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DIGITAL EURO AND ECB POWERS

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Abstract

The use of cash in the euro area is declining. Accordingly, the European Central Bank is exploring options for the design of a digital euro as a form of central bank money available to the public. This article addresses the key question of whether the Eurosystem is empowered to issue a digital euro and, if so, in what form. Based on a historical, teleological, and systematic interpretation, it argues that Article 128(1) TFEU serves as both a source of competence for the Eurosystem to issue a digital euro and a limitation to that competence. The Eurosystem's powers are necessarily exclusive and must prevail over the remaining competence of Member States to issue tangible coins on the basis of Article 128(2) TFEU. The article also addresses whether a digital euro would and should possess legal tender status, referring to recent case law in the field.

1. Introduction

Digitalization increasingly affects all aspects of our lives and of society at large. Money is no exception. The ways in which we pay and save are changing, driven by considerations of convenience and a demand for immediacy. While cash – the only form of central bank money available to the public to date – continues to dominate in payments of small amounts, the general trend is towards cashless and even contactless payments using cards,

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smartphone apps, or smartwatches.[1] While resort to cash as a store of value may be taken in exceptional circumstances,[2] the vast majority of European citizens deposit their savings in bank accounts or invest them in financial markets or real estate. Private actors, such as large technology firms, are developing global payment solutions attuned to the public's new demands. The availability of "stablecoins",[3] which are not necessarily denominated in euro, may further diminish the attractiveness of the euro's physical attributes as a means of payment and potentially as a store of value.

These developments and future prospects have prompted the European Central Bank, like other central banks,[4] to explore options for the design of a digital euro to complement (and potentially replace over time) tangible euro cash, thereby making a more contemporary form of central bank money available to the public.[5] Of course, digital means of payment already exist in the form of electronic transfers, but these transfers are conducted in money created by commercial banks and are only ultimately settled in central bank money.[6] What is lacking, however, is a digital euro issued by the Eurosystem[7] that can be used by the public in daily life – in other words, a digital equivalent to euro banknotes.

1. While there are differences among the Member States, overall, the use of cash in the euro area is declining. See Esselink and Hernández, "The use of cash by households in the euro area", ECB Occasional Paper Series No. 201 (Nov. 2017).

2. After the collapse of Lehman Brothers, for example, the German Bundesbank issued as many EUR 500 banknotes in a single month as it had during the entire preceding year. See Weidmann, "Eröffnungsrede" in Deutsche Bundesbank (Ed.), *3. Bargeldsymposium der Deutschen Bundesbank 2016* (Frankfurt, July 2016), pp. 9–18, at p. 13.

3. See Arner, Auer and Frost, "Stablecoins: Risks, potential and regulation", BIS Working Papers No. 905 (Nov. 2020); Financial Stability Board (FSB), "Regulation, supervision and oversight of 'global stablecoin' arrangements" (13 Oct. 2020); International Crypto-Assets Task Force (ICA-TF), "Stablecoins: Implications for monetary policy, financial stability, market infrastructure and payments, and banking supervision in the euro area", ECB Occasional Paper Series No. 247 (Sept. 2020). Stablecoins differ from other private digital currencies in that their value is kept particularly stable through selected mechanisms: while asset-linked stablecoins are backed with correspondingly secure assets, algorithm-based stablecoins are adjusted with respect to quantity in response to demand via the underlying protocol.

4. Examples include Banque de France, "Central bank digital currency" (8 Jan. 2020); Bank of Canada, "Contingency planning for a central bank digital currency" (25 Feb. 2020); Bank of England, "Central bank digital currency: Opportunities, challenges and design", Discussion Paper (March 2020). See also BIS Committee on Payments and Market Infrastructures and Markets Committee, "Central bank digital currencies", CPMI Papers No. 174 (March 2018); Bossu, Itatani, Margulis, Rossi, Weenink and Yoshinaga, "Legal aspects of central bank digital currency: Central bank and monetary law considerations", International Monetary Fund Working Paper No. 20/254 (Nov. 2020).

5. See European Central Bank, "Report on a digital euro" (Oct. 2020).

6. This happens in the form of reserves held by commercial banks with the central bank.

In light of the principle of conferral[8] and the need for the ECB to act within its mandate, the issuance of a digital euro must align with both the objectives and powers conferred on the Eurosystem. This article argues that the ECB will no longer be able to deliver on its mandate if the use of cash continues to decline. Accordingly, the issuance of a digital euro would address two key policy objectives.[9] First, a digital euro would help satisfy the continuing need for a form of public money that exhibits the unique features of cash (section 2.1). By providing costless access to a simple, universally accepted, credit risk-free, and trusted means of payment and store of value, the euro represents an important public good for European citizens.[10] Second, a digital euro would offer an alternative to the use of "stablecoins" for European retail payments, thereby forestalling massive migration into private digital currencies. By complementing (and eventually assuming) the anchor function of tangible euro cash, a digital euro would help safeguard the monetary transmission mechanism and thus the ECB's control over monetary policy (section 2.2).[11]

The issuance of a digital euro would involve numerous fundamental economic, technological, and legal choices and challenges, not all of which can be discussed here. This article focuses on the pivotal question of whether the ECB and the National Central Banks (NCBs) of the euro area, as the authorities in charge of issuing the euro, are empowered to issue a digital euro under the EU's existing legal framework. While other legal foundations may be explored as a basis for the issuance of a digital euro,[12] the analysis undertaken here is limited to interpreting Article 128 TFEU[13] and Article 16

7. In the interest of simplicity, this article uses the term "Eurosystem" to refer to the ECB and National Central Banks (NCBs) of the euro area collectively, while acknowledging that only the ECB and the NCBs possess legal personality and can thus be bearers of functions and powers.

8. Art. 5(1) and (2) TEU, O.J. 2012, C 326/13.

9. For an in-depth analysis of these objectives, see Zellweger-Gutknecht, Geva and Grünewald, "Digital euro, monetary objects and price stability – A legal analysis" *Journal of Financial Regulation* (forthcoming).

10. See ECB Report cited *supra* note 5, at p. 10; Panetta, "We must be prepared to issue a digital euro", blog post (2 Oct. 2020), <www.ecb.europa.eu/press/blog/date/2020/html/ecb.blog201002~12ab1c06b5.en.html>, (all websites last visited 12 March 2021).

11. ECB Report cited *supra* note 5, at p. 12. See also G7 Working Group on Stablecoins: Investigating the impact of global stablecoins (BIS, Oct. 2019), at 15–16.

12. For the ECB/Eurosystem, this includes Art. 127 TFEU and Art. 20 of the ESCB Statute. See ECB Report cited *supra* note 5, at p. 24; Omlor and Birne, "Digitales Zentralbankgeld im Euroraum", (2020) *Recht Digital*, 1–10, at 5.

13. Consolidated version of the Treaty on the Functioning of the European Union, O.J. 2012, C 326/47.

of the European System of Central Banks (ESCB) Statute.[14] The discussion thus naturally centres around a digital euro in the form of immaterial tokens recorded on the liability side of central banks' balance sheets and circulating in the economy through the transfer of these tokens (i.e. a token-based digital euro).[15]

The remainder of this article proceeds as follows: section 2 makes the case for powers of the Eurosystem to issue a digital euro under its public money issue function according to Article 128(1) TFEU and Article 16 ESCB Statute on the basis of Treaty interpretation. Section 3 argues that these powers of the Eurosystem are necessarily exclusive and must prevail over the competence of Member States to issue tangible coins in accordance with Article 128(2) TFEU. The scope of the Eurosystem's issuance powers, their delegability and potential interferences with commercial banks' fundamental rights, and the principle of an open market economy are addressed in Section 4. Section 5 explores whether a digital euro can and should be legal tender, offering the same benefits and degree of trust associated with tangible euro cash. Section 6 concludes the article.

2. The Eurosystem as the issuer of tangible and digital public money

Article 128(1) TFEU and Article 16 ESCB Statute confer upon the ECB the function and power to authorize the issuance of euro banknotes within the EU. Both the ECB and the NCBs of the euro area Member States are entitled to issue euro banknotes. While the competence to issue banknotes was elevated to the EU level, the euro area Member States have remained the legal issuers of euro coins according to Article 128(2) TFEU. The volume of coins issued by euro area Member States, however, is subject to approval by the ECB.

