

Proposal COM(2023) 369 of 28 June 2023 for a Regulation on the establishment of the digital euro

DIGITAL EURO

cepPolicyBrief No. 15/2023

LONG VERSION

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A. Key elements of the EU proposal

1 Context and objectives

- ▶ Currently, there are basically two forms of money: (1) central bank money and (2) commercial bank money [Impact Assessment, p. 3 and 4]:
 - “Central bank money” consists of (a) banknotes and coins (“cash”) and (b) accounts that banks hold at the central bank (“reserves”). Cash and reserves are a direct liability of the central bank towards their holders. Cash has the status of a legal tender.
 - “Commercial bank money” consists of deposits held at commercial banks that can be used for settlement purposes. Deposits are a direct liability of the commercial bank towards their holders. Commercial bank money does not have the status of legal tender.
- ▶ The use of banknotes and coins in payments is diminishing in recent years. On the other hand, the general public is increasingly purchasing online, and it is shifting towards a large variety of private digital means of payment. Thus, the use of “commercial bank money” rises, while the use of “central bank money” declines. The Commission fears that, if this trend continues, the only form of central bank money that functions both as legal tender and as monetary anchor will gradually disappear. [Recital 3, p. 1]
- ▶ In recent years, many central banks around the world explore to issue a central bank digital currency (“CBDC”) – i.e., a “form of official currency which constitutes a liability of a central bank that is issued and stored digitally” – or they have already issued a CBDC. Furthermore, so called “stablecoins” – i.e., “crypto-assets that reference a fiat currency or a portfolio of liquid assets” – issued by private firms often from third countries emerged or are on the verge of emergence. The Commission fears that an (increasing) uptake of CBDCs and stablecoins from third countries and their wide use in payments could undermine or challenge the role of the euro in payments in the future. [p. 1, Recital 7, Impact Assessment, p. 3 and 4]
- ▶ In view of these developments, the potential issuance of a CBDC for use by the general public (“retail CBDC”) in the euro area – the “digital euro” – has gained significant attention and traction [Impact assessment p. 6 and 7]:
 - In October 2020, the European Central Bank (ECB) issued a report on a digital euro and started a consultation that run until January 2021.
 - In March 2021, at the Euro Summit, Member States and the ECB, stated that exploratory work on a digital euro should proceed.
 - In July 2021, the ECB’s Governing Council decided to launch a two-year “investing phase” starting in October 2021.
 - In the meantime, the Eurogroup, the European Parliament and the Economic and Financial Affairs Council (ECOFIN) expressed, on several occasions, their support to proceed with the work on the digital euro project.
 - In October 2023, the ECB concluded its “investigation phase” and started with a two year “realization phase”.
- ▶ With the proposed Regulation, the Commission wants to establish the digital euro and lay down its essential elements [Recital 8, Art. 1] After its adoption, the ECB can decide [Recital 8]
 - whether to issue the digital euro at all,
 - in what amounts,
 - at what time, and
 - about specific measures that are intrinsically connected to the issuance of the digital euro.
- ▶ The objective of the proposed Regulation and, thus, the establishment of the digital euro is to ensure that [p. 2]
 - central bank money with the status of legal tender remains available, and
 - a state-of-the-art and cost-efficient payment means is available to the general public in the euro area, while ensuring a high level of privacy in digital payments, maintaining financial stability, promoting accessibility and financial inclusion.
- ▶ The Commission wants the digital euro to “complement” euro cash. It “should not replace the physical forms of the single currency”. [Recital 6]

2 Establishment and issuance of the digital euro

- ▶ The digital euro is established as the digital form of the single currency, i.e., the euro [Art. 3, Art. 133 AEUV].

- ▶ The ECB has the right to authorize the issuance of the digital euro [Art. 4 (1)]. The ECB as well as the central banks of euro Member States may issue the digital euro [Art. 2 No. 13, Art. 4 (1)].
- ▶ The digital euro shall be a direct liability of the ECB or of the central banks of euro Member States towards digital euro users [Art. 4 (2)].

3 Legal tender status of the digital euro

- ▶ The digital euro shall have legal tender status [Art. 7 (1)]. This means that [Recital 14, Art. 7 (2–5)]
 - it cannot generally be refused by a payee in settlement of a debt denominated in the same currency, i.e., the euro (“mandatory acceptance”),
 - it must be accepted at its “full-face value”, i.e., in case of the payment of a debt, the monetary value of digital euro shall be equal to the value of the monetary debt, and
 - any payment with it discharges the payer from the payment obligation.
 The legal tender status of the digital euro complements the legal tender status of euro banknotes and coins [Recital 15, Art. 128 (1) TFEU, Art 10 and 11 of Council Regulation [\(EC\) No 974/9827](#) on the introduction of the euro].
- ▶ The digital euro shall have legal tender status for [Art. 8]
 - online payments in euro to a payee residing or established in the euro area, and
 - offline payments in euro that take place within the euro area.
- ▶ There are derogations to the legal tender status of the digital euro with respect to its “mandatory acceptance”. A payee may refuse to accept the digital euro, when
 - it is an enterprise with less than 10 employees or an annual turnover or balance sheet total of a maximum of 2 million euro, or if it is a non-profit legal entity; this does not apply if they accept “comparable” means of payment, i.e. debit card or instant payments, when used at the point of interaction [Recital 18, Art. 2 No. 25, Art. 9 lit. a],
 - the refusal is made in good faith and is based on legitimate and temporary grounds (e.g., an internet blackout) [Art. 9 lit. b], and
 - it is a natural person that acts in a purely personal or household capacity [Art. 9 lit. c].
- ▶ Payees may also refuse to accept the digital euro, if they agree with the payer on another payment means prior to a payment [Art. 9 lit. d]. However, they are not allowed to unilaterally exclude the acceptance of digital euro via non-individually negotiated contractual terms or by referring to commercial practices having the same effect [Art. 10].
- ▶ The Commission may adopt delegated acts to add further exceptions with respect to the mandatory acceptance of the digital euro. Such exceptions must be [Art. 11]
 - of a “monetary law nature”,
 - justified by an objective of public interest, and
 - proportionate to that objective.
- ▶ The digital euro shall be convertible with euro banknotes and coins at par [Art. 12 (1)].
- ▶ Surcharges on a payment of debt with the digital euro are prohibited [Art. 7 (4)].
- ▶ If payees must accept euro banknotes and coins as well as the digital euro, the payer shall be able to choose the means of payment [Art. 12 (2)].

4 Distribution of the digital euro

- ▶ Digital euro payment services may be provided by authorized “payment service providers (PSPs)” located in the European Economic Area [Recital 26, Art. 13 (1)]. “PSPs” are, in particular, banks, payment institutions, electronic money institutions and post office giro institutions [Art. 2 No. 7 in connection with Art. 4 No. 11, Payment Services Directive II [\(EU\) 2015/2366](#), see [cepPolicyBrief 10/2014](#)].
- ▶ Only banks, that provide basic payment services, must, upon request of clients that are natural persons residing or established in the euro area, provide those clients with all “basic digital euro payment services”. Thus, only those banks – not all PSPs – are obliged to provide those basic services. [Recital 28 and 30, Art. 14 (1)]. “Basic digital euro payment services” are, inter alia, [Annex II]
 - the management of digital euro payment accounts,
 - (de-)funding services from and into cash,
 - non-automated (de-)funding services from a non-digital euro payment account, and

- the provision of at least one electronic payment instrument for the execution of digital euro payments.
- ▶ All payment service providers (PSPs), other than banks that provide basic payment services, “may” provide basic digital euro payment services. Furthermore, all PSPs, including banks that provide basic payment services, may provide “additional digital euro payment services”. Such services may, for instance, be conditional digital euro payments. [Recital 30]
- ▶ Digital euro payment services may be provided to [Art. 2 (22), Art. 13 (1)]
 - natural and legal persons residing or established in Member States whose currency is the euro (“euro area”),
 - natural and legal persons who formerly resided or were established in the euro area and opened a digital euro account at that time,
 - visitors, i.e. natural persons travelling to and staying in the euro area, including for tourism, business or education and training purposes,
 - subject to conditions, natural and legal persons residing or established in Member States whose currency is not the euro (“non-euro area”) or in third countries.
- ▶ The ECB is allowed to restrict, for visitors and for persons formerly residing or established in the euro area [Art. 13 (1)]
 - the access to the digital euro, and
 - the use in time of the digital euro.
- ▶ The European Central Bank may restrict the access to and use in time of the digital euro for the digital euro users referred to in points (b) and (c) subject to the conditions laid down in Article 16 (2). Those timeframes shall be determined in relation to the residence or visiting status of the digital euro users.
- ▶ PSPs that provide and maintain payment accounts (“account servicing payment service providers, ASPSPs”) must enable digital euro users to manually or automatically fund or defund their digital euro payment accounts to non-digital euro payment accounts or, in case they also provide cash services, to coins and banknotes, and vice versa [Art. 13 (2)]. ASPSPs must offer such (de-)funding services regardless of their ability to provide the liquidity source for those funds in central bank money [Recital 24].
- ▶ PSPs must provide (de-)funding services [Art. 13 (3)]
 - when taking place via non-digital euro accounts “at any point in time” and “on a continuous basis”,
 - when taking place via euro banknotes and coins, when they offer cash services.
- ▶ The ECB may establish limits on digital euro holdings [Art. 16, see also chapter 6]. However, digital euro users may [Recital 36, Art. 13 (4)]
 - receive online digital euro payments in excess of such limits; in such cases, their ASPSPs must enable the users to transfer the funds in excess of the limits automatically to a non-digital euro payment account (“waterfall functionality”),
 - want to make a digital euro payment even though their digital euro holdings are inferior to the amount of the payment; in such cases, their ASPSPs must enable the users to mobilize the missing funds from a non-digital euro payment account (“reverse waterfall functionality”).
 The ASPSPs shall link each digital euro payment account with one specific non-digital euro payment account as agreed with the digital euro user [Art. 13 (4)].
- ▶ Digital euro users shall only conclude contracts with PSPs for the purpose of digital euro payment services. They should not have a contractual relationship with the ECB or national central banks of the euro area. [Art. 13 (6)]
- ▶ Digital euro users may have one or multiple digital euro payment accounts with the same or different PSPs [Art. 13 (7)].

5 Financial inclusion

- ▶ Natural persons residing or established in the euro area that do not hold a non-digital euro account shall have a right of access to a digital euro payment account with basic features offered by banks [Art. 14 (2)].
- ▶ Member States must designate national public entities, including local or regional authorities, or post office giro institutions to provide basic digital euro payment services to [Art. 14 (3)]
 - natural persons residing or established in the euro area that do not hold or do not wish to hold a non-digital euro payment account,
 - natural persons with disabilities, functional limitations or limited digital skills, and elderly people.

- ▶ The said public entities and banks must also provide “digital inclusion support” to persons with disabilities, functional limitations or limited digital skills, and elderly persons [Art. 14 (4)]. Public entities must provide such support” also “face-to-face in physical proximity” [Art. 14 (3)].

