) TFEU as potential legal basis for the issuance of a digital euro?¹

Introduction
As a majority of central banks all over the world discusses central bank digital currencies, this part intends to shed a light on the potential legal basis for the issuance of a digital euro by the Eurosystem.

1. Starting point assumption: A retail digital euro with legal tender status

¹ The opinions discussed in this paper represent the authors’ personal opinions and do not necessarily reflect the views of the Deutsche Bundesbank or its staff. – The authors wish to thank their colleague Torsten Schäfer for his most valuable contributions to and comments on this paper.
As a preliminary remark, it is important to state the order of argumentation when speaking about a potential legal basis for the issuance, by the Eurosystem, of a digital euro. In our view, in a first step, one has to define what the underlying motivation is in the plans to introduce a digital euro – what purpose shall it serve, which objectives does the Eurosystem pursue by issuing it? In a second step, and influenced by the stance taken in the first, one needs to decide about the digital euro’s concrete design, for example: Shall it be wholesale, i.e. accessible only to a limited circle of participants, or retail, i.e. accessible in principle to everyone; shall it be account-based or token-based; shall it possess legal tender status? Only in a third step, having answered the two previous questions, one is in a position to decide over the potential legal basis for the issuance of a digital euro. As we all know, the ECB and the national central banks (NCBs) need an attributed competence for acting, in other words: while they have to pursue their statutory objectives and fulfil their statutory tasks, they must act based on a competence, a power conferred upon them.

As to the first question, the purpose of a potential digital euro, the Eurosystem’s report on a digital euro of October 2020 mentions a number of motivations. The diminishing use of cash and the potential introduction and widespread use of privately-issued digital currencies constitute the most important motivations besides the will to promote digitalisation. Concerning the concrete design options, several of them are more likely to be pursued further than others: First, clearly a digital euro accessible to the public at large, i.e. a retail digital euro, is at the heart of the discussions. Second, the decision about the concrete design – account- or token-based – remains open for the moment, the Eurosystem currently being in a phase of experimentation that involves as well account-based as token-based variants or a combination of both. Third, it is likely that the Eurosystem will wish to issue a digital euro with legal tender status.

Against this background, we intend to outline the question here on which legal basis the Eurosystem could envisage to issue a retail digital euro with legal tender status.

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2 No commonly accepted definition of “central bank digital currency” has yet emerged. The CPMI has stated (CPMI, Central Bank Digital Currencies, BIS, March 2018): “CBDC … is envisioned by most to be a new form of central bank money. That is, a central bank liability, denominated in an existing unit of account, which serve both as a medium of exchange and a store of value.” IMF staff defined CBDC as “a new form of money, issued digitally by the central bank and intended to serve as legal tender.”

3 This question is very important from a legal point of view. Whereas account-based money offers a high degree of legal certainty in private law, token-based money is something new where legal concepts namely in private law (e.g. classification, transfer, bona fide acquisition etc.) remain largely unclear.

4 Another design option which we leave aside here is whether users shall access the digital euro directly or through intermediaries.


2. Article 128 (1) TFEU as legal basis for the ECB and the NCBs to issue a digital euro?

According to Article 128 (1) TFEU, “the European Central Bank shall have the exclusive right to authorise the issue of euro banknotes within the Union. The European Central Bank and the national central banks may issue such notes. The banknotes issued by the European Central Bank and the national central banks shall be the only such notes to have the status of legal tender within the Union”. May the Eurosystem use this provision to issue a digital euro?

The text of the provision speaks of “banknotes”. The EU’s legislative provisions do not specifically define the term “banknote”, and there is no CJEU case law on the meaning of it. One may agree on the current, rather descriptive, non-legal definition (leaving the functions of a banknote aside for the moment): A banknote is a tangible, permanent object, made out of paper, cotton, polymer or an equivalent material, thin and flexible, signed by the central bank, stating its face value at fixed denominations (10, 20, 50 etc.) and accordingly transferable under civil law rules governing rights in rem (incl. acquisition by good faith). This definition would clearly not include a digital euro. While one might argue that the issue of material is not carved in stone (no pun intended), that entries in digital registers may meet the requirement of permanence, that a digital signature would be possible, a digital euro would still clearly not be a tangible object.

Some would say that as the term “banknote” seems clear and unambiguous, there is no room for further methods of interpretation, though according to the currently leading methodological approach, a wording is always and may always be ambiguous, however clear a term may appear. Others would urge for a cautious, legally certain interpretation given the potentially far-reaching implications and underlying risks of a digital euro.

Going forward, when trying a systematical interpretation, one could bring forward that Article 128 (1) TFEU is to be read in conjunction with Article 16 (2) of the Statute of the European System of Central Banks and the European Central Bank (ESCB Statute) according to which “the ECB shall