This section explores whether Article 128(1) TFEU and Article 16 ESCB Statute provide sufficient legal basis for the Eurosystem to issue (or for the

14. Statute of the European System of Central Banks (ESCB) and of the ECB, Protocol (No. 4) on the Statute of the European System of Central Banks and of the European Central Bank, O.J. 2016, C 202/230.

15. On the distinction between token-based (or value-based) and account-based models of central bank digital currency, without advocating particularly for either of them, see e.g. ECB Report cited *supra* note 5, at pp. 29–30. See further Bossu et al., op. cit. *supra* note 4, in particular at 9, 12–13. Our assumption is that an account-based digital euro may be useful for wholesale purposes but would almost certainly create confusion among retail users, thus endangering the singleness of the euro. For further details, see Geva, Grünewald and Zellweger-Gutknecht, "The e-banknote as a 'banknote': A monetary law interpreted", *Oxford Journal of Legal Studies* (forthcoming). Published as advance article, at <academic.oup.com/ojls/advance-article/doi/10.1093/ojls/gqab019/6284236>.

ECB to authorize the issuance of) a digital euro. It is argued that Article 128(1) TFEU and Article 16 ESCB Statute provide for both a *source* of competence for the Eurosystem to issue a digital euro and a *limitation* to that competence. Article 128(1) TFEU and Article 16 ESCB Statute provide for a source of competence in that they confer upon the Eurosystem the power to issue banknotes, which may be either tangible or digital in format. However, the provisions limit the issuance of digital banknotes to a functional design that mimics tangible banknotes. The argument proceeds from textual via historic and teleological (2.1) to systematic reasons (2.2).

2.1. *Digital euro as "banknotes"*

The wording of Article 128(1) TFEU and Article 16 ESCB Statute does not preclude the issuance of euro banknotes in media other than paper. Both provisions mention "banknotes" without specifying the material or format in which banknotes are to be issued. "Issuing" essentially refers to the appearance as a liability on the central bank's balance sheet and does not *per se* imply that the euro must necessarily be expressed in tangible banknotes.

The drafting history of Article 128(1) TFEU and Article 16 ESCB Statute supports this understanding. As the Maastricht Treaty came into force before the internet had begun to have an impact on economic and social interactions on a massive scale and the first forms of e-money[16] had evolved, it is unsurprising that working groups tasked with the future issuance of euro banknotes had paper-based banknotes in mind.[17] The available negotiation records, however, reveal no evidence of a qualified silence on the part of the Treaty drafters in the sense that they intended to exclude media other than paper for banknotes covered by Article 128(1) TFEU. The fact that the emergence of the internet and private digital currencies (such as Liberty Reserve in 2006[18]) did not lead to an amendment of the provision in the

16. According to Art. 2(2) of Directive 2009/110/EC of the European Parliament and of the Council on the taking up, pursuit, and prudential supervision of the business of electronic money institutions, O.J. 2009, L 267/7 (E-Money Directive), "electronic money" or "e-money" refers to "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 Art. 4 of Directive 2007/64/EC, and which is accepted by a natural or legal person other than the electronic money issuer".

17. See e.g. ECB, "Report on the legal protection of banknotes in the EU Member States" (9 Nov. 1999), at p. 41 ("authorized *paper* money"); see also p. 5 with reference to a "Working Group on *Printing* and Issuing a European Banknote (BNWG)" (emphasis added).

18. See <www.coindesk.com/company/liberty-reserve>.

Treaties of Amsterdam (1997), Nice (2001), and Lisbon (2007), does not indicate any such qualified silence. At the time, these private digital currencies were still in their infancy. A discussion of their effects on central banking and the prospect of introducing central bank digital currencies that would be made available to the general public began only about a decade after the signing of the Treaty of Lisbon.[19] While technology may have facilitated the issuance of central bank digital currency already at the time of these Treaty amendments, the evidence suggests that the drafters simply did not have digital euro banknotes on their radars.[20] Consequently, they neither explicitly provided for the issuance of digital euro banknotes nor explicitly – even silently – excluded them from the scope of Article 128(1) TFEU and Article 16 ESCB Statute.

Thus, the wording and drafting history of the provisions reveal no compelling reasons that would *exclude* the issuance of digital banknotes. Article 128(1) TFEU and Article 16 ESCB Statute are drafted in a relatively abstract and open manner and lend themselves to a broad reading as far as the format of banknote issuance is concerned. However, that alone does not *positively empower* the Eurosystem to issue a digital euro. Positive empowerment depends on a purposive reading of Article 128(1) TFEU and Article 16 ESCB Statute that is consistent with the dynamic and evolving nature of the Monetary Union and the ECB more specifically.[21] It takes into account the evolution of the concept of the banknote, of which the transition from paper to digital merely constitutes the latest in a sequence of evolutionary steps. The media in which banknotes are issued have evolved in parallel with technological development and will do so again with the move to a digital format. In the digital age, the requirement for banknotes to be "written" to give them permanence may just as well be satisfied by a digital

19. The Bank of England led the way in initiating this global discussion. See e.g. Bank of England, "One bank research agenda", Discussion Paper (Feb. 2015), at 31 ("Why might central banks issue digital currencies?"); Cleland, "Digital future for Sterling: Assessing the implications" (Bank of England, 5 July 2017).

20. Similarly, Banque de France Report cited *supra* note 4, at p. 31. The present authors refute, however, the assumption in this report that Art. 16(2) ESCB Statute refers to the issuance of physical banknotes as an "existing practice" that needs to be respected "as far as possible". The drafting history of the ESCB Statute reveals that this provision was narrowly targeted at existing practices regarding the issue and *purely graphic* design of banknotes in the UK (see footnote 29).

21. The ECJ frequently uses teleological interpretation. In *CILFIT*, it affirmed that "… every provision of [EU] law must be placed in its context and interpreted in the light of the provisions of [EU] law as a whole, regard being had to the objectives thereof and to *its state of evolution at the date on which the provision in question is to be applied*" (emphasis added). Case C-283/ 81, *CILFIT* v. *Ministero della Sanità*, EU:C:1982:335, para 20.

record.[22] This is not revolutionary, nor does it encroach conceptually on the banknote's defining features.[23]

A purposive reading of Article 128(1) TFEU and Article 16 ESCB Statute suggests further that the tangible format of banknotes is of secondary importance and that the defining feature of banknotes instead relates to their *function*. Banknotes are intended to serve as a credit risk-free and trusted means of payment and store of value that is accessible to the general public. Accordingly, Article 128(1) TFEU and Article 16 ESCB Statute placed the Eurosystem in charge of publicly issuing such retail money. The medium of that issuance, however, may adapt to (unanticipated) changes in technology and user demand.

2.2. *The digital euro as a precondition of monetary policy*

At the same time, it is this defining function of banknotes that *limits* the Eurosystem's powers to issue a digital euro on the basis of Article 128(1) TFEU and Article 16 ESCB Statute. Their intangible nature renders digital banknotes significantly more versatile than paper banknotes and allows for their use to serve other functions, including functions that may as yet remain unanticipated. *Technically* speaking, digital banknotes could open up new horizons in the conduct of monetary policy.[24] They could be designed in a way that would allow the ECB to influence the public's demand, including by paying or collecting interest on digital banknotes and by imposing limits on their holding or use.[25] This is expected to improve the pass-through of policy rate changes.[26] Moreover, negative interest on digital banknotes could provide monetary stimulus in extreme circumstances. If cash were simultaneously

22. For an in-depth analysis see Geva, Grünewald and Zellweger-Gutknecht, op cit. *supra* note 15.

23. Apparently dissenting, Bossu et al., op. cit. *supra* note 4, at 16, who distinguish – somewhat artificially – between "currency" on the one hand and "banknotes" and "coins" on the other without considering a broad interpretation of the latter terms and a teleological reading of the "writing" requirement.

24. See ECB Report cited *supra* note 5, at pp. 12–13, for a "thought experiment" by the ECB in that direction.

25. These limits could be imposed on a per person or per transaction basis or overall and as an alternative to or in combination with interest.