6 Limits to the use of the digital euro as a store of value

- ▶ The use of the digital euro as a store of value “may” be subject to limits. This is to ensure “defining and implementing monetary policy” and “contributing to the stability of the financial system”. [Art. 15 (1)]
- ▶ The ECB “shall” develop “instruments” to limit the use of the digital euro as a store of value and shall decide on their parameters and use [Art. 16 (1)].
- ▶ When specifying the parameters and use of the limitation instruments, the ECB must ensure [Art. 16 (2)]
 - the objectives of “defining and implementing monetary policy” and “contributing to the stability of the financial system”,
 - usability and acceptance of the digital euro as legal tender, and
 - the adherence to the principle of proportionality.
 This may include quantitative digital euro holdings limits or limits to conversion of other categories of funds to digital euro [Recital 32].
- ▶ In case the ECB sets digital euro holding limits, they apply to both online and offline digital euro holdings. When a user uses both an offline and an online digital euro, the holding limit for online digital euro holdings equals the overall limit for digital euro holdings minus the holding limit for offline digital euro. The latter may be set individually by the digital euro user. It must be set between zero and an amount fixed by the Commission via implementing acts for anti-money laundering purposes. [Art. 16 (4), Art. 37 (5), see also chapter 16].
- ▶ The potential limits on the use of the digital euro set by the ECB for visitors, natural and legal persons who formerly resided or were established in the euro area and for natural and legal persons residing or established in the non-euro area or in third countries must not be higher than for natural and legal persons residing or established in the euro area [Art. 16 (5)].
- ▶ Digital euro users must, in case they have multiple digital euro payment accounts, inform their PSPs how they want to allocate the holding limit between their different digital euro payment accounts [Art. 16 (6)].
- ▶ The digital euro shall not bear interest [Art. 16 (8)].

7 Limits on fees and charges for using the digital euro

- ▶ The use of the digital euro as a legal tender means of payment shall be preserved by limiting the level of charges or fees that [Recital 31, Art. 15 (2)]
 - natural persons must pay to PSPs,
 - merchants must pay to PSPs (“merchant service charge”), and
 - PSPs must pay each other (“inter-PSP fees”).
- ▶ PSPs are not allowed to charge fees for basic digital euro payment services, when provided to [Art. 17 (1)]
 - natural and legal persons residing or established in the euro area,
 - natural and legal persons who formerly resided or were established in the euro area, and
 - visitors.
- ▶ The merchant service charges or inter-PSP fees must be proportional [Art. 17 (2)]. Any such charge or fee must not exceed the lowest amount between the following two amounts [Art. 17 (2)]:
 - costs for the provision of digital euro payments, including a reasonable margin of profit,
 - fees or charges requested for comparable digital means of payment.
 The ECB may require PSPs to provide it with information, so that it is able to monitor and ensure compliance of PSPs with the requirements [Art. 17 (4)]. The ECB shall develop a methodology to monitor and check the amounts that PSPs assume for the determination of the two amounts. In this regard,
 - the costs shall be based on the costs of the most cost-efficient PSPs that represent collectively one fourth of the distributed digital euro in the euro area [Art. 17 (5) (a)],
 - the reasonable margin of profit shall be based on the margin of the PSPs with the lowest margin of profit that represents one-fourth of the distributed digital euro in the euro area [Art. 17 (5) (b)],
 - the fees or charges requested for comparable digital means of payment shall be based on a representative group of PSPs that offer comparable means of payment [Art. 17 (5) (c)].

- ▶ PSPs must not charge merchants other charges than the “merchant service charge”. They shall include costs associated with the provision of any (de-)funding services in the cost calculation for the merchant service charge [Art. 17 (6)].
- ▶ PSPs must not charge any “inter-PSP fees” for the provision of (de-)funding services [Art. 17 (7)].

8 Distribution of the digital euro outside the euro area

- ▶ PSPs may only provide the digital euro to persons residing or established in a non-euro Member State when the ECB has signed an agreement with the central banks of that Member State [Art. 18 (1)].
- ▶ The central bank of the non-euro Member State may only sign such an agreement, when the non-euro Member State can ensure that [Art. 18 (2)]
 - its central bank abides by any rules, guidelines, instructions, or requests issued by the ECB in relation with the digital euro,
 - its central bank provides the ECB with information related to usage of and access to the digital euro use,
 - it has adopted all national legislations to comply with the proposed Regulation, and any rules and standards defined by the ECB.
- ▶ PSPs must, with respect to digital euro users residing or established in non-euro Member States, implement the potential holding limits set by the ECB that apply for non-euro Member States [Art. 18 (4)].
- ▶ Natural and legal persons residing or established in third countries may only use the digital euro, if the EU and the respective third countries have signed an agreement [Art. 19 (1)]. The Council decides upon the arrangements for the negotiation and the conclusion of such agreements based on a recommendation by the Commission [Art. 19 (2)].
- ▶ The third country must comply with the same conditions than non-euro Member States (see above). In addition, it must ensure that its providers of the digital euro are subject to equivalent supervisory and regulatory requirements as applicable to PSPs in the EU [Art. 19 (2)].
- ▶ Providers of the digital euro in third countries must, with respect to digital euro users residing or established in third countries, implement the potential holding limits set by the ECB that apply for third countries [Art. 19 (5)].
- ▶ The ECB and the central banks of non-euro Member States or third countries must conclude agreements before cross-currency payments between the digital euro and the currency of that non-euro Member States or third countries may take place [Art. 21 (1)].

9 Digital euro functionalities

- ▶ The digital euro must have usage and service features that are simple and easy to handle and must be accessible through a wide range of hardware devices, in particular to support financially excluded persons or persons at risk of financial exclusion [Recital 54, Art. 22 (1)].
- ▶ Digital euro users shall not be forced by their PSP to also [Art. 22 (1)]
 - have or open non-digital euro payment accounts, or
 - accept other non-digital euro products.
- ▶ Each digital euro payment account shall have a unique account number [Art. 22 (2)].
- ▶ Digital euro users may link each of their digital euro payment accounts to one or more non-digital euro payment accounts. However, to correctly manage digital euro holdings in excess of any holding limits set by the ECB, each digital euro payment account must be linked to one specific non-digital payment account. [Art. 22 (4)]
- ▶ The payee and the payer must be informed about whether a digital euro payment is made online or offline in a proximity payment before the payment is initiated [Art. 23 (3)].
- ▶ The digital euro should allow for “conditional” digital euro payments [Art. 24 (1)]. These are payments that are “instructed automatically upon fulfilment of pre-defined conditions agreed by the payer and by the payee” and may include payment standing orders or certain payments between machines [Recital 55, Art. 2 No. 17].

- ▶ The digital euro should not be “programmable money” [Art. 24 (2)]. This is money “with an intrinsic logic that limits each unit’s full fungibility”, i.e., the money can only be used to buy certain goods or services or for a certain limited amount of time [Recital 55, Art. 2 No. 18].

10 Provision of front-end services

- ▶ PSPs must provide digital euro users with front-end services to access and use the digital euro. PSPs can choose to offer front-end services developed by [Recital 61, Art. 28 (1)]
 - themselves, or
 - the ECB.
- ▶ In case PSPs do not offer front-end services developed by themselves, they must offer the one(s) developed by the ECB. In case PSPs offer both their own front-end services and the one(s) by the ECB, the digital euro users can decide which one(s) they want to use. [Recital 61, Art. 28 (1)]
- ▶ The use of front-end services developed by the ECB shall not provide for a customer relationship between the digital euro users and the ECB, but only between the users and the respective PSP [Art. 28 (2)].
- ▶ The ECB shall not have access to any personal data in relation to the front-end services it developed and that are used by PSPs [Art. 28 (2)].
- ▶ The front-end services by PSPs and the ECB must be interoperable with or integrated in “European Digital Identity Wallets” (EDIW) [Art. 25 (1)]. EDIW are electronic identification means issued by Member States that allow its users to store identity data, credentials and attributes linked to their identity and provide such data, credentials and attributes to relying parties [COM (2021) 281, see [cepPolicyBrief 25/2021](#)]. EDIW may facilitate transactions with the digital euro and contribute to an effective universal access to and use of the digital euro [Recital 57]
- ▶ PSPs must ensure that digital euro users can, on their request, rely on the functionalities of their EDIWs [Art. 25 (2)]. Thus, PSPs must ensure that [Recital 58]
 - digital euro users may authorize digital euro payments using an EDIW,
 - the identities of prospective and existing digital euro users can be verified using an EDIW,
 - they can rely on qualified attestations provided by an EDIW to facilitate the opening of a digital euro account,
 - they are able to accept the use of an EDIW for digital euro payments, and
 - an EDIW may be used by a digital euro user to store digital euro in the payment device for offline payment purposes.
- ▶ The ECB shall ensure [Art. 26]
 - that the standards governing digital euro payment services are interoperable with relevant standards governing private digital means of payment, and
 - that private digital means of payment can use rules, standards and processes governing digital euro payment services.

11 Settlement of digital euro payments

- ▶ Digital euro payments must be settled instantaneously [Art. 30 (1)].
- ▶ Final settlement of [Art. 30 (2) and (3)]
 - online payments shall occur, when the digital euro transfer is recorded in the settlement infrastructure approved by the Eurosystem,
 - offline payments shall occur, when the records of the digital euro holdings are updated in the local storage devices of the payer and payee.

12 Digital euro account switching

- ▶ Digital euro users have the right to switch from one PSP to another PSP while keeping their digital euro account identifiers [Art. 31 (1)].
- ▶ The ECB and the central banks of euro Member States may authorize the switching of a digital euro payment account, if a PSP [Art. 31 (2)]
 - is unable to provide digital euro services for a prolonged period of time,
 - has lost relevant data related to a digital euro payment account.

13 Fraud detection and prevention

- ▶ The ECB may establish a general fraud detection and prevention mechanism for online digital euro transactions to support activities in that regard by PSPs [Recital 68, Art. 32 (1)]. The mechanism shall [Art. 32 (3)]
 - assess the exposure to fraud risk in real-time before a transaction is settled, and
 - support PSPs in detecting fraud after a transaction has been settled.
- ▶ PSPs must provide the ECB’s mechanism with specific information on digital euro payments accounts, payment transactions and transaction sessions of digital euro users. However, they must ensure that the mechanism is not able to directly identify a digital euro user. [Art. 32 (4)]

14 Access to mobile devices

- ▶ Manufacturers of mobile devices (e.g. smart phones, tablets, smart watches and wearables) and providers of electronic communication services (e.g. internet access and interpersonal communications services) must ensure that providers of front-end services and EDIW have access to hardware and software features (e.g. near field communication antennas, secure elements of mobile devices) necessary for storing and transferring data to process online or offline digital euro payments. Such access must be provided on fair, reasonable and non-discriminatory (FRAND) terms. [Recital 69, Art. 2 No. 31, Art. 33 (1)].
- ▶ Manufacturers of mobile devices and providers of electronic communication services may take “duly justified” measures to ensure that the integrity of the hardware and software features is not compromised by the access obligation [Art. 33 (2)].