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8 We refrain from discussing the question whether a digital euro could qualify as a “coin”.
9 Cf. Freimuth, in: Siekmann, AEUV, Article 128 no 4 (emphasis ours): “Bargeld bezeichnet bewegliche Sachen, die Geld im Rechtssinne sind” („Cash means tangible things which are money in the legal sense“).
10 Zellweger-Gutknecht/Geva/Gruenewald, p. 65: “… we find that the paper medium is not a defining feature of the concept of a banknote”.
11 Zellweger-Gutknecht/Geva/Gruenewald, p. 65.
12 Cf. IMF Working Paper, p. 16: “… it is uncommon to define banknotes and coins. Thus, those concepts must be given their plain reading. In many, if not most, legal orders, this will be limited to paper (or plastic) banknotes and metallic coins". Ibid. p. 20: “Admittedly, in some jurisdictions, it could be argued that the existing legal concept of “banknotes” includes digital banknotes - … “banknotes” in digital, not material form - but in many countries, this might be a stretched legal interpretation”.
13 Fonseca, p. 7: “… a broad interpretation of the term ‘banknotes’ (eg including both physical and digital cash), would hardly be admissible. Considering the legal implications of such interpretation, a more cautious approach would be required. Thus, for the sake of legal certainty and given the underlying risks of payment systems, a preferable approach would be to amend both Article 128(1) of the Treaty and Article 16 of the Statute of the ESCB to fully include a CBDC that functions as a digital representation of the euro”. 

respect as far as possible existing practices regarding the issue and design of banknotes”. One could argue that this wording leaves some room for innovation as the ECB shall respect existing practices only “to the extent possible”\(^{14}\). However, it is clear that the content of this provision is different: It intends to respect national existing practices to the extent possible at the time of the respective introduction of the euro. In particular, Article 16 (2) ESCB Statute was drafted in order to accommodate the United Kingdom’s wish, should its currency be the euro one day, to have the picture of the Queen printed on one side of euro banknotes\(^ {15}\). Most importantly, Article 16 (2) ESCB Statute definitely does not have the quality of a competence, a power of the ECB\(^ {16}\); it is a provision requesting the ECB to act in a certain way when exercising its power according to Article 128 (1) TFEU. To conclude, Article 16 (2) ESCB Statute does not add additional considerations to the interpretation of Article 128 (1) TFEU.

**Historically** speaking, it comes without saying that the negotiators of the Maastricht Treaty had paper-based, tangible banknotes in mind when drafting these provisions\(^ {17}\). Admittedly, one cannot presume the EU legislator to have born in mind, when legislating decades ago, the prospect of future technological developments. Against this background, one could be tempted to assume that the EU legislator did not, neither explicitly nor silently, wish to *a priori* exclude the eligibility, as ‘banknotes’, of intangible instruments\(^ {18}\). However, such a presumption seems rather speculative: We cannot interpret the legislator’s will in either direction, neither in the sense that he wanted to include a digital euro into the concept of banknote nor that he wanted to exclude it – for a digital euro simply was not on anyone’s radar.

While it is true that monetary items have been under development for centuries, in our view, even when taking a historical viewpoint, we cannot consider a digital euro as “the last in a row of evolutionary steps” from the paper to the digital medium\(^ {19}\), but need to qualify it as a novelty, an *aliud* vis-à-vis a banknote. National case law may serve to underpin this opinion: Speaking with regard to the rules for the exchange of damaged banknotes, on 16 October 2007, the Higher Administrative Court of the German land Hessen held that “[b]anknotes are to be understood as papers or paper-like objects that serve the purpose of replacing the gold and silver coins previously used as legal tender. Such coins were deposited by travellers at money changers in earlier centuries and the money changer issued a certificate to prove the valuables deposited. As a more convenient means of payment than

\(^{14}\) Banque de France, p. 31.
\(^{15}\) Zellweger-Gutknecht/Geva/Gruenewald, p. 38 subs. with further references.
\(^{16}\) Zellweger-Gutknecht/Geva/Gruenewald, p. 39.
\(^{17}\) Cf. Banque de France, p. 31: “It is certainly true that the treaty’s authors did not imagine that banknotes and coins might be in any form other than physical”.
\(^{18}\) Zellweger-Gutknecht/Geva/Gruenewald, p. 64.
\(^{19}\) Zellweger-Gutknecht/Geva/Gruenewald, p. 65.
coins, these papers, called “banker's note”, quickly became a largely recognized surrogate [...]. [...] Banknotes consist either of paper or of other materials (e.g. plastic, polymer), but are in any case paper-like and, due to their size, small thickness and flexibility, suitable for use in trade and commerce. Papers that are already too large or too thick are not suitable for the intended purposes of monetary transactions and storage and are therefore excluded as banknotes. The same applies to all other items."\(^\text{20}\) Naturally, at the time, the court had no reasons to consider non-material money. Yet, this decision shows that if a new manifestation of money emerges, supplementing and partly replacing older manifestations, i.e. banknotes supplementing and partly replacing coins at the time, these new forms of money were legally treated as novelties, subject to different rules.

Finally, when it comes to a teleological interpretation of Article 128 (1) TFEU, thus asking for the purpose of Article 128 (1) TFEU, the core question in this context would be: Is it the purpose of Article 128 (1) TFEU to give the ECB and the NCBs the power to issue an instrument which is able to fulfil the functions of a banknote under a changing economic, social and technological environment? Zellweger-Gutknecht et al. take this stance. In their view, “Article 128 (1) TFEU should be read in light of the intention to design a constitutional framework for Economic and Monetary Union (EMU) that is flexible enough to accommodate economic, social and technological developments. This particularly pertains to developments that, like the crowding out of cash by privately-issued digital currencies, could jeopardise the use of the euro as the single currency, which underlies EMU as its very basis."\(^\text{21}\) According to this opinion, the interpretation of Article 128 (1) TFEU needs to leave the paper-medium and tangibility criterion aside and is to be read instead as putting the Eurosystem in charge of issuing or authorising the issuance of a retail public money that is able to fulfil the functions of a banknote.\(^\text{22}\) In other words: According to the functional definition of money, money fulfils three functions: It serves as a means of exchange, as a store of value and a unit of account. The reasoning would be that the Eurosystem needs to be in a position to issue a retail public money that is able to fulfil these three functions of money.