26. E.g. Armelius, Boel, Clausen and Nessén, "The e-krona and the macroeconomy" in Special issue on the e-krona, (2018) *Sveriges Riksbank Economic Review*, 43–65, at 52. See also BIS CPMI/MC Report cited *supra* note 4, at 10–12.

abolished or made costly, interest-bearing digital banknotes could serve to alleviate the effective lower bound constraint.[27,28]

However, designing digital euro banknotes as an instrument of monetary policy, while technically feasible, is *legally* inadmissible on the basis of Article 128(1) TFEU and Article 16 ESCB Statute. While these provisions allow for the issuance of digital banknotes by the Eurosystem in principle, they restrict the use of digital banknotes to the functions of tangible cash. In other words, to be covered by Article 128(1) TFEU and Article 16 ESCB Statute, digital banknotes must be designed as a functional equivalent to tangible banknotes.[29] Accordingly, their functions must be limited to those of a means of payment and a store of value, excluding their use as a monetary policy instrument.

This reading is supported by a systematic interpretation of Article 128(1) TFEU and Article 16 ESCB Statute. Both the Treaty and the ESCB Statute mention banknote issuance separately from the basic tasks of monetary policy.[30] In earlier drafts of the Maastricht Treaty, banknote issuance was also listed as a basic task of the ESCB (in addition to the provision on competence)

27. The effective lower bound (ELB) refers to the floor for nominal interest rates. It lies a few decimal points below zero as it takes into account the costs incurred by holding non-interest-bearing cash (rather than reserves), including expenses for storage, insurance, transport, etc.

28. Nabilou, "Testing the waters of the Rubicon: The European Central Bank and central bank digital currencies", (2020) *Journal of Banking Regulation*, 299–314, at 309–310; Meaning, Dyson, Barker and Clayton, "Broadening narrow money: Monetary policy with a central bank digital currency", Bank of England Staff Working Paper No. 724 (May 2018); Nessén, Sellin and Asberg, "The implications of an e-krona for the Riksbank's operational framework for implementing monetary policy" in Special issue on the e-krona, cited *supra* note 26, 29–42, at 36; Agarwal and Kimball, "Breaking through the Zero Lower Bound", IMF Working Paper WP/15/224 (23 Oct. 2015).

29. Reports issued by De Nederlandsche Bank and the Banque de France have arrived at similar conclusions. See Wierts and Boven, "Central bank digital currency – Objectives, preconditions and design choices", 20-21 *De Nederlandsche Bank Occasional Studies* (April 2020), at 28; Banque de France Report cited *supra* note 4, at p. 31. These reports base their argumentation on Art. 16(2) ESCB Statute, which states "The ECB shall respect as far as possible existing practices regarding the issue and design of banknotes." However, this provision should be considered in the context of its specific historical background. It was added to satisfy the British, who wanted to retain the right for some commercial banks in Scotland and Northern Ireland to issue banknotes and to include the portrait of Queen Elizabeth II on the national side of euro banknotes issued by the Bank of England should the UK enter Stage Three of the EMU. See Van den Berg, *The Making of the Statute of the European System of Central Banks – An Application of Checks and Balances* (Rozenberg Publishers, 2005), at pp. 326, 333, 339–341. With Brexit, this provision has obviously lost its original relevance.

30. See Art. 127(2) TFEU; Art. 3.1 ESCB Statute. The fact that Art. 16 ESCB Statute is placed under Chapter III (Organisation of the ESCB) instead of Chapter IV (Monetary Functions and Operations of the ESCB), however, is the result of an oversight that was never corrected. See Van den Berg, op. cit. *supra* note 29, at p. 338.

but was subsequently removed from that list prior to the adoption of the Treaty.[31] This drafting process evidences the special (legal) character of banknote issuance: while it is a fundamental task of the Eurosystem, banknote issuance does not directly pertain to the tasks listed in Article 127(2) TFEU and Article 3.1. ESCB Statute. Rather, it constitutes a *precondition* for the fulfilment of these tasks. For this reason, the decision to 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 are a logical precondition for monetary policy, but were never intended to serve as an instrument of that policy.

It follows naturally from a systematic reading of Article 128(1) TFEU and Article 16 ESCB Statute that banknote issuance is not merely a right that is attributed to the Eurosystem but is accompanied by a duty to utilize that right, which cannot be fully waived or delegated. Monetary policy transmission within the Eurosystem depends on the extensive utilization of monetary objects denominated in euros, such as (tangible or digital) banknotes and deposits. Migration out of the euro due to an increasing switch to non-euro-denominated private digital currencies would significantly weaken the monetary policy transmission mechanism and thus the ECB's ability to deliver on its mandate.[32] Deposits and other private monies (even if denominated in euros) are insufficient to ensure smooth monetary policy transmission.[33] As private debts, they are associated with a default risk of the private issuer. The fungibility of deposits (and other private monies) is assured, because they are convertible on demand into banknotes at par value. At the same time, the availability of banknotes has a disciplining effect on banks, in that badly managed banks must expect depositors to withdraw their deposits. A publicly issued, credit risk-free money is thus needed as an anchor to maintain the quality of deposits, the uniformity of money, as well as the stability of the banking system in the medium to long term.[34]

Accordingly, the Eurosystem cannot discontinue the issuance of cash on its own initiative.[35] Neither can it allow cash to disappear naturally (i.e. as a result

31. Van den Berg, op. cit. *supra* note 29, at pp. 332–333.

32. See ECB Report cited *supra* note 5, at p. 12.

33. Dissenting Hofmann, "The changing concept of money: A threat to the monetary system or an opportunity for the financial sector?", 21 EBOR (2020), 37–68, at 58–65.

34. For an in-depth account of that argument see Zellweger-Gutknecht, Geva and Grünewald, op. cit. *supra* note 9.

35. See also Opinion of A.G. Pitruzzella in Joined Cases C-422 & 423/19, *Johannes Dietrich and Norbert Häring* v. *Hessischer Rundfunk*, EU:C:2020:756, para 95

of changing demand).[36] As the use of cash dwindles, the ECB loses a fundamental basis for its monetary policy and thus risks becoming unable to deliver on its mandate. The issuance of a digital euro might then be necessary to replace the functions of cash and maintain an essential precondition of its mandate. While a significant and persistent waning of cash may appear to be a development in a distant future, the Eurosystem has a duty to act in anticipation of that point. Private initiatives will undoubtedly continue to seek to fill the void by issuing digital currencies. Network effects – that is, the fact that a growing number of users of a digital currency increases that digital currency's utility for each new and existing user – require central banks to be among the first movers.

3. The Eurosystem's exclusive competence to issue a digital euro

Based on Article 128(1) TFEU and Article 16 ESCB Statute, the Eurosystem is competent to issue digital banknotes to the extent that these banknotes exhibit a cash-like functional design. What remains to be clarified is whether the Eurosystem is *exclusively* competent to issue a digital euro. As Member States have retained their competence to issue euro coins according to Article 128(2) TFEU, they arguably retain the power to issue some sort of "digital euro coins" alongside the Eurosystem's issuance of "digital euro banknotes".[37] In practice, the issue may present little cause for concern since the volume of coin issuance by Member States is subject to ECB authorization. The ECB could therefore control the volume of digital euros authorized for issuance under Article 128(2) TFEU. However, there are more fundamental reasons to assume that the European competence to issue a digital euro must prevail.

The delineation of competences assigned to the European level for (tangible) banknotes on the one hand and to the national level for (tangible) coins on the other is based on the distinction between major cash in the form of banknotes[38] and minor cash in the form of small-denomination coins.[39] Only the issuance of minor cash has remained a national competence, subject

("[Article 128(1) TFEU] guarantees the very existence of euro banknotes at a constitutional level, which suggests that their complete abolition would be contrary to EU law.") and para 127.

36. See also Siekmann, "Monetary aspects of the Euro as single European currency – A German perspective" in Freitag and Omlor (Eds.), *The Euro as Legal Tender: A Comparative Approach to a Uniform Concept* (De Gruyter, 2020), pp. 1–49, at p. 41 (*lex specialis*).