15 Privacy and data protection

- ▶ PSPs are allowed to process personal data to fulfil tasks essential for the proper functioning of the digital euro [Recital 73]. In this regard, they may process personal data, inter alia, to [Art. 34 (1)]
 - enforce the holding limits set by the ECB,
 - initiate a (de-)funding of digital euro holdings,
 - initiate digital euro payments, and
 - provide offline digital euro and to manage local storage devices.
- ▶ For the provision of offline digital euro, PSPs may only process personal data with respect to (de-)funding digital euro [Art. 34 (1)]. For such (de-)funding activities, users need to be connected to the internet (see Q&A on the proposed Regulation). PSPs are not allowed to process personal data related to offline digital euro payments [Recital 75].
- ▶ PSPs shall be considered the controllers of personal data with respect to the tasks mentioned above, i.e. the bodies that determine the purposes and means of personal data processing [Art. 34 (3)].
- ▶ PSPs must ensure that data communicated to the ECB and the national central banks of the euro area does not allow for the identification of individual digital euro users [Art. 34 (4)].
- ▶ The ECB and the national central banks of the euro area are also allowed to process personal data to fulfil tasks essential for the proper functioning of the digital euro [Recital 76]. In this regard, they may process personal data, inter alia [Art. 35 (1)]
 - to provide access for PSPs to the digital euro settlement infrastructure,
 - to settle online digital euro payments, and
 - to safeguard the integrity of local storage devices.
- ▶ The ECB and national central banks of the euro area shall be considered the controllers of personal data with respect to the tasks mentioned above. They shall not be able to directly identify individual digital euro users. [Art. 35 (4)]

16 Anti-money laundering and terrorist financing

- ▶ Both the Directive [\(EU\) 2015/849](#) on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing and the Regulation [\(EU\) 2015/847](#) on information accompanying transfers of funds (see [cepPolicyBrief 17/2013](#)) are applicable for any online digital euro payments, but not for offline digital euro payments [Art. 5 (5)].
- ▶ For offline digital euro payments, the following applies:

- PSPs, the ECB and the central banks of the euro area are not allowed to retain transaction data [Art. 37 (2)],
- PSPs must retain data of (de-)funding for storing digital euro on payment instruments for a period of five years after the end of a business relationship with their customers or the date of an occasional transaction; this includes data on the amount (de-)funded, the identifier of the local storage device, the date and hour of the (de-)funding transaction, and the accounts numbers used for funding and defunding [Art. 37 (3) and (4) in connection with Art. 40 of Directive [\(EU\) 2015/849](#)].
- The Commission may adopt implementing acts setting offline digital euro payment transaction and holding limits. Such limits shall prevent money laundering and terrorist financing while not unduly restrict offline digital euro payments. [Art. 37 (5) and (6)] The implementing acts shall be adopted in accordance with the “examination procedure”. Thus, a committee composed of representatives of the Member States assists the Commission. The committee is able to block, under certain conditions, the adoption of the implementing acts. [Art. 37 (5) and Art. 39 in connection with Art. 5 of Regulation [\(EU\) No 182/2011](#)].

17 Reports by the ECB, the Commission and Member States

- ▶ The ECB must report on the digital euro development and its use. The report shall cover, in particular, information on [Art. 40 (1)]
 - the level of merchant service charges and inter-PSP fees,
 - the interoperability of the digital euro with other currencies,
 - the development of non-digital euro CBDCs in other countries, and
 - market trends in payments.
- ▶ The ECB must provide information to the European Parliament, the Council and the Commission, before the issuance of the digital euro and every three years thereafter, on [Art. 40 (2)]
 - the instruments to limit the use of the digital euro, and
 - how the instruments are expected to meet the objective of safeguarding financial stability.
- ▶ The Commission must provide a report to the European Parliament and the Council, one year after the first issuance of the digital euro and every three years thereafter, on the instruments to limit the use of the digital euro and their impact on [Art. 40 (3)]
 - the role of financial intermediaries in the financing of the economy, and
 - the requirements for banks with respect to their liquidity.
- ▶ Member States must provide a report to the Commission, one year after the first issuance of the digital euro and every two years thereafter, in particular, on the amount of on [Art. 40 (4)]
 - digital euro accounts, and
 - providing basic digital euro payment services.

18 Interplay with other European legislation

- ▶ The proposed Regulation is complemented by a proposal for a Regulation on the legal tender of euro banknotes and coins [\[COM\(2023\) 364\]](#). The proposed Regulation lays down rules both on the scope and the effects of the legal tender status of banknotes and coins. The objectives are to preserve that status in the future in practice and ensure the ease of access to cash.
- ▶ The proposed Regulation is further complemented by a proposal for a Regulation on the provision of digital euro services by PSPs incorporated in non-euro Member States [\[COM\(2023\) 368\]](#). The proposed Regulation lays down rules for specific obligations PSPs in non-euro Member States must fulfil, when they want to provide digital euro payment services, as well as rules on supervision and enforcement of said obligations.
- ▶ The Directive [\(EU\) 2015/2366](#) (PSD II, see [cepPolicyBrief_10/2014](#)) regulates the provision of payment services by PSPs. The PSD II shall also apply to payments with the digital euro and the provision of digital euro payment services by PSPs. [Recital 10, Art. 5 (3)] On 28 June 2023, the Commission proposed a revision of the PSD II [\[COM\(2023\) 366\]](#), PSD III]. When adopted, the PSD III shall also apply to digital euro payments and the provision of digital euro payment services. The revision includes an amendment of the definition of “funds”. The definition shall now cover – beyond banknotes, coins, scriptural money and electronic money – retail CBDC, including the digital euro. [Recital 10, Art. 5 (3)]
- ▶ The Regulation [\(EU\) 2021/1230](#) on cross-border payments in the EU shall also apply to the digital euro. On 28 June 2023, the Commission proposed an amendment of that Regulation [\[COM\(2023\) 368\]](#). When adopted, the amended Regulation on cross-border payments shall also apply to the digital euro. [Recital 10, Art. 5 (4)]

B. Legal and political context

1 Status of legislative procedure

28.06.2023	Adoption by the Commission
Open	Adoption by the European Parliament and the Council, publication in the Official Journal of the European Union, entry into force

2 Options for exerting political influence

Directorates General:	DG Financial Stability, Financial Services and Capital Markets Union
Committees of the European Parliament:	Economic and Monetary Affairs, Rapporteur: Stefan Berger (EVP, DEU)
Federal Ministries:	Finance (leading)
Committees of the German Bundestag:	Finance (leading)
Decision-making mode in the Council:	Qualified majority (acceptance by 55% of Member States which make up 65% of the EU population)

3 Formalities

Basis for legislative competence:	Art. 133 TFEU (Euro as single currency)
Form of legislative competence:	Shared competence [Art. 4 (2) TFEU]
Procedure:	Art. 294 TFEU (ordinary legislative procedure)

C. Assessment

1 Economic Impact Assessment

1.1 General assessment of the introduction of a digital euro

The ECB has been working on the digital euro project for several years and over time it seems to have concluded that the project is indeed one that should be pushed forward and implemented in due course. And the EU Commission now also seems to follow the ECB's arguments and has therefore submitted a proposal that should enable the ECB to introduce the digital euro in due time. But is the introduction of a digital euro necessary and are the arguments in favor of its introduction conclusive?

1.1.1 The reasoning of the ECB and the Commission on the introduction of the digital euro

It should be noted that the ECB and the Commission are pushing for the medium-term implementation of the digital euro because of, essentially, two postulated fears:

First, there is the fear of losing power, influence and seigniorage revenues from banknote and coin issuance. The ECB and the Commission correctly state that the use of cash is declining in the EU; while cash transactions at the point of sale still accounted for 79% of all retail payment transactions in 2016, the share was only 59% in 2022 and in individual EU member states even only around 20%. At the same time, the use of digital payment solutions by the private sector is increasing, especially online payment transactions.¹ However, cash represents the only central bank money relevant for citizens. If they use less and less cash in the near or distant future, the Commission and the ECB believe this might create trouble for monetary anchoring, i.e., the capacity of central bank money to set and guarantee the value of the euro, among other things to be able to convey monetary policies. In their worst-case scenario, the absence of retail central bank digital currency would lead to private alternatives (including stablecoins running on blockchains) having imperfect convertibility with the euro. This would crack the promise that citizens are able to exchange commercial bank money, i.e., deposits in bank accounts, for central bank money in its retail physical form, i.e., cash. This may lower citizens' trust in commercial bank money, as the Commission deems that trust being dependent on the ability to convert it at par with central bank money, also in times of banking crisis. The digital euro is a means supposed to counteract this potential

¹ Impact Assessment, p. 16 and 17.

development by (1) ensuring a wide use of a retail central bank digital currency and (2) maintaining convertibility at par with alternative digital currencies and physical cash at all times.

Secondly, there is the fear of growing competition, both from private and state players and especially from non-European competitors. For example, many payment solutions that are already established and widespread in the market are already supported by companies based in third countries (e.g. Mastercard). At the same time, large tech companies are increasingly entering the market (e.g. Apple Pay). Furthermore, the development of stablecoins that are not denominated in euros could gain further momentum and establish themselves as a new means of payment (e.g. PayPal USD). Finally, other jurisdictions are also working on their own digital central bank currencies. The digital euro is a European public response to this development. The Commission and the ECB expect the digital euro to counteract a further spread and increase in power of private and state payment solutions from third countries and a further backsliding of European payment solutions, as well as ensure the monetary sovereignty and the strategic autonomy of the Eurozone.

The digital euro is to be established to prevent certain (possible) developments that the Commission perceives to be disadvantageous for the credibility of the European single currency (rather than for European consumers). Or as Fabio Panetta, member of the ECB Executive Board, recently put it: *"Our response to the technological revolution in payments cannot be to stand still."*²

1.1.2 Challenging the reasoning of the ECB and the Commission

However, the question arises as to whether the postulated dangers are valid fears and whether a digital euro is and should be the appropriate response to them.

(1) Challenging the monetary anchor argument

A digital "monetary anchor" whose need remains unproven

As already explained, the ECB and the Commission argue that the digital euro should, among other things, ensure that a "monetary anchor" in the form of digital central bank money is available, even in the event of a possible marginalization of cash³. However, it is questionable whether the digital euro can, should or must take on this role as an additional or new monetary anchor at all if physical cash remains available – especially when considering the unique features physical cash displays (e.g., non-dependence on Internet and/or electricity networks to exchange value, full transaction anonymity). If cash remains sufficiently available and if there is no reason to believe this could change in the foreseeable future, the anchor function of central bank money – being available and convertible 1:1 with commercial bank money such that the value of the euro is guaranteed and monetary policies can be conducted – is not in danger and the creation of an additional anchor is ultimately unnecessary and expensive.

A physical monetary anchor which remains unchallenged by private digital money

For as long as the Commission and the Eurosystem credibly assure citizens in the euro area (1) that their deposit holdings at commercial banks are safe and (2) that physical cash will remain available and backs it up with appropriate measures (e.g. adequate opportunities to withdraw cash) so that convertibility of commercial bank money into cash will remain even if demand falls, the anchor function is not at risk.⁴ In Sweden, where physical cash now represents less than 10% of all retail payment transactions,⁵ no doubt is weighing on the value of the krona, i.e., the convertibility of digitalized commercial bank money with central bank money is still 1:1 despite the absence of Swedish central bank digital money in the digital space. In 2023 again, the Riksbank delayed the introduction of the e-krona, emphasizing an "insufficient social need".⁶

Alternatives exist to a retail central bank digital currency to ensure monetary anchoring in the digital space

² ECB (2023), Shaping Europe's digital future: Towards a digital euro, Introductory remarks by Fabio Panetta, Member of the Executive Board of the ECB, before the Committee on Economic and Monetary Affairs of the European Parliament, Brussels, 4 September 2023.