There are several aspects of this line of argumentation, which we would like to address successively. First, the article mentions the aspect that privately-issued digital currencies could jeopardise the use of the euro as the single currency or, in other words: threaten monetary sovereignty in the euro area. One could imagine such threat for example if prices were no longer indicated in euro but in a privately issued digital currency not directly linked to the euro, but possibly to a basket of currencies – thus

\(^{21}\) Zellweger-Gutknecht/Geva/Gruenewald, p. 65.  
\(^{22}\) Ibid. p. 65.
taking over one of the functions of money, to serve as a unit of account. While it is certain that the publication of Facebook’s intentions to bring forward a global “stablecoin” now named Diem has had the effect of a wakeup call on central banks all over the world, we are not convinced that this fact can play a role when interpreting Article 128 (1) TFEU. For we have to bear in mind: Legislators are in a position to either forbid or regulate privately-issued digital assets, as the MiCa-Proposal discussed below clearly shows. Where the legislator imposes a redemption right at par on issuers of “tokens”, such token would be legally linked at par to the sovereign currency – and, like e-money, would not constitute a threat to monetary sovereignty.

Second, another aspect of this argumentation is a declining use of cash. To start with, we think that Diem would possibly rather supplement or replace established payment solutions based on commercial bank book money and thus enlarge the circle of non-cash means of payment. In other words: It would possibly contribute to a diminution of cash but not necessarily be the one decisive factor that would lead to its crowding out. A diminishing use of cash seems already underway today, without privately-issued digital currencies taking a large share in digital payments, but due to a general change in commerce’s and consumers’ habits, a tendency which seems to have increased during the pandemic\(^{23}\) – though cash still remains the main payment instrument both in terms of the total number of payments and in terms of the total value\(^{24}\). Nevertheless, indeed, a diminution of the share of cash payments in the total sum of payments has occurred in Europe for years. The argument would be that where, in a future scenario, most or almost all payments are executed in commercial bank money, i.e. non-central bank money, the ECB and the NCBs need to be in a position to issue an alternative retail public money that serves as a credit-risk free means of payment and store of value. However, while acknowledging the factual change in payment habits, this argument does not seem entirely convincing either. On the one hand, the Eurosystem would continue to issue a retail public money serving as a credit-risk free means of payment and store of value: cash. The official communication of the Eurosystem has always been emphasizing and continues to emphasize that a digital euro would only complement, but not replace cash. If one wanted to reply to this that such a cash issuance could become meaningless if the use of cash declines further, making of cash a hollow construct which does not play any role in citizens’ and businesses’ daily life, one may state that such development is not inevitable, that the legislator is in a position to prevent it. Indeed, legislators may oblige credit institutions to offer cash services (e.g. adequate cash withdrawal or cash deposit services) to consumers in a situation where cash would become so rarely used that a cash infrastructure is no longer available.

\(^{23}\)ECB, Study on the payment attitudes of consumers in the euro area (SPACE), December 2020, p. 77, available under Study on the payment attitudes of consumers in the euro area (europa.eu).

\(^{24}\)Ibid. p. 77.
everywhere. For instance, the Swedish legislator has imposed such obligations on certain Swedish credit institutions and branches in a law adopted in 2019 and applicable since the beginning of 2021. In its opinion on the draft law, the ECB welcomed the Swedish plans and encouraged all Member States to ensure that credit institutions and branches operating within their territories provide adequate access to cash services, in order to facilitate the continued use of cash\textsuperscript{25}. In a nutshell: Even in a time of changing payment habits, the legislator is able to continue to put at the public’s disposal a public means of payment and to oblige financial institutions to take part in the keeping up of the necessary infrastructure.

In this context, let us also emphasize that while cash has played a bigger role in payments in the past, as part of the monetary aggregate M\textsubscript{1}, it has always only constituted a small part in the total monetary aggregates. In other words, the share of commercial bank money (i.e. book money) in the total monetary aggregates was close to 90% already one hundred years ago\textsuperscript{26}. In a nutshell, the ECB and the NCBs have vowed to continue to issue cash, the legislator is in a position to make private actors maintain the cash infrastructure, and the share of cash in the total monetary aggregates has been very small for a long time without the Eurosystem considering this as a reason to issue a new means of payment.

Third, a digital euro cannot and would not fulfil all the functions of a banknote. On the one hand, a digital euro, due to its digital nature, can never and does not intend to present the same level of anonymity as a banknote. It does not intend to do so either: Even if, as definitely planned, a certain degree of anonymity was guaranteed, for legitimate reasons of anti-money laundering (AML) and countering the financing of terrorism (CFT), the design of a digital euro would make sure that illicit money will not flow unchecked in the digital euro network\textsuperscript{27}. On the other hand, even though the Eurosystem is aware of the need to make a digital euro inclusive, to design it in a way that makes it accessible to everyone, it is very clear that a digital euro would not be as accessible and inclusive as cash – some technical barriers, e.g. the need to possess any kind of device to hold and transfer a digital euro (e.g. a mobile phone, another bearer instrument), will exist in any case. Finally, the Eurosystem has made it quite clear that a digital euro shall not be used to serve as store of value. On the contrary, the Bindseil-Model of a tiered remuneration of a digital euro has been constructed in order to discourage citizens and businesses from using a digital euro as a store of value to prevent unwanted effects of a so-called disintermediation of the banking sector.