37. This scenario appears at least not to be excluded in the Banque de France Report cited *supra* note 4, at p. 31.

38. Euro banknotes are issued in six denominations ranging from 5 euros to 200 euros. The issuance of EUR 500 banknotes ceased in 2019.

39. Euro coins are issued in eight denominations ranging from 1 cent to 2 euros.

to the ECB's authorization of the coin issuance volume. However, the splitting of jurisdiction between banknotes and coins is rooted in historical circumstances that do not manifest themselves in the digital space. Under some technological designs, the digital euro will be stored, transferred, and accounted for in lump sums, just like book money. Similar to a bank account, users will simply control the amount and the digital wallet will show no separable "20 cent" or "five euro piece" of the digital euro. Hence, there can be no distinction based on smaller or larger denominations with respect to the digital euro. Other technological designs allow for users to split tokens in coins of different denominations. However, even under such designs, it is unnecessary, and indeed complex, to segregate the powers of the Eurosystem and those of the Member States' governments.

In light of the need to preserve the singleness of the euro, the Eurosystem's competence to issue a digital euro is necessarily exclusive. It must prevail over the residual competence of Member States to issue coins, barring the latter from issuing a "parallel digital euro" on the basis of Article 128(2) TFEU. The reasons are at least threefold. First, on a fundamental level, national competence cannot provide for a single digital euro. For this very reason, Member States effectively transferred monetary sovereignty to the EU level and put the independent ECB/Eurosystem in charge of the issuance of the single currency, with the limited exception of (tangible) coins, and of implementing a single monetary policy in the euro area.[40] Second, allowing Member States to issue a limited volume of "their own digital euro" would imply a parallel competence[41] at the European and national levels to issue essentially the same thing. How might the digital euro issued by Member State X be distinguished from the digital euro issued by Member State Y and the digital euro issued by the Eurosystem? Not only would it make little sense and be considerably costly to divide the digitalization of payments between the Eurosystem and the Member States, but it may also create confusion among users and threaten the singleness of the euro. Third, while the function of banknotes is to provide a credit risk-free and trusted means of payment and store of value accessible to the general public, coins are limited to complementing this function in the form of minor cash in small denominations. The digital euro is thus much closer to the concept of

40. On monetary sovereignty and the euro, see Proctor, *Mann on the Legal Aspects of Money*, 7th ed. (OUP, 2012), Ch. 31; for a conceptualization of monetary sovereignty, see Zimmermann, "The concept of monetary sovereignty revisited", 24 EJIL (2013), 797–818, and Zimmermann, *A Contemporary Concept of Monetary Sovereignty* (OUP, 2013).

41. Parallel competences cannot exist in the logic of the EU's legal order. Specifically, they differ from shared competences according to Art. 4 TFEU, whereby Member States exercise their own competence only where the EU does not exercise or has decided not to exercise its own competence.

"banknote" as set out in Article 128(1) TFEU than to the concept of "coin" according to Article 128(2) TFEU.

The drafting history of the Maastricht Treaty indicates that Article 128(2) TFEU was never intended to control Article 128(1) TFEU. On the contrary, it was intended to leave in the hands of the Member States only powers over subsidiary objects of payment,[42] which are not needed in the case of the digital euro. Originally set to also become a supranational competence, the competence to issue coins was "returned" to Member States in the course of the Maastricht negotiations. Coin issuance had not typically been in the hands of the NCBs at the time of the euro's adoption, but had rather been a power of governments or bodies close to them (e.g. a mint). The governors saw no cogent reason to break with this tradition. A majority in the Intergovernmental Conference (IGC) agreed that coins were "of minor monetary importance" and that it would suffice for the ECB to control the volume of coin issuance to ensure conformity with its primary objective of price stability.[43]

Member States' interests in maintaining coin issuance as a national competence were primarily sentimental and fiscal in nature. Since a digital euro would by definition lack a "national side" – like tangible coins' display of royalty, national heroes, and historical monuments – the sentimental interests would be largely neglected. Member States' fiscal interests, by contrast, would be affected by a loss of seigniorage, achieved today by the net emission of EUR 900 million p.a. less costs,[44] to the extent that a digital euro would substitute tangible coins. To mitigate the fiscal impact, the ECB/NCBs could compensate Member States for their lost seigniorage.[45]

4. Scope of the Eurosystem's issuance powers

The competence to issue banknotes – whether tangible or digital – is a power in its own right. In particular, the issuance of digital banknotes by the Eurosystem would not require any prior legislative act authorizing the Eurosystem to utilize its powers. Article 133 TFEU states the following:

42. The fact that a limit of acceptance (50 pieces) exists only for coins attests to their subsidiary nature. See Art. 11, third sentence, Council Regulation (EC) 974/98 on the introduction of the euro, O.J. 1998, L 139/1 ("2nd Euro-Regulation").

43. Van den Berg, op. cit. *supra* note 29, at p. 338.

44. ECB Statistical Data Warehouse, available at <sdw.ecb.europa.eu/reports.do?node=1000004114>.

45. Each NCB could credit the relevant Member State's account with digital euros up to the value of coins no longer authorized for issuance by the ECB every year. The amount would have to be set for the future based on the (overall quite linear) development to date.

> *"Without prejudice to the powers of the European Central Bank*, the European Parliament and the Council, acting in accordance with the ordinary legislative procedure, shall lay down the measures necessary for the use of the euro as the single currency. Such measures shall be adopted after consultation of the European Central Bank." (emphasis added).

Article 133 TFEU provides for the legislative competence at EU level to issue secondary law acts to address certain issues pertaining to the *use* of the euro. These are ancillary acts of legislation that cannot and must not interfere with the Treaty powers and independence[46] granted to the ECB/Eurosystem. The adoption of the euro necessitated the establishment of a detailed legal framework to facilitate the substitution of national currencies and to address practical matters arising from the introduction of a single currency.[47] Moreover, as Member States retained the competence to issue euro coins and only the power over the volume of coin issuance was transferred to the ECB, it fell to the EU legislature to regulate the denominations and technical specifications of euro coins and ensure uniformity for the euro area.[48]

4.1. *Direct and incidental powers and their delegability*

By contrast, all matters regarding the design of euro banknotes, including denominations, specifications, and security, relate to powers *incidental* to the issuance function and power according to Article 128(1) TFEU and Article 16 ESCB Statute, and are therefore laid down in ECB decisions.[49] The

46. Arts. 130 and 282(3) TFEU; Art. 7 ESCB Statute.

47. See Council Regulation (EC) 1103/97 on certain provisions relating to the introduction of the euro, O.J. 1997, L 300/1 ("1st Euro-Regulation"), pertaining to the continuity of contracts and ECU-denominated obligations as well as conversion and rounding; 2nd Euro-Regulation (974/98), introducing euro banknotes and coins over a transitional period and regulating the substitution of national currencies; Council Regulation (EC) 2866/98 on the conversion rates between the euro and the currencies of the Member States adopting the euro, O.J. 1998, L 359/1, determining the conversion rates at which, up to today, banknotes and coins denominated in national currencies can be converted into euro; Council Regulation (EC) 1338/2001 laying down measures necessary for the protection of the euro against counterfeiting, O.J. 2001, L 181/6, which applies to both banknotes and coins.

48. See Council Regulation (EU) 729/2014 on denominations and technical specifications of euro coins intended for circulation (Recast), O.J. 2014, L 194/1. This legislative competence derives from Art. 128(2) TFEU.

49. Decisions ECB/2013/10 and ECB/2019/9 regarding denominations, specifications, reproduction, exchange and withdrawal; Decisions ECB/2008/3, ECB/2010/14 and ECB/2012/19 regarding security. Art. 10 2nd Euro-Regulation (974/98) is purely declaratory in nature, merely repeating the legal tender status assigned to euro banknotes by primary law (Art. 128(1) TFEU and Art. 16 ESCB Statute).

production and distribution of euro banknotes also pertain to incidental powers. Both are undertaken by the euro area NCBs, while the ECB oversees the NCBs' activities and fosters harmonization of cash services within the euro area.