³ Neither the ECB nor the EU Commission want to actively push this. On the contrary, they are in parallel reinforcing legal tender on cash in the euro area with a complementary regulation.

⁴ Both the ECB and the EU Commission also emphasize at regular intervals that they do not want to prepare the ground for a possible further decline in demand for cash. On the contrary, they constantly emphasize that they do not want to abolish cash and only want to implement the digital euro as a supplementary means of payment. And also the proposed regulation on legal tender of euro banknotes and coins [COM(2023) 364] aims to maintain the status of cash as legal tender in practice also in the future and to ensure easy access to cash.

⁵ Riksbank (2020), Cash is losing ground. Cash payments represented 9% of the total volume of transactions already in 2020.

⁶ Riksbank (2023), <https://www.riksbank.se/en-gb/payments--cash/e-krona/>.

Finally, even if cash disappears in the medium term, and with it the monetary anchor, the introduction of the digital euro is not without alternative. Instead of a new state offer, measures could also be taken to improve the reliability of commercial bank digital money. However, a thorough examination of such alternative measures – like extending depositor protection and/or implementing measures to enhance the stability of the payment means providers – is not even being considered.

(2) Challenging the argument on fierce competition from public and private payment means (from third countries)

Regarding the postulated increasing competition from private and, in the future, also public means of payment, especially from third countries, it can first be stated that both the ECB and the Commission do not seem to trust the European payment service providers to build a strong private European alternative. As a reaction to these developments, they immediately present a new public means of payment in the form of the digital euro, since, from their point of view, only such a means can compete with non-European offers and secure Europe's "strategic autonomy". However, it is questionable whether the goal of stimulating competition can be achieved with this offer.

A marginalized digital euro with no added value...

Firstly, a digital euro can only stimulate competition if it offers real added value for its users compared to existing offers or if its legal tender is strong enough to capture market share so that the competition must respond accordingly. However, whether it can deliver this added value is questionable. Many of the functionalities of the digital euro that are likely to be relevant for users in their everyday lives – e.g. enabling low-cost, instant, user-friendly, secure and cross-border payments – can also be mapped by the private sector – certainly with a better execution -, and if not today, then in the near future⁷. At the same time, unlike the digital euro, private payment solutions are regularly not affected by restrictions - e.g. holding limits, interest rate bans - that limit the usability and attractiveness of the digital euro. In the case of other functionalities that could give the digital euro an increased utility value – e.g. its absolute reliability, broad acceptance – it remains open whether these are perceived by the users. For on the one hand, other means of payment – not least cash – are also widely accepted in payment transactions and on the other hand, commercial bank money in the form of deposits is also comprehensively protected by law within the framework of deposit insurance.^{8,9}

... or on the contrary a successful digital euro undermining the level playing field and innovation

Secondly, instead of stimulating competition, a digital euro could also trigger cut-throat competition. This is because the incentives for private players, both from third countries and from the EU, to promote their own payment solutions, which have nothing directly to do with the digital euro, are not necessarily likely to increase through its introduction. This is all the truer as competition is being conducted by unfair means. In contrast to private companies, the ECB and the Commission are in a position, with the support of the law, to lower the barriers to market entry for their product to such an extent – see obligation to accept, obligation to offer, fee limits – that the level playing field is not maintained. With the ECB, a competitor enters the market that can position its product – the digital euro – in the market via channels that are not open to private companies. Furthermore, there is so far no obligation for the Eurosystem to run a profitable business out of the digital euro: this is very unfair to private actors which cannot benefit from unlimited taxpayers' money in this context. This might disincentivize private actors to further innovate in the retail payment sector in the EU. However, if the incentives for private players to continue to place their own innovative payment solutions on the market decline, this is certainly not a strengthening of Europe's strategic sovereignty.

Hence, the introduction of the digital euro inevitably gives rise to conflicting goals. The ECB and the Commission have stated that the digital euro will not replace cash as a means of payment, but only complement it¹⁰ and that they do not want to displace existing private means of payment (no "crowding out")¹¹. At the same time, they want to achieve a certain market penetration of the digital euro. However, it is hardly realistic that such penetration can succeed without substitution effects. The success of the digital euro is inevitably linked to the failure of other means of payment in this very mature market.

⁷ In particular, the "European Payment Initiative" should be mentioned here, which aims to establish a uniform European payment procedure.

⁸ If the fail-safe nature of the digital euro were decisive as a "selling point", this argument would also have to apply to fail-safe cash today, the demand for which is nevertheless declining.

⁹ See also [Directive](#) of the European Parliament and of the Council of 16 April 2014 on Deposit Guarantee Schemes (see also [cepPolicyBrief October 2010](#) and [cepPolicyBrief 12/2023](#)).

¹⁰ See Recital 6.

¹¹ See Impact Assessment, p. 17.

A doubtful need of public-sector-driven competition stimulation on the European retail payment market

Thirdly, the fundamental question arises as to whether an active, state-driven stimulation of competition is needed at all. At any rate, a potential market failure in the payment markets cannot be identified at present. A wide range of different physical and digital payment options is available to all economic participants. Freedom of choice is given, and some even see too much freedom is given as consumers have now a hard time knowing which payment solution they should consider, when paying online for instance. The barriers to market entry are high due to network effects, but do not appear to be too high. Providers are constantly entering the market with new innovative payment solutions. And even if the fears expressed are true, according to which one or a few companies can secure a position of power on the markets, this position turns out to be unassailable and the market entry of new providers is significantly more difficult as a result, then it is the task of competition law to counteract this, if necessary. A state-run competing product as a quasi-preventive reaction to possible future power positions of individual companies cannot be the solution here. Ultimately, there is market intervention without actual market failure. Even more, European retail payment companies are starting to provide a viable private alternative to retail payment giants like Visa, MasterCard, or AliPay: the European Payment Initiative (EPI). This project was stuck for many years. It is now about to be rolled out as a new retail payment solution called “wero” and will rely on European retail payment processing systems such as the Dutch retail instant payment solution iDEAL (that was just bought out the EPI). If the integration of national retail payment systems continues in the euro area, the market would have proven European alternatives can finally compete with extra-European giants without the need for a retail central bank digital currency.

Many costs for uncertain benefits

And fifthly, with the digital euro, the market participants concerned, such as PSPs and merchants, are forced to invest enormous resources in the development, establishment and maintenance of services and products around the new means of payment, without knowing whether the effort is worthwhile for them and without being able to make a free entrepreneurial decision about this. If the effort is worthwhile, they would not have to be encouraged to take it on by means of regulatory steps. If, on the other hand, it is not worth it, for example because they expect little or no demand for the digital euro or because of the capped fees and charges, firstly, resources are unnecessarily tied up that could be used more efficiently elsewhere. And secondly, the market players concerned are threatened with – partly unavoidable – losses, which they will try to compensate for elsewhere, if possible. However, this threatens a variety of cross-financing strategies to the detriment of all those products and services of the market players – also outside the payment markets addressed here – which they may then have to bear and whose market position may be weakened as a result. However, these indirect effects, which the introduction of a digital euro in the proposed form would have, are ignored. This is not very relevant. The procedure should therefore be reconsidered.

1.1.3 Interim conclusion

The ECB and the Commission should refrain from introducing a digital euro at this stage. No market failure can be identified and there are alternatives to the digital euro that are less intrusive, do not require excessive market intervention and do not unduly distort competition in the payment markets. Moreover, there is no immediate added value from the digital euro that could justify its expensive implementation. Even individual representatives of the ECB seem (still) to have difficulties in recognizing such added value when they must search desperately for a "convincing narrative" for an introduction of a digital euro.¹² Finally, the value of having a sovereign European infrastructure for retail payments is hard to assess and does not help shape a convincing narrative either.

Despite this rather negative conclusion, the work on designing a retail CDDB as kind of a “back-up infrastructure” should not be stopped. There might be future developments that may necessitate having a digital currency to guarantee European independence over retail payments, e.g., in case of geopolitical turmoil with other blocs like the US or China. But the feasibility and viability of the digital euro project remain unsatisfying at this stage.

In the following, the various regulatory measures that are planned for the introduction of the digital euro will be discussed in greater detail.

1.2 Granting the digital euro the status of legal tender

Motivation for a digital euro legal tender

¹² OeNB head Holzmann: Still a lot of convincing needed for digital euro, Die Presse, 07.09.2023, available [here](#).

One of the main elements of the proposed Regulation is the intention by the Commission to grant the digital euro the status of legal tender.¹³ With granting that status, the Commission intends to help the ECB make its digital euro project a successful one.¹⁴ This is because, otherwise, both merchants and PSPs would be completely free in deciding whether they would want to accept the digital euro, invest in the respective infrastructures necessary for its usage or in any services provision around the digital euro. Clearly, they would only do so if they see any benefits as compared to any other means of payment. Obviously, the Commission does not see those benefits large enough to ensure a voluntary and broad take-up of the digital euro.¹⁵ Hence, awarding the digital euro with a legal tender status may be a logical step from a political perspective but also signals that the Commission does not believe in an easy adoption of the digital euro which shows a lack in political conviction in the strengths of the digital euro as a future payment means.

Limits to the success of granting a digital euro legal tender status

However, granting the legal tender status is not an economically sound option.

First, a payment means that does not seem viable by itself and without legal underpinnings should not be brought to market. Like any other payment solution, the digital euro should fulfil the three characteristics: desirability, feasibility and viability.

Second, the level playing field with private means of payment is no longer ensured putting the latter on an unequal footing in the competition for users and undermining their incentives to enter, respectively stay in the payment's markets.

Third, it strongly interferes with the freedom of contract as the respective market actors, in particular merchants and PSPs, are not given the chance to stay away from accepting the digital euro, even in case, for instance, users demand for the digital euro is low and losses are predestined.

And fourth, the acceptance obligation that comes with the legal tender status comes at a tremendous cost. As stated in the impact assessment, the overall one-off costs of providing digital euro services, not taking recurrent costs into account, could range between 2.8 to 5.4 billion € for the roughly 4,000 banks in the euro area¹⁶, between 0.8 and 14 billion € for merchants already accepting electronic payments and up to 2.7 billion € for all the other merchants without point of sale (POS) terminals¹⁷. Hence, considering all one-off costs, the cost for banks and merchants could range from between 6.9 and 23.4 billion €. With respect to recurring costs, the Commission states that they cannot be assessed for banks at this stage, while they could reach 0.7 billion € per year for merchants without POS terminal and 160 million for those with such a terminal¹⁸ [see also Figure 1].

¹³ Since the Council Regulation ([EC No 974/98](#)) on the introduction of the euro, legal tender has no longer been mentioned in European legislation. With the proposed Regulation and the proposed Regulation on the legal tender status of euro coins and banknotes [COM(2023) 208], the Commission displays, for the first time again, strong legal provisions to implement public means of payment and strengthen the use of the euro in general in the euro area.