\textsuperscript{25} Opinion of the European Central Bank of 26 November 2019 on the requirement for certain credit institutions and branches to provide cash services (CON/2019/41), point 2.3: “The ECB considers it important that all Member States, including non-euro area Member States, take appropriate measures to ensure that credit institutions and branches operating within their territories provide adequate access to cash services, in order to facilitate the continued use of cash”.

\textsuperscript{26} Cited after Freimuth, in: Siekmann, AEUV, Article 128 no 5.

\textsuperscript{27} Report on a digital euro, p. 19, footnote 38.
To conclude, we cannot find that Article 128 (1) TFEU is to be interpreted in a way that it includes the competence of the ECB and the NCBs to issue a digital euro. Consequently, in order for the Eurosystem to be able to issue a digital euro, a possible avenue would be to amend the TFEU and to introduce an explicit reference into Article 128 (1) to a digital euro.\textsuperscript{28}

3. \textit{If Art. 128 (1) TFEU is used, a digital euro would need to present the main characteristics of a banknote}

An amendment of the TFEU, as we are well aware, is not something that we can realistically expect to happen or only to be desired by the Member States in quite the near future. Against this background, we think it possible that the relevant actors, including Union actors such as the Commission, the Eurogroup and the European Parliament reach consensus that the Eurosystem has the competence to issue a digital euro as a digital equivalent to banknotes on the basis of Article 128 (1) TFEU.\textsuperscript{29} In this case, we would like to expressly support the stance taken by Zellweger-Gutknecht et al. that a digital euro issued under Article 128 (1) TFEU would need to present the main characteristics of a banknote. What would this mean exactly?

First, it would mean that a digital euro must \textbf{not pursue monetary policy objectives}.\textsuperscript{30} It could therefore not bear (positive or negative) interest in order to use it as a monetary policy instrument. It remains questionable whether an interest introduced in order to disincentivise users from using a digital euro as a store of value, as the Bindseil-Model of a tiered remuneration of the digital euro\textsuperscript{31} proposes, would be admissible under Article 128 (1) TFEU. We rather doubt it. Even if such interest-bearing digital euro did not serve a monetary policy objective, it would not appear to be following the model of a banknote which is (as opposed to a bond or a negotiable instrument embodying a payment obligation of the issuer with interest coupons adherent to it) by nature not interest-bearing.

Second, in our view, a digital euro issued under Article 128 (1) TFEU could \textbf{not be account-based}. Article 17 of the ESCB Statute attributes the Eurosystem the competence to open accounts to a limited

\begin{itemize}
  \item \textsuperscript{28} The IMF Working Paper, p. 42, describes the introduction of an explicit reference as one legally certain way to create a legal basis for the issuance of a central bank digital currency.
  \item \textsuperscript{29} Another avenue to reach this position could be to say that even if a digital euro was not to qualify as a banknote, the ECB could issue such digital euro because of implied powers that are indispensable for the ECB to fulfil its monetary mandate. In detail: Zellweger-Gutknecht/Geva/Gruenewald, p. 70 subs.
  \item \textsuperscript{30} Grünewald et al., p. 8 subs. Cf. p. 9: “… codify both the competence and the task of banknote issuance in a separate article was logical. Banknotes—whether tangible or digital—enable the Eurosystem to fulfil its basic tasks on a fundamental level but without directly constituting an instrument or tool in the conduct of policies in fulfilment of these tasks. In other words, the fact that banknote issuance is codified in a separate article supports the notion that banknotes—both tangible and digital—are a logical precondition for monetary policy but were never intended to serve as an instrument of that policy.”
  \item \textsuperscript{31} Bindseil, 2020. Cf. also the short column on the same subject by Panetta/Bindseil, \textit{CBDC remuneration in a world with low or negative nominal interest rates} | VOX, CEPR Policy Portal (voxeu.org).
\end{itemize}
circle of participants\textsuperscript{32} and “in order to conduct their operations”\textsuperscript{33}, hence for monetary policy operations and not in order to create a digital means of payment for everyone. Article 17 ESCB Statute would therefore not present an appropriate legal basis to issue a digital euro. Now, to take Article 128 (1) TFEU as a legal basis, but then introduce a digital euro in the form of book money ultimately held on accounts at the central bank would constitute a clear circumvention of the conditions laid down in Article 17 ESCB Statute. Moreover, from a civil law perspective, an account constitutes a construct fundamentally different from a banknote. Whereas an account balance constitutes a claim – and, as concerns an account at the central bank: a claim against this central bank for convertibility at par with another representation of the euro – and exists thanks to a contract between the account-owner and the account-holding financial institution, a banknote is a movable, a tangible thing which is treated according to in rem rules, meaning that one can acquire ownership in them and this ownership is transferred according to in rem rules (including acquisition by a bona fide acquirer, etc.). Accordingly, a banknote is not an account, and a digital euro must not take the form of an account if the Eurosystem were to issue it on the legal basis for banknote issuance.

Third, one could argue that like banknotes, a digital euro issued based on Article 128 (1) TFEU would need to be \textbf{transferable peer-to-peer, without intermediary}. Technical solutions seem to be at hand in this respect. In connection with this subject is the issue of \textbf{anonymity}. As said before: Whereas banknotes permit anonymous transactions, independent of the identity of the transacting parties, it is very clear that with a digital euro, fully anonymous transactions would be neither possible (there will always be a digital trace) nor desired (for reasons of anti-money laundering, combating the financing of terrorism etc.).