The direct and incidental powers of the ECB/Eurosystem derived from Article 128(1) TFEU and Article 16 ESCB Statute with a view to the digital euro mirror those applicable for tangible euro banknotes. They include the decision on the digital euro's technological design and the modalities of its issuance, distribution, and transfer.[50] While the former concerns questions such as whether or not distributed-ledger technology[51] should be used, as well as the digital euro's privacy and safety features, the latter determines the way in which the digital euro is made available to the public for its further use as a means of payment and store of value.

The existence of these direct and incidental powers does not necessarily imply that all related tasks must and will be fully conducted by the ECB/Eurosystem itself. In many instances, the involvement of private market participants in implementing these tasks on a competitive basis will ensure innovative and efficient solutions, thereby enhancing the attractiveness of the digital euro. This raises the question as to which of the ECB's/Eurosystem's direct and incidental powers in relation to the digital euro are delegable and which are not.[52]

In line with the established ECJ case law on Treaty-imposed restrictions regarding the delegability of powers by EU institutions to agencies or private legal persons,[53] the distinction between decision-making and implementation

50. For more details on both aspects, see Geva, Grünewald and Zellweger-Gutknecht, op. cit. *supra* note 15.

51. Distributed-ledger technology (DLT) refers to a protocol that allows for the secure functioning of a digital database using cryptography and is shared by multiple participants (nodes). Its main novelty is that it eliminates the need for a central authority to guard against manipulations.

52. The following assumes that the digital euro would have legal tender status. See *infra* section 5 on legal tender.

53. In *Meroni*, the ECJ ruled, in particular, that delegations of power were only legitimate if they were necessary for the performance of the task at hand and that any delegation of power could only relate to clearly defined executive powers, the use of which must be subject to the supervision of the delegating institution (in that case, the Commission). However, delegated powers giving agencies or private legal persons "a degree of latitude which implies a wide margin of discretion . . . cannot be considered as compatible with the requirements of the Treaty". Case 9/56, *Meroni & Co.* v. *High Authority*, EU:C:1958:7, p. 154. According to *Romano*, agencies must not be empowered to adopt normative measures, i.e. "acts having the force of law". Case 98/80, *Giuseppe Romano* v. *Institut national d'assurance maladie-invalidité*, EU:C:1981:104, para 20. In *ESMA-short selling*, the ECJ clarified that EU administrative agencies can be the recipients of limited executive discretionary powers under the current Treaties. Case C-270/12, *United Kingdom* v. *Parliament and Council*, EU:C:2014:18.

may serve as a key point of reference in this regard. This implies that strategy and the definition of all essential features of the core digital euro infrastructure cannot be delegated. Clearly defined tasks that merely execute the decisions taken or utilize the core infrastructure to facilitate the use of the digital euro, by contrast, may be left to the market.[54] This division of labour takes into account that market participants have always supported the Eurosystem in executing its tasks related to tangible banknotes. While authorization, issuance, and design of tangible banknotes remain within the remit of the Eurosystem, production and distribution are to some extent outsourced to external manufacturers and financial intermediaries. Euro banknotes are printed by eleven high-security printing works in Europe and then distributed among the various NCBs. A pooling arrangement and common quality management system ensure a uniform production standard for all euro banknotes regardless of where they are printed.[55] Distribution is realized through the cash distribution systems (encompassing distribution units, vaults etc.) of the NCBs under the surveillance of the ECB. The NCBs distribute banknotes mainly via the banking system and partly via retail trade.[56]

As for the digital euro, its design would include the definition of the core infrastructure's features and would thus remain non-delegable as a task of public authority. Its production, on the other hand, would concern the operation of this infrastructure and could, as an implementing task, be delegated to private market participants. Similarly, market participants could be key in designing applications for the distribution and storage/transfer of the digital euro – a task that clearly concerns implementation. Even in these cases, however, delegability will hinge on the Eurosystem's definition of standards for and supervision of the execution of clearly defined tasks by market participants.

54. This argument is similar to the ECB's approach, according to which the "back-end infrastructure" should ultimately be controlled by the Eurosystem, whereas "end-user access solutions" could be left to the market. See ECB Report cited *supra* note 5, at pp. 36–44.

55. See <www.ecb.europa.eu/euro/intro/production/html/index.en.html>.

56. See <www.ecb.europa.eu/euro/intro/issuance/html/index.en.html>.

	Authorization	**Issuance**	**Design**	**Production**	**Distribution**	**Storage/ Transfer**
Banknotes	ECB	ECB (8%) NCBs (92%)[57,58]	ECB	ECB/ NCBs[59] → Market	NCBs only → Market	None (users only)
Coins	ECB	Member States	EU legislature (Member States)	Member States (mint)	Member States → NCBs (→ Market)	None (users only)
Digital euro	ECB	ECB/ NCBs	ECB	delegation possible (running the infrastructure)	delegation possible (applications designed by the market)	delegation possible (applications designed by the market)

Table 1: Overview competences and delegability (assuming legal tender status)

While NCBs utilize supervised intermediaries, in particular for the distribution of tangible banknotes, delegation is expected to play a significantly greater role with respect to the digital euro. Indeed, from an operational point of view, preference should be given to models in which the Eurosystem merely provides the core infrastructure and a minimum necessary functionality for payments. On the basis of this core infrastructure, private sector firms – among them necessarily banks – could connect and offer customer-facing services and build additional functionality.[60] While the Eurosystem would ensure security, resilience, and interoperability, the private sector could inject further innovation into its services within a competitive

57. Decisions ECB/2010/29 and ECB/2014/49: The issuance quota – i.e. the percentage share of euro banknotes to be issued by the ECB – is determined by the Governing Council. The liabilities in respect of the issue of the remaining value of euro banknotes in circulation are allocated in accordance with the share of each NCB in the paid-up capital of the ECB. The 8% was introduced by Decision ECB/2001/15. Previously, only the NCBs were issuers.

58. Euro banknotes are circulated to meet a demand, while the issuance quota regulates the distribution of the related issuance by creating intra-Eurosystem claims. The actual circulation of euro banknotes in a given Member State may thus be higher or lower than the issuance quota allocated to that Member State's NCB.

59. See e.g. Decision ECB/2020/24 regarding accreditation for manufacturers of euro-secure items and euro items.

60. See ECB Report cited *supra* note 5, at p. 20 ("cooperation with market participants"). See also the model proposed in Bank of England Discussion Paper cited *supra* note 4, at 25–26.

environment. Moreover, compliance with anti-money laundering and related regulatory restrictions could rely on existing systems and processes in place at commercial banks and other intermediaries.

A further novelty implied by the digital euro is that delegation may concern firms that are outside the Eurosystem's direct or indirect supervisory remit, such as telecommunication firms that design and provide cell phone applications for the distribution, transfer, and storage of the digital euro. To ensure that the Eurosystem retains its responsibility for, and control over, the execution of tasks incidental to the issuance of a digital euro, the ECB would be obliged to lay out general requirements for delegees and to approve the use of delegees in individual cases.[61]

4.2. *Boundaries to the Eurosystem's powers: Fundamental rights and the principle of an open market economy*

Boundaries to the Eurosystem's powers to issue a digital euro could potentially emerge from the fundamental right to conduct a business as enshrined in Article 16 of the Charter[62] and the principle of an open market economy with free competition.[63] Depending on its technical design and the financial conditions attached to it, the digital euro has the potential to change – possibly dramatically – the conditions under which commercial banks traditionally conduct their business. This raises questions as to what the legitimate expectations of banks are and, more generally, how large the central bank's footprint in financial intermediation should be.

The economics literature offers several insights into the potential consequences that the issuance of a digital euro might have for commercial banks (and other financial entities[64]).[65] One major fear relates to the risk of disintermediation. The issuance of a digital euro could have the (unintended) side effect of creating competition with commercial bank deposits,[66] as households and companies may consider the digital euro an alternative to

61. Alternatively, the Eurosystem could insist on maintaining a supervised financial intermediary as primary contact.

62. Charter of Fundamental Rights of the European Union, O.J. 2012, C 326/391.

63. See Arts. 119(2) and 127(1) TFEU; Art. 2 ESCB Statute.

64. E.g. payment services providers, money-transmission businesses, and other entities operating in the markets for stored-value products.