¹⁴ Already in 2020, the Commission expressed, in its Retail Payment Strategy [COM(2020) 592, see [ceplinput 1/2021](#)], support for the issuance of a retail CBDC and indicated its willingness to work closely with the ECB in this regard.

¹⁵ This is reinforced by a statement of the Commission emphasizing that “the Issuance of a digital euro without granting legal tender status could [...] result in a limited take-up by users” [Impact assessment, p. 50].

¹⁶ Impact assessment, p. 61.

¹⁷ Impact assessment, p. 54.

¹⁸ Impact assessment p. 54 and 61.

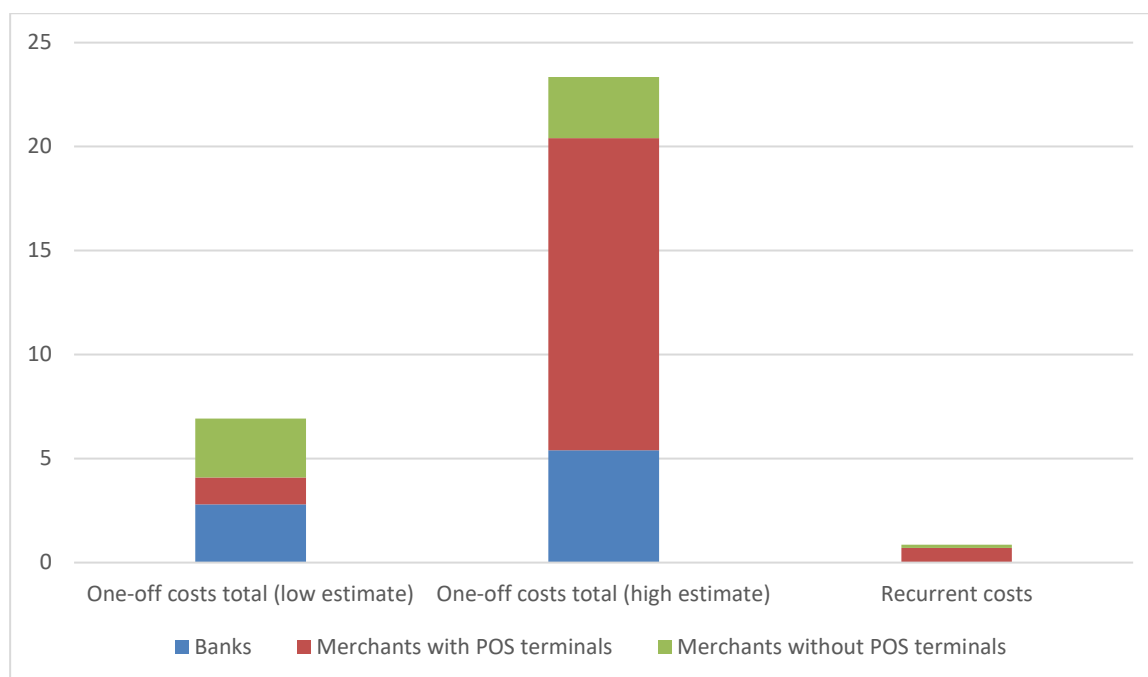
Figure 1: One-off and recurring costs of the digital euro legal tender (in billion EUR)


Figure 1: One-off and recurring costs of compliance with the digital euro legal tender [Source: Impact assessment]

All those costs must be outweighed against the potential benefits for those market actors in adopting the digital euro that are, however, hardly visible as of today, as they may only recoup the necessary investments, for instance, by taking fees from users for non-basic digital euro services or by exploiting value from data gathered providing digital euro services.

In conclusion, the Commission should stay away from establishing a legal tender status for the digital euro. Market forces should decide upon whether the digital euro is a payment means worth investing in or not. If the legislature sticks with the legal tender status, PSPs and merchants should at least have the chance for a phasing-in such that implementation costs can be smoothed over time.

Scope of legal tender derogations

Furthermore, the legislature should rethink its list of derogation to the legal tender status. It seems arbitrary to grant exemptions with respect to the mandatory acceptance of the digital euro based on a randomly chosen number of enterprise employees or balance sheet totals. Such exemptions, while providing relief for small enterprises, unnecessarily distort competition between excluded and included companies and provide wrong incentives in this regard. Instead of number-based exemptions, the legislature should allow merchants – irrespective of their size – to refuse acceptance in cases such as when acceptance (a) is not economically viable or (b) customer demand is negligible. In case users value the digital euro as a payment means, merchants may have a self-interest in offering such payment option. And in case a merchant still does not want to allow for digital euro payments, users always have the option to change their merchant in a free market economy.

What is more, there are no comparable number-based exceptions for acceptance of euro cash.¹⁹ Thus, interestingly, there seems to be no consistency between the current monetary anchor (euro cash) and the potential future (second) monetary anchor (digital euro) with respect to their acceptance obligation and a tendency to promote euro cash vis-à-vis the digital euro. Whether this is a future-proof and sound solution is at most debatable and when considering the aim of the Commission to ensure a monetary anchor role for the digital euro at least astonishing.

1.3 Distribution of the digital euro

Scope of the obligation to provide basic digital euro services inside the euro area

The Commission proposes that banks “must” provide basic digital euro payment services. All other payment service providers (PSPs) “may” offer such services. Furthermore, banks and the other PSPs “may” offer additional

¹⁹ See COM(2023) 364, Art. 5.

digital euro payment services. With this concept, the Commission wants to ensure, on the one hand, that there is a certain guarantee for digital euro users that basic services are available, even if demand is lacking. After establishing the digital euro as legal tender, this is the second essential step to help the digital euro succeed and ensure that network effects can unfold. On the other hand, the Commission wants to allow for competition between a large pool of PSPs, including banks, for digital euro user, without overburdening non-bank PSPs not active in retail business. While it is to be welcomed to allow a wide range of authorized market participants in the payments markets to offer both basic and additional digital euro payment services as this may ensure a wide range of services offerings, broad user choice, lower prices, a competitive market environment and positive financial inclusion implications, it is not advisable to force any of those market participants to actually be part of the market. The envisaged obligation for banks to offer basic digital euro payment services is overshooting. Banks should be able to freely decide whether they want to be a market participant or not. Otherwise, they may be forced to invest monies in an unviable and potentially unprofitable business model. This is not appropriate.²⁰ In case the legislature, notwithstanding, sticks to obliging banks to offer basic digital euro services, it may still think of some derogations. This is because there are many banks, as of today, that do not offer any retail payments or cash services. Thus, being forced to enter the digital euro payments market would be far away from their current business models and expertise. Thus, the scope of the obligation should be limited to banks offering retail products to their customers.

Content of mandatory basic digital euro services inside the euro area

The proposal to oblige account servicing payment service providers (“ASPSPs”) to offer (de-)funding services to non-digital euro payment accounts or to coins and banknotes shall ensure that digital euro users are able to easily exchange digital euro with euro cash or deposits held on bank accounts and vice-versa. Thus, it shall pave the way for an easy and convenient user experience and ensure inclusiveness. However, it comes with several far-reaching structural and practical consequences. First, while such (de-)funding service offering may be feasible, when the digital euro user has a non-digital euro account with the same ASPSPs, it may be more challenging in case he or she has such an account with another ASPSP. Second, it is unclear whether ASPSPs, with whom a digital euro user does not have a contractual relationship must offer him or her such (de-)funding services, and if so, how this can be applied in practice. Third, as digital euro users shall have the ability to (de-)fund their digital euro payment accounts to coins and banknotes, in case their ASPSP already provides cash services, this implies that users must be offered new technological solutions in that regard, be it a new kind of card to be used at ATM machines or else. Hence, ASPSPs that offer cash services must make huge investments in those new and potentially diverse solutions, while having to provide the (de-)funding services to cash for free (as these are basic free digital euro services). This is not appropriate. In case ASPSPs are forced to offer such kind of new infrastructural solutions, they at least must be allowed to recoup those investments in a direct manner.

Usage of the digital euro by foreign users

The provisions stating that digital euro payment services may be provided primary to persons located in the euro area and only secondarily and subject to conditions to other persons – visitors, persons in the non-euro area and in third countries – is reasonable, as the digital euro is first and foremost a project for the euro area. A lighter “usage” regime in non-euro countries as compared to within the euro area would, for instance, be unintelligible. However, some regulations in this regard call, at least, for clarification. In particular, the provision granting the ECB the power to restrict access and use in time of the digital euro to former residents and visitors of the euro area must be specified more precisely. Certainly, the Commission wants to limit the risk of having the digital euro used by those persons without established agreements of central banks from countries outside the euro area or simply without any limitations.

Control of the ECB of the accounts of foreign users

Furthermore, the possibility for the ECB to restrict the use in time of the digital euro could be in contradiction with the forbiddance of the digital euro to be “programmable money”²¹. If only the use of a digital euro account, and not the use of the digital euro itself, is subject to a time restriction, there might be no such contradiction. However, this should be spelled out in detail to erase any doubts. Furthermore, it must be made clear what would happen with any digital euro holdings of those persons if the envisaged time limit has been exceeded. Irrespective of the specified provision in this regard, one may still wonder whether restricting the use of the

²⁰ Astonishingly, the Commission claims that a non-sufficient adoption of the digital euro in case its distribution is voluntary would be a “market failure” [Impact assessment, p. 61]. However, such non-sufficient adoption may simply be a signal that other payment means outperform the digital euro.

²¹ Remember: „Programmable money” is money “with an intrinsic logic that limits each unit’s full fungibility”, i.e., the money can only be used to buy certain goods or services or for a certain limited amount of time [Recital 55, Art. 2 No. 18].

digital euro outside the euro area via – potentially diverse and complex– time restrictions is really necessary, given that the ECB may also be allowed to set specific holding limits that curb any – potentially unwanted – excessive usage of the digital euro outside the euro.

Design of the “(reverse) waterfall” functionality of digital euro accounts

The introduction of a (reverse) waterfall functionality for the digital euro which allows digital euro users to (make) receive online digital euro payments in excess of any holding limits set by the ECB is, in principle, appropriate as it allows for undisturbed payments with the digital euro and ensures a smooth user experience. However, the establishment of the functionality raises several questions. First, the functionality necessitates the digital euro user to have at least one non-digital euro account. Thus, the functionality is not available for any person not having a non-digital euro account at all; therefore, it lacks inclusiveness and may be regarded as indirect pressure to open such accounts. As digital euro users, according to the proposed Regulation, shall not be required to have or open a non-digital euro payment account, this creates an issue when those users with a digital euro account receive a payment exceeding the established holding limit. For them, there is no possibility to automatically transfer those funds.

In this situation, potential choices could be that (1) the payment simply does not go through – which questions the digital euro’s fungibility –, (2) the user gets a time limit to defund or make another payment, which may run counter to the forbidden programmability feature or (3) the PSP must freeze the exceeding digital euro in the digital euro account as long as the user has not defunded them to cash or made a payment to reduce his or her holdings which could damage the trust of users in digital euro accounts and PSPs. Hence, there is no good solution in this situation, even though the first one could be considered the most realistic one. Whatever the chosen solution, there is a need to provide for clarifications by the legislature in this regard. Second, it must be kept in mind that the (reverse) waterfall functionality ultimately will lead to numerous transactions from digital euro to non-digital euro accounts and vice-versa – on top of the initiated simple payment transaction – which, at least, creates some costs for many actors involved. And third, the interlinkage of a digital euro payment account and the non-digital euro payment account selected by the user may raise several privacy related questions as the regulations of the protection of the privacy for digital euro and non-digital euro accounts may differ and keeping those privacy rules separate in case of waterfall transactions between those accounts could prove challenging.