\textbf{4. Conclusion}

With regard to a digital euro, many legal questions remain open for the moment. However, while legal discussions have already taken place in the Eurosystem\textsuperscript{34}, they do not seem to be the main occupation of decision-makers for the moment. Economic studies and technical experiments take a greater place in the preparations of the political decision-making process. However, we should never leave the legal foundations aside – they determine what the Eurosystem can do under what conditions and the discussion on them should be the first step when deciding on a digital euro, not the last one.

\textsuperscript{32} Cf. IMF Working Paper, p. 42: “As account-based CBDC is “book money,” it can only be offered to entities for whom the central bank is authorized to offer cash current accounts. Many central bank laws currently do not authorize the central bank to offer accounts to the general public”.

\textsuperscript{33} Article 17 ESCB Statute: Accounts with the ECB and the national central banks: \textit{In order to conduct their operations, the ECB and the national central banks may open accounts for credit institutions, public entities and other market participants and accept assets, including book entry securities, as collateral (emphasis added).}

\textsuperscript{34} Report on a digital euro, p. 24 subs.
Part 2 – Recent legal developments in the area of crypto-assets

Introduction

On 24 September 2020, the European Commission published its Digital Finance Package. Along with a “Digital Finance Strategy” and a “Retail Payments Strategy”, the package contains proposals for a total of three regulations, amongst which the “Regulation on Markets in Crypto-Assets, and amending Directive (EU) 2019/1937” (MiCA) has garnered the most attention by practitioners and scholars. This draft regulation has since been under discussion by a working party of the European Council and shall be the object of this part of the article. In the first section, we will take a closer look at the aims and scope of MiCA as proposed by the European Commission before we turn to the draft regulation’s contents in the second section. Finally, some light will be shed on select issues currently discussed in the Council working group and elsewhere.

1. Aims and Scope of the Commission’s Proposal for MiCA

The European Commission’s main aim pursued with the MiCA proposal is to regulate the novel area of crypto-assets – particularly with a view to plans by e.g. the Diem Association to issue private “stablecoins” – in order to provide actors looking at gaining a foothold in the European market with certainty regarding their regulatory environment. The focus lies on legal certainty as a prerequisite for innovation and secure investments. The Commission does not intend to overregulate crypto-assets and thereby stifle emerging concepts but instead provide a clear legal framework that actively promotes innovation.

At the same time, great value is placed on ensuring that consumers are adequately protected against the risks that come with this new type of asset class. Since much of the technology involved is new and rather unknown to many people, comprehensive rules on transparency as well as investor rights are crucial for ensuring broad acceptance and thus lasting success of crypto-assets.

All of these aims are united by the Commission’s overarching goal of achieving a common European approach that makes it easy for market actors to move from one member state to the other while avoiding regulatory arbitrage and a possible race to the bottom as member states compete in attracting crypto actors by lowering standards. That is why the proposed regulation is intended to replace any

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37 As expressed by Jan Ceyssens of DG FISMA, European Commission, in various public talks (e.g. the virtual conference “A new EU framework for crypto-assets: implications for Europe’s financial services industry” hosted by The Center for Financial Studies (CFS) at Goethe University Frankfurt together with Freshfields Bruckhaus Deringer, the Institute for Law and Finance and the Leibniz Institute for Financial Research SAFE on 2 October 2020).
existing national rules member states may have already put into place. In order to support this common approach, the Commission plans on issuing detailed guidance on the interpretation of MiCA in the future.

Thus, the MiCA proposal is essentially designed to be a “one stop shop”: an overall regulation for various types of crypto-assets, various types of actors, and various types of scenarios – anywhere in the European Union.

The scope of the proposal reflects these aspirations. MiCA contains rules for persons who engage in the issuance of crypto-assets or provide services related to crypto-assets within the European Union. It comprises rules for actors’ business activity as well as for the supervision of these actors. And finally, MiCA is intended to cover all (and only) crypto-assets that are not addressed by existing rules due to them qualifying as financial instruments, deposits, etc.

Crypto-assets that qualify as financial instruments under MiFID II\(^\text{38}\) (e.g. DLT-transferable securities\(^\text{39}\)), for instance, shall not fall into the scope of the proposal. To this end, the Digital Finance Package contains a proposal for a directive that would \textit{inter alia} amend the definition of “financial instrument” in MiFID II to include such instruments issued by means of distributed ledger technology (DLT),\(^\text{40}\) thus subjecting them to the MiFID II regime.

Our analysis will focus primarily on issuers of crypto-assets rather than on providers of services regarding crypto-assets and will for the main part look at rules concerning the conduct of the issuers’ actual business instead of at supervisory aspects, which would give rise to their own analysis. In addition, our analysis of the crypto-assets covered by MiCA will place particular emphasis on so-called asset referenced tokens (ARTs) as well as on e-money tokens (EMTs).

2. Contents of the Proposal

While there is one other type of token, the utility token,\(^\text{41}\) the Commission’s proposal focuses heavily on three main types of crypto-assets: crypto-assets in general, asset-referenced tokens, and electronic money tokens.

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\(^{41}\) Defined in Article 3(1)(65) as “a type of crypto-asset which is intended to provide digital access to a good or service, available on DLT, and is only accepted by the issuer of that token.”
Crypto-assets in general are defined as “a digital representation of value or rights which may be transferred and stored electronically, using distributed ledger technology or similar technology”.42 This definition has intentionally been drafted in a broad (“catch all”) manner in order to be sufficiently open to allow the MiCA proposal to apply to new concepts and types of crypto-assets that might emerge in coming years without having to be updated on a regular basis. This approach supports the Commission’s aim of “future proofing” the proposed regulation in a highly dynamic technical environment.