65. For an instructive analysis, see Juks, "When a central bank digital currency meets private money: Effects of an e-krona on banks" in Special issue on the e-krona, op. cit. *supra* note 26, 79–99.

66. This effect is less likely/pronounced for a token-based digital euro than for an account-based digital euro, but nevertheless warrants some attention.

deposits rather than to cash.[67] Faced with the risk of outflowing retail deposits, commercial banks would encounter higher funding costs – either by offering a better value proposition to their depositors[68] or by turning to more expensive (and potentially less stable) wholesale funding markets.[69] Moreover, they would be forced to adapt their business models to the "new reality" of a diminished deposit base, with still uncertain effects on the economy at large.[70] Arguably, however, the greatest risk to financial stability stems from the fact that a digital euro would facilitate a flight from commercial bank deposits to the safety of central bank money in a distressed market environment ("digital runs").[71]

While digital runs pose a real risk that must be appropriately managed, disintermediation under normal market conditions may primarily result from the removal of overly favourable refinancing conditions for banks to date. In fact, the availability of a digital credit risk-free and trusted money may enable rather than interfere with a competitive level playing field, benefitting depositors in jurisdictions where banks use their market power to keep interest rates paid on deposits depressed and removing (more or less hidden) subsidies in their funding.[72] Moreover, the introduction of a digital euro may open up new business avenues for commercial banks in the development and offering of customer-facing services and additional functionality for payments in digital euros.[73]

67. See e.g. Bindseil, "Tiered CBDC and the financial system", ECB Working Paper Series No. 2351 (Jan. 2020), at 9–14; BIS CPMI/MC Report cited *supra* note 4, at pp. 14–16; Wierts and Boven, op. cit. *supra* note 29, at 19.

68. That is, improving services or paying higher interest rates or both. See e.g. Adrian and Mancini-Griffoli, "The rise of digital money", IMF Fintech Note/19/01 (July 2019), at 10; Hofmann, op. cit. *supra* note 33, at 61; Berentsen and Schär, "The case for central bank electronic money and the non-case for central bank cryptocurrencies", (2018) *Fed Reserve Bank St. Louis Review*, 97–106, at 101–102; Juks, op. cit. *supra* note 65, at 90–91 (under the assumption of an interest-bearing e-krona, however).

69. Nabilou, op. cit. *supra* note 28, at 309 (with further references).

70. BIS CPMI/MC Report cited *supra* note 4, at pp. 15–16. For example, banks' ability to extend loans to the real economy may be compromised; see Nabilou, op. cit. *supra* note 28, at 309. Juks, op. cit. *supra* note 65, at 68, does not anticipate a major risk of this happening in normal market conditions.

71. Even in the presence of deposit insurance, a digital euro may lead to bank runs at "unprecedented speed and scale"; BIS CPMI/MC Report cited *supra* note 4, at p. 16. See also Nabilou, op. cit. *supra* note 28, at 309 (with further references).

72. Similarly, Andolfatto, "Assessing the impact of central bank digital currency on private banks", Federal Reserve Bank of St. Louis Working Paper No. 2018-026D (Oct. 2018). A fundamental analysis of banks' market power *vis-à-vis* retail depositors is given in Drechsler, Savov and Schnabl, "Banking on deposits: Maturity transformation without interest rate risk", NBER Working Papers 24582 (May 2018), at 34–38.

73. Bank of Canada Report cited *supra* note 4, section 4, highlights the need for commercial banks to adapt to a more competitive environment owing to payment system modernization,

Nevertheless, the introduction of a digital euro could force commercial banks (at least *de facto*) to accept a decrease in market power or to implement measures that may entail costs and loss of income for them. This may impair the freedom to conduct business that commercial banks enjoy under Article 16 of the Charter. The ECB, like any other institution of the EU, is bound to observe fundamental rights when applying the Treaties and executing its tasks. In particular, it must ensure that any measure that it implements is justified in light of the legitimate goals that it pursues and proportionate to the potentially affected rights of third parties.

In many ways, the cash-like design of a digital euro already implies the mildest means by which the dwindling of cash and its negative effects on monetary stability may be counteracted. Such a digital euro may create competition for payment accounts held by the public at commercial banks but is unlikely to substitute (interest-bearing) savings accounts under normal market conditions. The need for specific (economic) design features of the digital euro to help ensure that the impact on commercial banks and the stability of the banking system is proportional is therefore limited. Such design features, as proposed in the literature, would allow the Eurosystem to regulate demand for the digital euro: (1) by charging or paying interest on the digital euros issued;[74] (2) by imposing access limits;[75] or (3) by limiting convertibility to selected non-bank assets, such as government bonds or cash.[76] While an interest-bearing euro would violate Article 128(1) TFEU,[77] the limitation of convertibility would imply an unacceptable loss of fungibility between the euro's different manifestations, would be complex, and would run counter to the notion of the digital euro as a public retail money. The present paper finds a more acceptable solution to be limits on the amount of digital euros that each person and entity[78] could

new policies on access to consumer data, and new competition from technology-focused financial companies – whether or not the central bank issues a digital currency.

74. See e.g. Kiff, Alwazir, Davidovic, Farias, Khan, Khiaonarong, Malaika, Monroe, Sugimoto, Tourpe and Zhou, "A survey of research on retail central bank digital currency", IMF Working Papers WP/20/104 (26 June 2020), at 33–34; Bank of England Discussion Paper cited *supra* note 4, at 38–39. Bindseil, op. cit. *supra* note 67, proposes a tiered remuneration system.

75. For example, to residents and non-residents with nationalities from within the euro area (Wierts and Boven, op. cit. *supra* note 29, at 34) or via absolute ceilings, e.g. Gürtler, Nielsen, Rasmussen and Spange, "Central bank digital currency in Denmark?", Danmarks Nationalbank Analysis No. 28 (Dec. 2017), at 16–17; Kiff et al., op. cit. *supra* note 74, at 31–33.

76. See e.g. Wierts and Boven, op. cit. *supra* note 29, at 21; Juks, op. cit. *supra* note 65, at 96; Kiff et al., op. cit. *supra* note 74, at 16.

77. See *supra* section 2.2.

78. While access to the digital euro could theoretically be limited to households (i.e. private persons), the present authors favour a design of widespread access (i.e. including businesses, financial institutions as well as public authorities) that falls squarely within the design of tangible cash.

hold.[79] However, limits on the holdings of digital euros conflict with a legal tender concept that encompasses limitless use of cash as a store of value. It can therefore only serve as a safeguard during an adjustment period for the banking sector while tangible cash is still in use.

5. Legal tender status of a digital euro

The issuance of a digital euro on the basis of Article 128(1) TFEU involves a binary choice when it comes to the digital euro's legal tender status. The third sentence of Article 128(1) TFEU[80] states the following:

> "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."

Accordingly, a digital euro issued by the Eurosystem *by definition* has legal tender status based on primary law – that is, without the need for secondary law to that end. An issuance model according to which issuance powers are delegated to non-Eurosystem entities, such as commercial banks, in contrast, would imply that the digital euro *lacks* legal tender status based on primary law. While the wording of Article 128(1) TFEU permits the ECB to authorize the issuance of a digital euro by commercial banks, it explicitly precludes the bestowal of legal tender status on such a digital euro.[81] Secondary law assigning legal tender status to a digital euro issued by entities outside the Eurosystem would thus be in violation of primary law.[82] In short, whether or not a digital euro possesses legal tender status depends on who its legal issuer

79. See also Wierts and Boven, op. cit. *supra* note 29, at 21 and 34. They speak of a ceiling at (or base part up to) between EUR 3,000 and 4,000 per natural person (leaving open the question of the amount that could be retained by legal entities and public authorities). This amount per capita would result in a total amount of retained digital euros comparable to that of cash in 2019 in the Netherlands (pp. 36–37).

80. Identical in its wording is also Art. 16, third sentence, ESCB Statue. See also Art. 10, second sentence, 2nd Euro-Regulation (974/98) (which is purely declaratory in character).