Number of digital euro accounts per individual

Although ensuring wide user choice and increased competition among PSPs for digital euro users are targets worth fighting for from an economic perspective, it seems questionable whether the ability for said users to have more than one digital euro payment account with one or several PSPs, including shared accounts, is feasible, at least in the first few years of issuance of the digital euro. This is because multiple digital euro accounts very much increase complexity and could result in practical challenges. There would be the need for all PSPs with whom the digital euro user has concluded a contract to constantly be able to track whether the ECB’s holding limits are complied with or not. This, in turn, requires a great deal of – not necessarily privacy friendly – information exchange among the involved PSPs. Furthermore, as there most likely be “relatively low” holding limits per user, the interest of digital euro users to open several accounts may also be quite low. Thus, allowing for several accounts may regularly prove superfluous and the costs associated with overcoming the practical challenges could easily be avoided. Consequently, the legislature should, at least in the first years, only allow for one account per digital euro user, while leaving the option for more accounts to a later date and looking for complexity reducing and privacy ensuring solutions in the meantime.

1.4 Financial inclusion

The right for natural persons residing or established in the euro area that do not hold a non-digital euro account to have a right of access to a digital euro payment account with basic features offered by banks (and some designated public bodies) amounts to the establishment of a universal service for such accounts. This should ensure that, even if banks do not (want to) provide such services of their own volition, these services are available to every natural person as they are considered essential services that should be accessible to anybody. At best, such a right may be justified if it gives rise to economic or socio-political benefits – here: the financial integration of certain groups of the population – and the banks are not able to factor these advantages into the account conditions to a sufficient degree. However, whether such a right is necessary at this stage is questionable.

First, the Commission basically bases its decision on the assumption that those account conditions²² will not be straightforward for said groups of the population, even though it has no experience value. This is an unjustified presumption of knowledge. In case problems arise after the adoption of the digital euro, the legislature may still be able to react and force banks to such an intrusive measure limiting their entrepreneurial freedom.

Second, even if said groups may not be able to have access to a basic digital euro payment account, they cannot be regarded financially excluded. This is because, persons that are legally resident in the EU (and thus also the euro area) already have a right to a basic “non-digital euro” payment account irrespective of their place of residence and their financial situation.²³

Third, after the implementation of the digital euro there might be different developments in the euro area Member States. In some, there may be a high demand for digital euro payments accounts while not in others. In case demand is low and not attributable to non-availability of such accounts, the right to an account will not result in any economic or socio-political benefits but will only lead to costs. Thus, the various developments in the Member States may call for diverse answers and for decisions taken on a national level in this regard.

And fourth, while the decision to oblige all banks to offer basic digital euro payments may – meaningfully – avoid distortions of competition among them, it will distort competition vis-à-vis any other PSPs that decide to offer such basic digital euro payment accounts but with the freedom to choose their clients.

1.5 Limits to the use of the digital euro as a store of value

Motivation for limits to the use of the digital euro

The Commission’s proposal to allow the ECB to develop instruments to limit the use of the digital euro as a store of value and to achieve that the digital euro is primarily used as a payment means is, in particular, driven by two fears.

First, the Commission wants to avoid too much interference with the banks’ role as intermediaries between savers and borrowers. If the digital euro proves successful, users may take large amounts of monies held as deposits on their non-digital euro accounts and move them to digital euro accounts. Consequently, banks may lose a cheap and relatively stable funding source.²⁴ This results in the need for them to find new and potentially more expensive funding sources and could have negative repercussions on their capability to provide credit to the real economy.

Second, the Commission fears that unlimited access to and usage of digital euro may have destabilizing effects for the financial system in times of banking crisis. This is because, in case a bank is failing or likely to fail, its clients may be able to withdraw funds from their non-digital euro payments accounts much more easy, cheaper and with a higher speed and exchange them with digital euro than in a world where there is only escape possibilities into cash or to non-digital euro accounts held at other banks (which may prove also risky in a systemic crisis affecting several banks).

Effect of holding limits in digital euro accounts

To counter these dangers, which are certainly not to be dismissed out of hand, the Commission envisages the ECB to set restrictions to the use of the digital euro, in particular, in the form of holding limits. These would block potential substitution effects²⁵ and could ensure the banks’ intermediation role. In the end, the instruments are a – from a political perspective understandable – safeguard to avoid any surprises that may destabilize the EU’s financial system and its today’s structure. However, this caution also comes at significant costs.

First, any access and usage limitations will ultimately undermine the attractiveness of the digital euro vis-à-vis other existing and future private payments means and carries the risk that the aim of the Commission to establish the digital euro as a new/additional available type of central bank currency for anchoring purposes could be endangered.

²² As basic digital euro payment services must, according to the proposed Regulation, be provided for free for persons resident in the euro area, the “price factor” may not be seen as a significant access barrier. On the contrary, said provision may even make the right to a basic digital euro payment account less necessary in the first place.

²³ This right is enshrined in Directive [2014/92/EU](#) of the European Parliament and of the Council of 23 July 2014 on the comparability of fees related to payment accounts, payment account switching and access to payment accounts with basic features.

²⁴ The ECB estimates that there might be deposit outflows in the range of 180 billion € to 6.3 trillion €. This would amount to 0.5% to 18% of aggregate euro area bank liabilities. In some Member States, banks would have to compensate their funding with wholesale funding by more than 20% and in some cases even by up to 50%, mostly by banks relying on deposit funding to a large extent [see Impact assessment, p. 75].

²⁵ The ECB suggests that a holding limit of, for example, 3000 € would limit deposit outflows to a maximum of 1 trillion € [see Impact assessment, p. 75].

Second, digital euro users may – naturally from a simple practical standpoint – not understand, why they can use euro cash – i.e. the current form of public money without remuneration – to an unlimited extent and thus both as payment means and as store of value, while not so regarding the digital euro.

Third, the set-up of limits ultimately increases complexity and leads to practical difficulties – see, for example, the waterfall functionality – that, if not properly addressed, may lead to inconvenient payment transactions processing and damage trust in the functionality of the digital euro.

Fourth, the envisaged limitations will, to a certain extent, be arbitrary as it is questionable that the ECB is able to set justifiable and reliable limits that suit the whole euro area.^{26,27} Fifth, adaptations in the general interest environment or inflation developments, the level of demand of the digital euro or changes in the magnitude of perceived financial stability risks over time may force or incentivize the ECB to subsequently adjust the limitations. This may increase uncertainty for any digital euro users and market participants involved and leads to a regulatory operational environment prone to non-foreseeability.

Instruments to limit the use of the digital euro as a store of value

Furthermore, the proposed Regulation raises several further questions.

First, the proposal of the Commission to allow the ECB to develop instruments to limit the use of the digital euro as a store of value and decide over their parameters and use, does not provide any precision as to what “instruments”, “parameters” and “use” means and what that could potentially cover. This should be made more concrete as to avoid giving the ECB too much leeway in this regard. If not specified any further, it may allow the ECB not only to implement holding and/or transaction limits – i.e. the instruments regularly mentioned in the public debate – but also to adopt other measures like changing the interests to be paid for digital euro holdings. In addition to that, also the criteria for the “parameters” and the “use” of the instruments are not sufficiently well defined and lack any further explanation. For instance, it remains open what defines the “proportionality” of a set “parameter” and in what manner²⁸ or what defines the “usability” of the digital euro as a legal tender instrument²⁹. Thus, to avoid any unwanted surprises after the adoption of the draft law, the legislature should define clear boundaries for the ECB on the scope of potential “instruments”, “parameters” and “uses”.

Second, while the proposed Regulation, on the one hand, states that the use of the digital euro “may” be subject to limits, it, on the other hand, also requires (“shall”) the ECB to develop limiting instruments. Thus, there is unclarity as to whether usage limitations in practice will be obligatory for the ECB to implement or whether the ECB may also decide to only develop them but be able to refrain from implementing them. However, the repercussions of either way are tremendous from various perspectives, inter alia, economically and politically.³⁰ Thus, the legislature, should make explicit that without the adoption of limiting instruments, no digital euro may be issued.

Powers of the ECB and the Commission regarding limits

Third, with respect to setting potential digital euro holding and transaction limits the respective powers of the ECB and the Commission are not entirely clear. In particular, the proposed Regulation states that “any holding limits” that are set by the ECB “shall apply to both offline and online holdings”³¹.

However, it also states that the Commission may set offline digital euro holding limits via the adoption of implementing acts³². Thus, there is uncertainty as to whether the Commission or the ECB will be in charge of setting any digital euro offline holding limits. Furthermore, the provision that any holding limits shall apply to both offline and online holdings could be understood in a way that holding limits for offline and online holdings shall be the same although in the same article it is detailed that they can be different. Besides, it is intriguing that

²⁶ The repercussions of a potential 3.000 € holding limit are certainly quite different when comparing high wealth euro area Member States with low wealth euro Member States.

²⁷ The repercussions of a potential 3.000 € holding limit are certainly also quite different for different banks. For instance, several banks rely heavily on deposits as a funding source, while this is not the case for other. Thus, any holding limit may have both wide and also diverse implications, i.a., on the structure of the banking sector, on competition, on banks’ liquidity position and its specific run risks.

²⁸ Is a holding limit of, for instance, 3.000 € “proportionate”, while not so one of 10.000 € and in why should the former be proportionate and not the latter?

²⁹ For instance, even if the ECB establishes a low holding limit, the “usability” of the digital euro may be ensured by the (reverse) waterfall functionality.

³⁰ For instance, in case the ECB does not provide for any holding limit, the impact on the intermediation role of banks will differ widely compared to a situation where there is a strict and low holding limit.

³¹ See Art. 16 (4).

³² See Art. 37 (5).

the ECB shall apparently be in charge of establishing the online holding limits, while the Commission shall be the one in charge of defining offline transaction and holding limits. This will complexify the interaction between the two institutions and signals that offline transaction and holding limits shall be decided rather democratic on the political level and should not be in the realm of monetary policy.

Fourth, it is not clear whether the ECB shall be able to provide for differentiated limits, for instance, depending on the (type of) digital euro users – legal and natural persons, governments, merchants – or not.³³ If so, the legislature may want to set out conditions for such diverse limiting “instruments”.

Limits for offline payments

Fifth, while the Commission shall, for money laundering purposes, be responsible for setting the offline holding limits, the respective digital euro user “may” set its individual limit, which must be between zero and the amount fixed by the Commission. In this regard, it must initially be clarified, what the consequences would be, if the user decides not to set an individual limit as this decision seems to be voluntary.^{34,35} Furthermore, if each user has his own offline digital euro holding limit, this may indirectly also lead to various different online holding limits, in case the ECB has fixed a certain overall holding limit. Consequently, the ECB would not really have a say in the determining any general online holding limit(s) anymore. As a result, the legislature is in need to provide more certainty with respect of the responsibilities of each of the actors mentioned, i.e., the ECB, the Commission and, also, the users.