Since some of the most important obligations regarding crypto-assets are linked to a person being the crypto-asset’s issuer it is crucial to take a look at who qualifies as issuer. Issuers of crypto-assets are defined by the proposal as “a legal person who offers to the public any type of crypto-assets or seeks the admission of such crypto-assets to a trading platform for crypto-assets”,43 an offer to the public being defined as “an offer to third parties to acquire a crypto-asset in exchange for fiat currency or other crypto-assets”.44

Title II of the proposal regulates crypto-assets, other than asset-referenced tokens or e-money tokens, and contains certain obligations with which issuers of such crypto-assets must comply. Since this part of the regulation addresses the basic type of crypto-assets (Bitcoin might be a prominent case in point), which is deemed to be associated with less risk than ARTs and EMTs, the duties it imposes on issuers are only general in nature, constituting what some call a baseline regulation. For instance, issuers must be established as a legal entity,45 must publish a white paper for the crypto-assets they wish to issue,46 and are required to notify this white paper to the national competent authority (NCA) of their member state.47 Contrary to what is required of issuers of ARTs and EMTs, there is no need for an authorisation. In addition, issuers need to comply with basic rules of behaviour,48 e.g. disclose any conflicts of interest and act honestly, fairly, and professionally. Lastly, they are required to ensure that their market communications are identifiable as such, clear, and in line with the information provided in the white paper.49

In addition to general crypto-assets, the MiCA proposal introduces ARTs and EMTs as specialised types of crypto-assets.

42 Article 3(1)(2).
43 Article 3(1)(6).
44 Article 3(1)(7).
45 Article 4(1)(a).
46 Articles 4(1)(d) and 8.
47 Articles 4(1)(c) and 7.
48 Article 13.
49 Article 6.
ARTs are defined 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". Thus, tokens referring to gold, silver, or oil, to Bitcoin, to a currency basket of e.g. EUR, USD, and JPY, or to a combination of any of these assets would qualify as ARTs. This category would also notably include a multi-currency coin issued by the Diem Association. MiCA envisages a type of regulation for ARTs that is similar to what applies to undertakings for collective investment in transferable securities (UCITS) or open-end funds, particularly when it comes to redemption rights for ART holders vis-à-vis the ART’s issuer. Issuers of ARTs face stricter regulation than issuers of general crypto-assets and are required to comply with a larger number of obligations. First and foremost, ART issuers require an authorisation from the NCA. These authorisations are valid within the entire Union under a passporting scheme, meaning that prospective issuers will not need to apply for authorisation in every member state in which they intend to do business. Second, issuers of ARTs are required to maintain a reserve of assets, which is audited regularly. This reserve is intended to help stabilise the ART’s value. It must be segregated from the issuer’s own assets and may only be invested in highly liquid financial instruments. As a measure of last resort, in case ART issuers need or wish to terminate their business activities or should the market value of the ARTs differ significantly from the asset of reference or the value of the reserve assets, the reserve assets are sold and the proceeds used to indemnify the ART holders. In the current proposal, there is no obligation for ART issuers to grant all holders of their respective ARTs a permanent redemption right for their tokens outside of these circumstances.

A major difference of ARTs – and EMTs – compared to crypto-assets in general is that the EBA may qualify as significant ARTs that meet certain criteria. These criteria include the size of the ART’s customer base, the value of the ARTs issued, the number and value of transactions in the respective ART, as well as the size of the reserve of assets.

Issuers of ARTs thus qualified must fulfil additional requirements, regarding e.g. diversification of custody of the ARTs, or enhanced liquidity management.  

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50 Article 3(1)(3).  
51 Articles 15(1) and 19.  
52 Article 15(5).  
53 Article 32.  
54 Article 32(5).  
55 Article 33(1)(a).  
56 Article 34(1).  
57 Article 35(4).  
58 cf. Article 35(3) and (4).  
59 Article 39(1).  
60 Article 41(2).  
61 Article 41(3).
Finally, the MiCA proposal recognises EMTs as a specific type of crypto-assets, defining them as “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”. Thus, within MiCA’s scope, EMTs come closest to what a layperson might think of when being confronted with the term “crypto-currency”, encompassing e.g. a GBP coin Diem might issue in the future as well as Tether, a so-called stablecoin tied to USD.

For EMTs, MiCA envisages regulation closely modelled after the EMD II, particularly regarding a redemption right at par granted to EMT holders vis-à-vis the issuer. For instance, issuers need to be authorised as credit institutions or as electronic money institutions within the meaning of the EMD II. Furthermore, they shall issue their EMTs at par value and upon receipt of funds within the meaning of the PSD II. At the same time, they must enable EMT holders to redeem their tokens at any time and at par value. No interest may be paid for issued EMTs and the funds received in exchange for the EMTs must be invested in the same currency.

In addition, however, issuers of EMTs are required to comply with similar obligations as ART issuers. Thus, as with ARTs, EMTs that fulfil certain criteria may be classified as significant by the EBA. Being qualified as significant brings with it additional obligations for the EMT’s issuer that are similar to those of issuers of significant ARTs. Most notably, the rules on the reserve of assets maintained by ART issuers apply to issuers of significant EMTs. This raises the applicable standards compared to those entailed by reserve management in accordance with the EMD II. Lastly, issuers of significant EMTs must prepare plans for an orderly wind-down.