81. Art. 128(1) TFEU was phrased to accommodate the British practice, according to which some commercial banks in Scotland and Northern Ireland issue their own (tangible) banknotes fully backed by the pound sterling. These banknotes are not legal tender even in Scotland or Northern Ireland, but they are widely used throughout each respective territory and accepted as if they were banknotes issued by the Bank of England, which are legal tender in each territory. Van den Berg, op. cit. *supra* note 29, at p. 326.

82. See also Opinion in Joined Cases C-422 & 423/19, *Hessischer Rundfunk*, para 94.

is,[83] and is therefore a consequence of the digital euro's architecture and the issuance model chosen.[84]

Monetary object	**Issuer**	**Legal tender status**
Banknote (tangible and digital) (Art. 1281(1) TFEU)	ECB/NCBs	By definition (based on Art. 128(1) TFEU)
	Commercial banks (subject to ECB authorization)	Excluded (based on Art. 128(1) TFEU)
Coin (tangible) (Art. 128(2) TFEU)	Member States	Yes (based on Art. 11 Regulation 974/98)

Table 2: Overview legal tender status of monetary objects denominated in euro

5.1. *Meaning of legal tender in the EU*

The precise meaning of legal tender and its implications for EU and national private and public law are somewhat uncertain. Prior to the adoption of the euro, each euro area Member State had its own distinct understanding of the meaning of legal tender with a view to its national currency.[85] These understandings were often based on historical tradition, doctrine, and/or case law rather than statutory provisions. Article 128(1) TFEU refers to the term "legal tender" without defining it.

The EU has not (yet) utilized its exclusive competence in matters of monetary policy to clarify the issue.[86] Hence, the prevalent understanding of legal tender remains a largely "open concept".[87] Secondary law referring to the status of the euro as legal tender is scarce and generally limited to assigning legal tender status to certain (tangible) manifestations of the euro,

83. "Issuance" essentially refers to the appearance on the liability side of the central or commercial bank's balance sheet.

84. For an overview of possible alternative architectures and issuance models see Geva, Grünewald and Zellweger-Gutknecht, op. cit. *supra* note 15.

85. See European Legal Tender Expert Group (ELTEG), "Report on the definition, scope and effects of legal tender of euro banknotes and coins" (Brussels, 21 Jan. 2009), at p. 5 and Annex (pp. 23–73).

86. See Art. 3(1)(c) TFEU. A minority within the ELTEG, however, was of the opinion that the EU had already utilized its (limited) competence to define legal tender and that all further implications of the legal tender status were governed by national law. See ELTEG Report cited *supra* note 85, at p. 2.

87. See e.g. Mersch, "The role of euro banknotes as legal tender", speech at the 4th Bargeldsymposium of the Deutsche Bundesbank (Frankfurt, 14 Feb. 2018).

without further clarifying the fundamental consequences of that status.[88] Instead, in 2010, the Commission adopted a non-binding Recommendation[89] on the scope and effects of legal tender of euro banknotes and coins, addressed to euro area Member States and the ECB, amongst others.[90] This Recommendation was informed by the findings of the European Legal Tender Expert Group (ELTEG), an inter-institutional working group composed of national and EU experts.[91]

The ELTEG had reached a consensus on three core implications of the concept of legal tender, later adopted in Article 1 of the Commission Recommendation: (1) duty to accept (unless explicitly agreed otherwise); (2) acceptance at full face value; and (3) legal recognition as a means of discharge from payment obligations. These three core features may be regarded as a common denominator between the different national understandings of the legal tender concept within the euro area.

As a concept of EU law, legal tender as referred to in Article 128(1) TFEU must be given an autonomous and uniform interpretation throughout the EU. In a recent request for a preliminary ruling, the ECJ used the Commission Recommendation as guidance for further clarifying the meaning and scope of legal tender under EU law. The Court was asked to rule on the question whether Member States whose currency is the euro may adopt measures restricting the use of cash and hence on the effects of the legal tender status of euro banknotes provided for in EU law.[92] The case concerned two German citizens, whose attempt to pay a radio and television licence fee to Hessischer Rundfunk – the public broadcaster for the state of Hesse – in cash was rejected on the basis of the broadcaster's payment procedure rules.

The ECJ asserted that the concept of legal tender entails, in principle, the mandatory acceptance of euro banknotes by the creditor of a payment obligation. However, Member States may adopt national rules, which do not "abolish, in law or in fact, cash in euro, in particular by calling into question the possibility, as a general rule, of discharging a payment obligation in cash",[93] but impose "for reasons of public interest" restrictions on the

88. An exception is Art. 11 2nd Euro-Regulation (974/98), giving creditors the right to refuse acceptance of more than 50 euro-denominated coins, although the implications of that provision remain opaque. See Freitag, "Euro as legal tender (and banknotes)" in Hermann and Amtenbrink (Eds.), *EU Law of Economic and Monetary Union* (OUP, 2020), pp. 595–614, at para 21.26.

89. Art. 288(5) TFEU.

90. Commission Recommendation 2010/191/EU on the scope and effects of legal tender of euro banknotes and coins, O.J. 2010, L 83/70.

91. ELTEG Report cited *supra* note 85.

92. Joined Cases C-422 & 423/19, *Johannes Dietrich and Norbert Häring* v. *Hessischer Rundfunk*, EU:C:2021:63.

93. Ibid., para 62.

acceptance of euro banknotes as a means of payment.[94] Such restrictions are compatible with the concept of legal tender as enshrined in EU law insofar as they do not have "the object or effect of establishing legal rules governing the status of legal tender of [euro] banknotes" and are proportionate to the public interest objective pursued.[95] The ECJ clarified that considerations of cost efficiency may provide a public interest "capable of justifying a limitation on cash payments, in particular where the number of licence fee payers from whom the debt has to be recovered is very high".[96] Moreover, restrictions on payments in cash will not go beyond what is necessary to achieve the public interest objective pursued if other lawful means of payment for the settlement of debts are available.[97]

With a view to the proportionality of national restrictions on the use of euro banknotes to make payments, the Advocate General had emphasized the *inclusion element* of cash. For many (unbanked) people, "cash is the only form of accessible money and therefore the only means to exercise their fundamental rights linked to the use of money".[98] According to the Advocate General, these "vulnerable people" should be allowed to discharge their monetary obligations without additional costs.[99] This would appear to pertain in particular to monetary obligations that are public in nature, such as radio and television licence fees. The ECJ agreed with this stance, stating that there might be a need to provide for those without access to alternative means of payment of the radio and television licence fee to be able to pay in cash.[100]

5.2. *Reasons for a digital euro to have legal tender status*

The existence of legal tender is often explained by its stability and trust-building effects and the fact that it facilitates the exercise of fundamental

94. Ibid., paras. 66 and 67.

95. Ibid., para 78.

96. Ibid., para 74. According to the written observations of Hessischer Rundfunk, there are approximately 46 million licence fee payers in Germany (para 72).

97. Ibid., paras. 75 and 78. See already Opinion in Joined Cases C-422 & 423/19, *Hessischer Rundfunk,* para 167. The "lawful means of payment" (paras. 110–111) refers to Recital 19, 2nd Euro-Regulation (974/98). Siekmann, op. cit. *supra* note 36, at p. 44, disagrees, since a recital is not part of the provision, and the content of the Recital would negate an essential trait of legal tender. For a historical interpretation of Recital 19, 2nd Euro-Regulation, based on recently emerged materials, see Häring, "Hier erstmals veröffentlichte Archivdokumente zeigen: Die Rechtfertigung von Bargeldobergrenzen ist falsch", Blog post (6 June 2020), available at <norberthaering.de/bargeld-widerstand/bargeldobergrenzen-archivdokumente/>.