Segregation of online and offline digital euros

And sixth, it must be made clear in the proposed Regulation that the Commission wants to segregate online and offline digital euro funds in digital euro payment accounts such that no online payment transaction can be made using offline digital euro and vis versa as to ensure the safety and privacy of offline digital euro payments. However, as such reasonable segregation seems to be envisaged, it must be clear that users may ultimately feel they have two digital euro payment accounts instead of only one, which may go against the aim of having an uncomplicated users’ experience.

Users with multiple digital euro accounts

As digital euro users are allowed to have multiple digital euro payment accounts with multiple PSPs, there is a need for knowledge about the allocation of the diverse holding limits between those different accounts. The proposed Regulation envisages that the digital euro users should be responsible to inform their PSPs about how they want to allocate their “individual holding limit”. For enforcement reasons, PSPs may then have the possibility to check this information also on an online “centralised” platform managed by the ECB (alone or together with other national central banks) which serves as a “single access point”. Again, those provisions raise several issues.

First, the Commission forgets to prescribe what happens in case a user refrains from informing their PSPs.³⁶

Second, the need to decide upon the allocation of a “individual holding limit” suggests that there is only one such limit, while there may in fact be several (online and offline). Thus, it is unclear which limit the Commission refers to.

Third, the question arises how users may be allowed to change their allocation among accounts once decided about a certain distribution.

Fourth, in case both any individual online and the offline holding limits at any PSP are included in the ECB’s database, it is questionable how a privacy friendly solution may look like. Consequently, and as stated already above, the legislature should rethink whether it is advisable to allow users to have several digital euro accounts as this adds much complexity and eventually undermines the functionality of the digital euro as a new payment means.

Digital euro accounts with multiple users

This is further trumped by the possibility for multiple users to share one digital euro payments account with each other, where the holding limits of this shared account shall be the sum of the individual holding limits of each

³³ According to the ECB, “merchants and governments in the euro area would have zero-holding limits” [ECB (2023). Progress on the investigation phase of a digital euro – third report, p. 1].

³⁴ Does the general maximum digital euro offline holdings amount set by the Commission apply in this case or any other whatsoever level?

³⁵ Even when setting the individual offline holding limit would be mandatory, it would not be clear, what the consequences would be, when the user refrains from setting such limit.

³⁶ For instance, are potential digital euro users not allowed to open a digital euro payments account without providing such information to the PSP.

user.³⁷ If implemented in this way, this would further complexify the whole process as PSPs may have to check that each user still sticks to its individual limit(s), triggering the necessity for PSPs to verify who among the potentially many account holders –there seems to be no limit – has actually made or received a digital euro payment. Furthermore, there should be safeguards preventing one single individual account holder to spend digital euro going beyond his or her individual holding limit(s). Hence, also here the legislature should rethink the Commission’s regulatory approach and limit in the number of users of one digital euro payments account to avoid non-practicality of the digital euro as a payment means.

1.6 Limits on fees and charges for using the digital euro

Motivation for limits on fees and charges

The proposals by the Commission to limit various fees and charges for using the digital euro – fees and charges natural persons must pay to PSPs, merchant service charges and inter-PSP fees – are very peculiar. This is because, with such limits, the Commission tries to address alleged market failures that cannot exist because the market does not exist yet. The Commission believes it already knows that the fees and charges will be as high as current fee levels or even higher than for existing means of payments such that a successful market entry of the digital euro as a means of payment is at risk. However, this represents an undue presumption of knowledge as nobody can foresee as of today how the markets may evolve. Furthermore, even if fees and charges were “high” and we would see limited take-up of the digital euro in the euro area, this would simply show that the digital euro as a new payment means is not competitive. Any interference with a market-based price building process simply distorts competition in payments markets and unduly favors one payment means (here: the digital euro) over the other payment means (here: all other existing and future public and private payment means).

What is more, such regulatory intervention in the price building process unreasonable interfere in the freedom to conduct a business and may even lead to a situation where some market actors are forced to live with losses providing basic digital euro services. PSPs, for instance, might feel compelled to cross-finance the provision of those services via price increases – if enforceable – for other services offerings (i.e., higher non-digital euro bank accounts). Consequently, customers of said other services may have to pay for a free of charge digital euro without perhaps even using it themselves.

Also, the argument that the digital euro must be made available free of charge by PSPs³⁸, because euro cash is made available for free as well and there should be a level playing field between the two (public) payment means, is misleading. Clearly many banks allow their customers to withdraw cash from ATMs free of charge. However, this is often both a free business decision and not necessarily a regulatory requirement and it does often not apply to clients of other banks. As a result, the free of charge rule for basic digital euro provisioning can effectively be also seen to promote the digital euro to the detriment of euro cash, without proper justification.

Besides, limiting fees and charges may, especially with respect to the provision of the basic digital euro payment services by PSPs, disincentivizes them to offer such services in a straightforward, innovative and user-friendly manner as they may be reluctant to attract many customers for a service where they may not generate any/sufficient profit. This goes against the targets of the Commission and the ECB to make the digital euro an attractive payment means.

Furthermore, the envisaged rule on free delivery of basic digital euro payment services distorts competition between banks and non-bank PSP. As the latter are not obliged to offer said services at all, they may simply refrain from doing so, concentrate on more lucrative services (related to the digital euro or not) and let banks do the costly business. This inevitably puts banks at an undue competitive drawback. Consequently, neither banks nor non-bank PSPs should be obliged to offer the basic services both at all and free of charge.

As envisaged by the Commission, basic digital euro payment services are meant to be free for many users. However, PSPs may at least be compensated by merchant service charges and inter PSP fees for their relevant costs for the provision of digital euro payments. Nonetheless, the Commission also wants to limit those charges

³⁷ Example: Let’s assume there are three users sharing one digital euro payments account. There is an overall individual holding limit of 3.000 € for each user. Thus, the three users may be allowed to hold 9.000 € altogether. Now let’s assume that user 1 decides in favor of an offline holding limit of 300 €, user 2 of 400 € and user 3 of 500 €. Consequently, there are a maximum of 2.700 € left for online payments for user 1, 2.600 € for user 2 and 2.500 € for user 3. Only in this simple example with three users sharing one account, PSPs must keep track of numerous and various limits specified both by law and by the users.

³⁸ Banks must do so, as they are obliged to provide basic digital euro payment services free of charge. Other PSPs must do so as well, however only when they decide to offer such services. PSPs may also decide to provide no digital euro services at all or only non-basic digital euro payment services.

and fees, as it fears for them being set at a too high level, i. a. due to merchants' obligation to accept the digital euro. Clearly, this fear is not completely unfounded. However, it would not evolve, in case merchants would be free to decide to accept the digital euro. In such case, any merchant could simply switch to other payment means deemed less expensive. The power for PSPs to set "too high prices" would, at least to a certain extent, evaporate.

"Reasonable margins of profit"

Irrespective of that, the Commission wants to limit the risk of having excessive inter-PSP fees and merchant service charges and introduces to this end methods to calculate fees and charges ceilings, based on the relevant digital euro provision costs and the disputable concept of "reasonable margins of profit"³⁹, and on the average fees or charges for "comparable means of payment" from a pool of representative euro area PSPs. The ceilings should then be set at an amount that is the lowest among the two. The setting of such "low" ceilings, that the Commission deems "proportionate", is, however, flawed. Their calculation is complicated, requires bureaucratic data collection and the results are ultimately arbitrary and artificial. There is, for instance no profound reasoning, why fees or charges must inevitable be compared to fees or charges for other existing payment means or why the profit margin must be set according to specific comparisons. The only aim of such restrictions is to keep fees and charges low and to put the digital euro not in a competitive disadvantage as compared to any other payment means, no matter the costs may be of such restrictions for the relevant market actors, in particular PSPs. This is also seen as an incentive to encourage merchant adoption, given the less costly alternative the digital euro shall represent when considering current solutions.

Role of the ECB in monitoring and supervising fees and charges

Beyond the judgement that such limitations are flawed in general, it is not understandable to provide the ECB with the role to monitor and supervise, whether merchants and PSPs abide by the fees and charges limitations. With such a role the ECB may be granted power with respect to price setting by market actors (supervisory and control function), while being the responsible institution that issues the digital euro and being a market actor itself. Such a double role is prone to various conflicts of interests. The ECB may be willing to influence the price setting mechanisms in ways to promote or weaken the attractiveness of the digital euro as it deems necessary. Thus, in case the legislature wants to stick to price restrictions regarding merchant service charges or inter-PSP fees, it should advocate for a more neutral actor controlling "adequate" fees and charges.

1.7 Distribution of the digital euro outside the euro area

The proposals on the necessity to establish agreements between the ECB and central banks from non-euro Member States and third countries on the distribution of the digital euro in those non-euro Member States and third countries are, in principle, reasonable. This is due to the fact, that an unregulated and unlimited distribution of the digital euro in said non-euro jurisdictions may have unwanted and undesirable consequences for, inter alia, financial stability, monetary sovereignty and competition among different currencies ("currency substitutions"), both in the euro area but also elsewhere. Thus, any such agreements may specifically address such issues from the onset and in a manner that would avoid otherwise inevitable conflicts⁴⁰. Ultimately, it would also be odd to regulate and contain the distribution of the digital euro in the euro area, but not to provide an order at least equivalent for non-euro and third countries.

Nonetheless, any such agreement should take global developments with respect to central bank digital currencies in other jurisdictions into account⁴¹ to not unduly restrict the use of the digital euro as compared to those other digital currencies, and, thus, to allow for a strengthening of the global role of the euro and support its attractiveness in international trade.

In reality, chances are low any central bank outside the European Union will be willing to put in place the strict regulatory framework used for the digital euro in its own financial sector. The Commission might think it can set a regulatory precedent with this regulation such that a potential CBDC interoperability rulebook relies on its principles – which would make it in the end rather easy to distribute digital euros outside the European Union – but this is at this stage pure wishful thinking and many alternative retail CBDC infrastructures have been experimented and/or continue to be experimented. The chances are in fact also low that the digital euro

³⁹ The "reasonable margin of profit" shall be calculated on the basis of the PSPs charging the lowest margin of profit representing collectively one fourth of the digital euro distributed in the euro area in a given year.

⁴⁰ A political conflict may, for instance, arise, if one jurisdiction strives for global adoption and usage of its digital euro, not taking any potential spillover effects into account that may harm the international monetary and financial stability of other countries [Public Policy Principles for Retail Central Bank Digital Currencies (CBDCs), G7, United Kingdom 2021].

⁴¹ For instance, the ECB may consider whether certain jurisdiction unilaterally strive for a stronger role in international payments of their digital currencies.

regulation serves as global benchmark for retail CBDCs. Hence, these provisions relative to the distribution of the digital euro outside the euro area might in fact only result in blocking any distribution of the digital euro outside the European Union – central banks from the Eurosystem should indeed have more ease in implementing the digital euro framework requirements. All in all, it is very unlikely any digital euro distribution shall occur elsewhere with these provisions, which can be detrimental to the international power of the euro, and constitutes a comparative disadvantage in the future, with respect to alternative CBDCs.