On a general note, the proposed MiCA regulation is planned to apply 18 months from its entry into force. This transitionary period allows actors to take the necessary steps forward in order to comply

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62 Article 3(1)(4).
64 cf. Article 43(1)(b).
65 Article 43(1)(a).
67 Article 44(3).
68 Article 44(4).
69 Article 45.
70 Article 49.
71 Article 50(1).
72 Article 52(a).
73 cf. Article 7 of EMD II.
74 Article 52(d).
75 Article 126(2).
with the new regulation. However, rules on ARTs and EMTs shall be applicable from the day of MiCA’s entry into force.  

3. Current Discussion

Discussions on MiCA have focused on various aspects of the Commission’s proposal. One of the first items was the definition of ARTs, in particular the wording “fiat currency that is legal tender”. Since there is no common concept of legal tender within the Union, understandings of what is or may be legal tender vary, creating confusion when using the term for a Union-wide definition. Therefore, a majority of observers have advocated amending the wording of the proposal to read “official currency of a country”.

Another major issue raised by commentators regards so-called global stablecoins such as a possible multi-currency coin issued by Diem. Such coins would qualify as ARTs under the current definition as they would refer to several official currencies. However, they would also contain certain elements of EMTs since they could be widely used for payment purposes. This rather unclear separation of EMTs, which are designed to serve as a means of exchange, on the one hand and ARTs, which are \textit{prima facie} designed in a manner similar to financial instruments but may also be used as a means of payment, is perceived as unsatisfactory and potentially threatening to monetary sovereignty as well as the implementation of monetary policy since ARTs that are widely used for payment purposes without being tied to a single official currency might become \textit{de facto} currencies, thus depriving central banks of an important monetary policy vehicle. Recent discussions have seen a variety of proposed solutions for this problem. One of these has been to introduce the sub-categories of “payment ARTs” and “non-payment ARTs” in order to be able to attach different types of regulation to the two, the former being regulated more like EMTs or perhaps even prohibited. A similar, less drastic proposal envisages enabling central banks to closely monitor whether a type of ARTs is widely used for payment purposes and poses a threat to monetary policy and/or sovereignty. Should such a determination be made, the ARTs in question could either be prohibited or subjected to limits regarding the amount of units issued.

In any event, it is viewed as imperative by many actors that holders of ARTs be granted a permanent redemption right against the issuer in order to limit any adverse effects on the transmission of monetary policy. At the same time, such a redemption right would serve to ensure consumer protection in this novel area of finance.

\footnote{Article 126(3).}
Lastly, there have been calls to put in place stricter requirements regarding the management of an ART issuer’s reserve of assets. Such added elements could include requiring the reserve assets to be adequately diversified, while also observing issuer-related limits.

Discussions within the various fora are ongoing and the final shape of MiCA remains to be seen. Already, however, it is safe to say that whatever the outcome, the proposal constitutes a sizeable step forward in providing future-proof regulation for the digital age of finance.
Bibliography:


Committee on Payments and Market Infrastructures (CPMI), Central Bank Digital Currencies, BIS, March 2018.


Mancini Griffoli, Tommaso et al.: Casting Light on Central Bank Digital Currencies, IMF, Staff Discussion Notes No. 18/08, November 2018.

Manger-Nestler, Cornelia: Digitales Zentralbankgeld aus währungsrechtlicher Sicht, Recht der Zahlungsdienste, 01/2021, February 2021, pp. 4 – 11.

Siekmann, Helmut (Hrsg.): Kommentar zur Europäischen Währungsunion, Tübingen, 2013.


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</tr>
<tr>
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<td>Legal Aspects of German Hedge Fund Structures; (publ. in: Baums/Cahn [Hrsg.]; Hedge Funds, Risks and Regulation, 2004, S. 91 ff.)</td>
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<td>20</td>
<td>Andreas Cahn</td>
<td>Das richterliche Verbot der Kreditvergabe an Gesellschafter und seine Folgen; (publ. in: Der Kongreß 2004, S. 235 ff.)</td>
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<td>The Duty of Care in American Corporate Law; (deutsche Übersetzung publ. in: Der Kongreß 2004, S. 386 ff.)</td>
<td></td>
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<tr>
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<td>Jürgen Than</td>
<td>Rechtsfragen bei der Festlegung von Emissionsbedingungen für Schuldverschreibungen unter besonderer Berücksichtigung der Dematerialisierung und des Depotgesetzes; (publ. in: Baums/Cahn [Hrsg.]; Die Reform des Schuldverschreibungsrechts, 2004, S. 3 ff.)</td>
<td></td>
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<tr>
<td>24</td>
<td>Philipp von Randow</td>
<td>Inhaltskontrolle von Emissionsbedingungen; (publ. in: Baums/Cahn [Hrsg.]; Die Reform des Schuldverschreibungsrechts, 2004)</td>
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<td>Hannes Schneider</td>
<td>Die Änderung von Anleihebedingungen durch Beschluß der Gläubiger; (publ. in: Baums/Cahn [Hrsg.]; Die Reform des Schuldverschreibungsrechts, 2004)</td>
<td></td>
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<td>Hans-Gert Vogel</td>
<td>Die Stellung des Anleihebetheißers nach deutschem Recht; (publ. in: Baums/Cahn [Hrsg.]; Die Reform des Schuldverschreibungsrechts, 2004)</td>
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</tr>
<tr>
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<td>Georg Maier-Reimer</td>
<td>Rechtsfragen der Restrukturierung, insbesondere der Ersetzung des Schuldners; (publ. in: Baums/Cahn [Hrsg.]; Die Reform des Schuldverschreibungsrechts, 2004)</td>
<td></td>
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<tr>
<td>28</td>
<td>Christoph Keller</td>
<td>Umschuldung von Staatenanleihen unter Berücksichtigung der Problematic einer Aggregation aller Anleihegläubiger; (publ. in: Baums/Cahn [Hrsg.]; Die Reform des Schuldverschreibungsrechts, 2004)</td>
<td></td>
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</tbody>
</table>