98. Opinion in Joined Cases C-422 & 423/19, *Hessischer Rundfunk*, para 137.

99. Ibid., para 138.

100. Joined Cases C-422/19 & 423/19, *Hessischer Rundfunk*, para 77.

freedoms.[101] Cash as legal tender serves several public interests. The ECB, in charge of authorizing the issuance of euro banknotes, therefore, considers itself to be "responsible for protecting the status of euro cash as the sole legal tender", including by "guaranteeing the existence of euro cash and its usability as legal tender".[102]

Is it really mandatory for a means of payment and store of value to have legal tender status to serve its key functions in the public interest? In other words, would any major drawbacks ensue if no legal tender in a strict sense were available to the general public – for example, if physical cash were naturally replaced at some point in time by a digital euro that lacked formal legal tender status?[103] This question has both a policy and a legal aspect. As far as policy is concerned, history reveals a remarkable desire on the part of policy-makers to maintain a formal legal tender at all times. In the transitional period lasting from 1 January 1999 to 31 December 2001, when no euro-denominated legal tender yet existed, pre-existing national currencies were declared to be sub-divisions of the euro to avoid a period without legal tender.[104] The banknotes and coins denominated in a national currency kept their status as legal tender within their territorial limits until 31 December 2001[105] and even beyond.[106]

The concept of legal tender originated with the mint lords who forced their people to accept the money they issued so that they could earn seigniorage.[107] While the fiscal interest in maintaining the legal tender concept may now be outdated, legal tender remains important as a means of spurring demand for a currency. Legal tender regularly implies that: (1) the government must accept

101. See Mersch, op. cit. *supra* note 87; Opinion in Joined Cases C-422 & 423/19, *Hessischer Rundfunk*, paras. 134–138.

102. Mersch, op. cit. *supra* note 87.

103. History shows that the need for a legal tender in the strict sense may be bypassed. Kosovo's currency regulation under the UN Administration, for example, established the following: (1) freedom to choose currency; (2) presumption of use of currency widely used; and (3) power of the government to designate such a currency for specific uses. See Regulation 1999/4 on the currency permitted for use in Kosovo, issued by the UN Administration in Kosovo (UNMIK), 2 Sept. 1999, available at <www.bqk-kos.org/repository/docs/2010/UNMIK_REG_1999_4.pdf>. Although the Regulation avoided the use of the term "legal tender", the media took it to mean that the Deutschmark effectively replaced the Yugoslav dinar as official legal tender in Kosovo. See e.g. "Kosovo adopts Deutschmark", BBC News, 3 Sept. 1999.

104. Art. 6 2nd Euro-Regulation (974/98). More specifically, "money of payment" was distinct from "money of account".

105. Art. 9 2nd Euro-Regulation (974/98).

106. According to Art. 15 2nd Euro-Regulation (974/98), banknotes and coins denominated in national currency kept their former status as legal tender for a maximum of 6 months after the end of the transition period.

107. See e.g. Mundell, "Monetary unions and the problem of sovereignty", 579 *The Annals of the American Academy of Political and Social Science* (2002), 123–152, at 130, 134.

its own currency;[108] and (2) private parties will accept it if nothing else has been agreed upon. For these reasons, it is recommended that a digital euro possesses formal legal tender status (i.e. is issued by the Eurosystem).[109]

From a strictly legal perspective, however, formal legal tender status is not mandatory. This article argues that some form of public money must be available to serve as a credit risk-free and trusted means of payment and store of value for the general public and that the Eurosystem must guarantee a form of such public money. However, even if the digital euro were to become the only form of public money at some point in the future, it would not be legally necessary for it to possess formal legal tender status. The legal position of a non-legal tender digital euro could (and would have to) be clarified in alternative ways. For example, to ensure that payment in digital euro discharges a citizen of public debts (such as taxes or television fees), the ECB could allow direct payment in digital euro by adopting a legal act to that end. In the unlikely event that a government might refuse to be paid in digital euro, the respective NCB could serve as a (tax) debt-collecting agent, crediting the government's reserve account when it receives payment from a taxpayer. As long as tangible cash continues to exist, a non-legal tender digital euro could be "attached" to the legal tender status of tangible banknotes and coins through the ECB's guaranteeing the conversion of digital euros to tangible cash promptly and in all instances.[110]

6. Conclusion

In light of the ever-growing digitalization of society and the prospect of the declining use of cash, the ECB is exploring various options with the aim of introducing a digital euro. This article tackled the core question of whether and to what extent the Eurosystem is indeed competent *de lege lata* to issue such a digital currency. On the basis of a textual, historical, teleological, and systematic interpretation of Article 128(1) TFEU and Article 16 ESCB Statute, it answered the question in the affirmative, but also highlighted that the Eurosystem's competence is limited in one crucial aspect: Article 128(1) and Article 16 ESCB Statute only allow for the issuance of a digital euro that mimics in its design the functions of tangible cash. This precludes a design as an instrument of monetary policy – for example, as interest-bearing. In other words, like tangible cash, the digital euro would (and should) help safeguard

108. The judgment in Joined Cases C-422 & 423/19, *Hessischer Rundfunk,* is instructive.

109. On the *inclusion element* of cash see Opinion in Joined Cases C-422 & 423/19, *Hessischer Rundfunk*, paras. 135–138.

110. Banque de France Report cited *supra* note 4, at p. 32.

the monetary policy transmission mechanisms but must not be used to alter the mechanism itself.

This article's findings have fundamental implications. The Eurosystem is empowered to complement its cash issuance with the issuance of a digital equivalent to euro banknotes without the need for a Treaty amendment or any authorizing legislative act to that end. The Eurosystem's powers on the basis of Article 128(1) TFEU include incidental powers as to the design of the digital euro as well as its production, distribution, and storage/transfer. With the exception of design, most of these incidental powers are delegable to private market players, such as commercial banks. The Eurosystem's powers to issue a digital euro are necessarily exclusive and prevail over the remaining powers of Member States to issue tangible coins. Whether or not the digital euro will possess legal tender status is ultimately a policy question to be decided by the Eurosystem. It depends on whether the Eurosystem itself will issue the digital euro or whether issuance is delegated to commercial banks against a full central bank money reserve.

Conversely, the article's findings imply that the issuance of a retail digital euro to directly serve the ECB's monetary policy would necessitate a political mandate. Banknotes have never served as – and were never intended to serve as – a monetary policy instrument. To turn them into such instruments, even if they are digital in format, would violate Article 128(1) TFEU both in letter and spirit. A secondary legal act on the basis of Article 133 TFEU would not suffice to address the issue. Even if "use of the euro" were interpreted broadly to include the use of the digital euro as an instrument to transmit monetary impulses, secondary law cannot circumvent the limitations imposed by Article 128(1) TFEU in terms of the functions to be served by banknotes. An amendment of the Treaties would have to establish that the digital euro could simultaneously serve as both a store of value and a means of payment to the general public *and* as a monetary policy instrument. In light of the far-reaching and fundamental changes that such an amendment would instigate, it is doubtful that a simplified revision procedure on the basis of Article 48(6) TEU would suffice.[111] In particular, the possibility that the Eurosystem might introduce *negative* interest on digital euro holdings would arguably amount to a form of tax that is beyond the EU's current competences,

111. The simplified revision procedure according to Art. 48(6) TEU was deployed in 2011 to introduce Art. 136(3) TFEU to legitimize the establishment of the European Stability Mechanism (ESM). See e.g. De Witte, "The European Treaty amendment for the creation of a Financial Stability Mechanism", Swedish Institute for European Policy Studies, European Policy Analysis (June 2011).

thus requiring that the Treaties be amended in an ordinary revision procedure.[112]

The Eurogroup has identified the digital euro as a "top priority" while conceding the main responsibility to the ECB.[113] This article confirmed that the ECB is indeed not only empowered but also obligated to issue a digital euro on the basis of Article 128(1) TFEU if the decline in the use of cash continues (as is to be expected). With the establishment of an internal task force and the publication of its digital euro report in October 2020, the ECB has taken the first necessary steps to meet its obligations. The numerous policy choices involved in the issuance of a digital euro will have to be guided by technological expertise and sound legal analysis. The aim of this article was to underpin the emerging legal and policy debate with an account of the scope and limitations of the ECB's Treaty powers with respect to the digital euro.

112. Art. 48(1)–(5) TEU.

113. Remarks by Paschal Donohoe following the Eurogroup video conference of 3 Nov. 2020, available at <www.consilium.europa.eu/en/press/press-releases/2020/11/03/remarks-by-paschal-donohoe-following-the-eurogroup-video-conference-of-3-november-2020/> ("It is absolutely clear that the design of and final decision upon issuing a digital euro is largely the responsibility of the ECB.").

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