32. Andreas Cahn  Bankgeheimnis und Forderungsverwertung; (publ. in: WM 2004, S. 2041 ff.)

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48. Theodor Baums  Die Fremdkapitalfinanzierung der Aktiengesellschaft durch das Publikum; (publ. in: Bayer/Habersack [Hrsg.], Aktienrecht im Wandel, Band II, 2007, 952 ff.)

49. Ulrich Segna  Anspruch auf Einrichtung eines Girokontos aufgrund der ZKA-Empfehlung „Girokonto für jedermann“?; (publ. in: BKR 2006, S. 274 ff.)


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53. Stefan Simon / Daniel Rubner  Die Umsetzung der Richtlinie über grenzüberschreitende Verschmelzungen ins deutsche Recht; (publ. in: Der Konzern 2006, S. 835 ff.)

54. Jochem Reichert  Die SE als Gestaltungsinstrument für grenzüberschreitende Umstrukturierungen; (publ. in: Der Konzern 2006, S. 821 ff.)


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Aktuelle Entwicklungen im Europäischen Gesellschaftsrecht; (publ. in: Die AG 2007, S. 57 ff.)

58. Theodor Baums

59. Andreas Cahn / Jürgen Götz
Ad-hoc-Publizität und Regelberichterstattung; (publ. in: Die AG 2007, S. 221 ff.)

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„Defensive bids“ für Staatsanleihen – eine Marktmanipulation?; (publ. in: ZBB 2007, S. 124 ff.)

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Die Auswirkungen der Kapitaländerungsrichtlinie auf den Erwerb eigener Aktien; (publ. in: Der Konzern 2007, S. 385 ff.)

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Rechtsfragen der Innenfinanzierung im Aktienrecht

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64. Oliver Stettes
Unternehmensmitbestimmung in Deutschland – Vorteil oder Ballast im Standortwettbewerb?; (publ. in: Die AG 2008, S. 611 ff.)

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Fortschritte bei Klagen gegen Hauptversammlungsbeschlüsse? Eine empirische Studie; (publ. in: ZIP 2007, S. 1629 ff.)

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Die zentrale Gegenpartei beim unzulässigen Erwerb eigener Aktien; (publ. in: ZBB 2007, S.257 ff.)

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Zur Deregulierung des Depotstimmrechts; (publ. in: ZHR 171 [2007], S. 599 ff.)

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The Rise and Effects of the Indirect Holding System: How Corporate America ceded its Shareholders to Intermediaries

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Das Wettbewerbsverbot des Vorstands in der AG & Co. KG; (publ. in: Der Konzern 2007, S. 716 ff.)

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Zum Ordnungswert des § 136 InsO; (publ. in: ZInsO 2007, S. 914 ff.)

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Abmahnung von GmbH-Geschäftsführern in befristeten Anstellungsverhältnissen; (publ. in: GmbHR 2008, S. 527 ff.)

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Das „neue“ acting in concert – ein Fall für den EuGH?; (publ. in: Die AG 2008, S. 73 ff.)

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Europäische Modellgesetze im Gesellschaftsrecht; (publ. in: Kley/Leven/Rudolph/Schneider [Hrsg.], Aktie und Kapitalmarkt. Anlegerschutz, Unternehmensfinanzierung und Finanzplatz, 2008, S. 525 ff.)

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   Zur Offenlegung von Abfindungszahlungen und Pensionszusagen an ein ausgeschiedenes Vorstandsmitglied; (publ. in: ZIP 2008, S. 2395 ff.)
94. Ulrich Seibert / Tim Florstedt
   Der Regierungsentwurf des ARUG – Inhalt und wesentliche Änderungen gegenüber dem Referentenentwurf; (publ. in: ZIP 2008, S. 2145 ff.)
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98. Andreas Cahn
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99. Melanie Döge / Stefan Jobst
   Aktienrecht zwischen börsen- und kapitalmarktorientiertem Ansatz; (publ. in: BKR 2010, S. 136 ff.)
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Eigenkapital: Begriff, Aufgaben, Sicherung; (publ. in: ZHR 2011, S. 160 ff.)

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Der Kontrollbegriff des WpÜG; (publ. in: Mülbert/Kiem/Wittig (Hrsg.), 10 Jahre WpÜG, ZHR-Beiheft 76 (2011), S. 77 ff.)

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Professionalisierung des Aufsichtsrats; (publ. in: Veil [Hrsg.], Unternehmensrecht in der Reformdiskussion, 2013, S. 139 ff.)

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Anfechtungsklagen und Freigabeverfahren. Eine empirische Studie; (publ. in: ZIP 2011, S. 2329 ff.)

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Rechtsgrundlage und Reichweite der Compliance in Aktiengesellschaft und Konzern; (publ. in: ZIP 2012, S. 1542 ff.)

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