Finally, the provisions do not address the cases which might be most relevant in the context of digital euro transactions outside the European Union. These transactions are to be considered by a wholesale digital euro project which is only starting and is separate from the retail digital euro project. Yet, China has used its retail e-CNY to perform international trade transactions: the Commission and the ECB should clear the technical link that shall connect the retail and wholesale digital euro projects such that relevant use cases for the digital euro outside the European Union are finally tackled by regulation if needed.

1.8 Digital euro functionalities

Euro cash is a widely accessible and usable means of payment in the euro area. To replicate such success, it is understandable that the Commission wants to make the digital euro a payment means that is simple, easy to handle and accessible for the wide public, to allow it to be an adequate potential complement (or substitute) to euro cash.

Linking digital euro payment account offerings with other offerings

The provision stating that digital euro users shall not be forced by PSPs to also have or open non-digital euro payment accounts or accept other non-digital euro products is meant to avoid that the envisaged free provision of basic digital euro payment services is somewhat circumvented by any bundling or tying practices by PSPs. However, in a free market economy, PSPs should be free to decide how they want to address potential customers. It is not without further ado certain that any PSP will decide on such bundling or tying practices. Competition between PSPs should ensure a wide range of options for digital euro users, such that any ex-ante restriction of services offerings should be redundant.

Linking digital euro payment account with non-digital euro accounts

The envisaged possibility for digital euro users to link their (potentially many) digital euro payment accounts to (potentially many) non-digital euro payment accounts may be satisfying for said users, but raises many practical questions, in particular as there is also the necessity for a stable link to one specific non-digital euro payment account to ensure that the (reserve) waterfall functionality works well. It complexifies the payments, funding and defunding process significantly and leads to a substantial amount of coordination efforts on the infrastructural level. Furthermore, it is not clear, why there is a dedicated need for any specific interlinkage of digital with non-digital euro payments accounts beyond ensuring the operability of the (reserve) waterfall functionality and why no such linkage possibility is foreseen for digital euro payment accounts to be connected to each other, although users are allowed to have multiple of them.

Choice between online or offline payments

Before a payment is initiated, both the payee and the payer must be informed about whether the payment is made online or offline in a proximity payment. While this proposed provision seems both sensible and logical, it is mostly unclear.

First, it raises the question, who is supposed to inform whom. It is only clear that (a) the payer and (b) the payee must be informed. However, it is not clear whether they somehow must inform each other or whether any other actor(s) – for instance, the PSP of the payer or payee or a digital euro wallet provider – must fulfil such task.

Secondly, there is no specification on who has a say in deciding whether an online or offline payment transaction is to be initiated. If it is the payer, there is no reason for him to be informed at all.

Ultimately, such a decision may not lie in the hands of the payee as the legal tender status of the digital euro encompasses both the acceptance of offline and online digital euro payments. Thus, either way the payee must be prepared to receive both online and offline payments. Nonetheless, it may be necessary for him to be informed about the payer's decision.

Conditional digital euro payments

The proposal to allow for “conditional” digital euro payments, i.e. payments that are “instructed automatically upon fulfilment of pre-defined conditions agreed by the payer and by the payee” like payment standing orders

or machine to machine (M2M) payments is primarily meant (1) to ensure that PSPs can make a profit by charging their customers additional fees for such kind of payments (as earning with the provision of basic digital euro services is not foreseen) and (2) to establish a payment means that is able to compete with (future) crypto assets like (global) stablecoins and other payments means that offer such straightforward feature, e.g. by using “smart contracts”.

The Commission believes that allowing for “conditional” payments is necessary to satisfy future payments needs in various fields like in e-commerce scenarios, for metaverse use cases or for M2M transaction in the industry 4.0, is a precondition for innovation in payments in Europe and a must to avoid a dilution of Europe’s industrial competitiveness. It is acknowledgeable that the Commission allows for conditional payments, and asks the ECB to provide measures, rules, and standards in this regard, from the viewpoint that PSPs are enabled to provide such services on top of basic digital euro payment services to give them room for innovation, possibilities to attract (new) customers, great automation potentials and cater for their payment needs. Given that conditional payments may represent one of the greatest sources of profits for PSPs – which otherwise must endure many costs –, the ECB should give PSPs much room for manoeuvre to conceive business models around conditional payments. This is also important to stimulate innovation and competition in digital finance.

However, the second reasoning is less convincing. This is because there is generally enough room for private (European) market actors to provide payment means that include such features by themselves and this is already happening as of today. Any public solution like the digital euro may dampen the effort of those actors to implement their own non-digital-euro-based payment means (including conditional payment features), while increasing their dependency on a successful and wide adoption of the digital euro.

Forbiddance of programmable money

While the digital euro should allow for “conditional payments”, the digital euro should, as proposed, not be “programmable money”. Thus, any limitations on the fungibility of the digital euro are forbidden. This is to avoid the evolvment of restrictions as to “where, when or to whom people can pay with a digital euro” and to prevent the digital euro not being regarded as money, but as a form of a voucher.⁴² Such an approach, as proposed by the Commission, is appropriate. Although a digital euro as “programmable money” would allow for various innovative use cases like enabling end users to control their expenses⁴³, for merchants to offer a specific product for specific users at a specific price for a certain time period or for lenders to monitor how borrowers spend the lend monies⁴⁴, such feature would inevitably involve a great risk in undermining the trust in the digital euro. This is because, it would give both market actors, but also the ECB and governments much power to control digital euro spending by its customers or citizens that would unduly limit their economic freedoms and would open the door for intrusive monitoring and steering of their payment’s behavior.^{45,46} Said otherwise, programmable money would not be money per se, but rather a “voucher”, since it would not respect a fundamental monetary characteristic: full convertibility. Programmable money could not be exchanged at par with euro equivalents like physical cash at users’ will. As a consequence, such “feature” ultimately implies that not each digital euro would have the same value and its interchangeability is not guaranteed.

1.9 Provision of front-end services

Public and private front-end services

To ensure the usability of the digital euro, there is a need for digital euro users to be able to have access to front-end-services. As envisaged by the ECB, such front-end services could take the form of a mobile application (app) that digital users may install on their smartphones. Such an app may, i.a. enable users to manage their digital euro holdings and to initiate or receive digital euro payments. As the PSPs (and not the ECB itself) shall be responsible for the onboarding of digital euro users, it is understandable that they shall also be obliged to provide such front-end services. The fact that PSPs shall have a front-end-service developed by the ECB at their disposal is a good point as it can reduce the costs for PSPs, especially those that are being forced to distribute the digital euro as a public payment means (i.e. banks).

⁴² ECB (2023) The digital euro: our money wherever, whenever we need it, Introductory statement by Fabio Panetta, Member of the Executive Board of the ECB, at the Committee on Economic and Monetary Affairs of the European Parliament, Brussels, 23 January 2023.

⁴³ This could take the form of blocking expenses for alcohol, cigarettes or any other goods or services.

⁴⁴ See also: Cyril Monnet (2023), Digital Euro: An assessment of the first two ECB progress reports, Economic Governance and EMU Scrutiny Unit (EGOV), Directorate-General for Internal Policies, PE 741.508 – April 2023.

⁴⁵ For instance, governments could forbid certain user (group) to buy goods or services that they deem harmful or they could provide for incentives (“nudging”) for user (groups) to purchase some goods or services at a certain point or period of time.

⁴⁶ In this regard, the current discussion of providing refugees with specific payment cards instead of cash and limiting the possibilities for them to spend the funds on the cards for certain purposes (i.e. no remittances to the home countries) serves as an example of what programmability of the digital euro could look like.

However, it must be clear, that PSPs should have the power to decide whether they want to use the ECB's service or services developed by themselves. This is because, those front-end services serve as important entrance doors vis-à-vis potential clients and reveal a possibility of differentiation from other competitors. Any requirements that would disincentivise PSPs to design their own front-end services and would nudge them to use the ECB's service could limit the room for innovative and user-friendly digital euro apps and ultimately user's choice. Furthermore, any front-end service provided by the ECB should provide for basic features only, allowing PSPs to build their own distinguished services on top of them. Otherwise, the ECB could be in too much of a position of being a digital euro front-end services provider competing with private market actors with a competitive edge due to its role. This must be avoided.

Digital identity wallets interoperability with digital euro front-end services

Digital identity solutions, e.g., in the form of an app, enable users, to identify themselves digitally to a third party, make use of services which require identification and/or submit credentials digitally. Currently, there are several private solutions on the market, such as private digital wallets for identification purposes, i.e. Thales, Indemia and Verimi. As part of a revision of the eIDAS Regulation [(EU) No. 910/2014, see [cepPolicyBrief](#)], the Commission proposed in June 2021 to oblige Member States to provide a public digital identity wallet which can be used across borders ("European Digital Identity Wallet, EDIW"). While the negotiations on the proposed Regulation have come to an end recently⁴⁷, the Commission, with the proposed Regulation on the digital euro, already envisages that any digital euro front-end services – irrespective of whether it is provided by the ECB or by a PSP – must be interoperable with or integrated in such to be developed public EDIWs.

While it is too early to profoundly judge on the (technical) feasibility of linking front-end services with yet to be developed EDIWs, it seems not comprehensible to force any private PSP to provide for interoperability and integration with those "public" wallets. Instead, it should be the PSPs' choice, whether they want to offer such interlinkage, use own digital identity solutions or the one's from any other private third party.

First, this would ensure competition among digital identity wallets, not promoting a public solution over potentially more straightforward private solutions. Secondly, it would lower costs as not each PSP would have to invest monies to ensure integration and interoperability with EDIW. And third, it would leave room and incentives for private digital identity providers to still stay within the market and search for innovative solutions.

In case the Commission fears that providers of private wallets may not uphold high safety, security, privacy and data protection standards that it deems necessary to not endanger the users' trust in the digital euro, it should, instead of exposing them at a competitive disadvantage from the outset, set up a rule book for the providers, that they have to abide to, if they wish to provide identity wallets in connection with the digital euro.

Irrespective of that and under all circumstances, the legislature must provide more clarity, both in the ongoing negotiations on the revision of eIDAS Regulation and on the digital euro proposal, how the nexus of the PSPs' digital euro payment services and the many different EDIWs – potentially 27 or more – should look like. Both legal acts do not offer proper answers in this regard that may ensure sufficient legal certainty for the many actors affected.

1.10 Settlement of digital euro payments

Instant settlement of digital euros

As a main feature of the digital euro, the proposed Regulation envisages that any payments with the digital euro must be settled instantaneously. This is to ensure that any digital euro transfer from a payer to a payee is being credited both within seconds and 24/7. Such instant payment functionality is to be welcomed as it ensures that funds are always readily available for re-investment or for spending, and improves, i.e., liquidity and cash flow management. The settlement of online digital euro payments should be performed via a settlement infrastructure adopted by the Eurosystem, most probably relying on the TARGET Instant Payment Settlement (TIPS) system⁴⁸. The settlement of online digital euro payments on Eurosystem infrastructure makes sense in such a way that the digital euro will be a liability towards the ECB and will be issued by the ECB ("central bank money"), so there exists a veritable interest in controlling the process of such money creation and ensuring an accurate settlement process.

⁴⁷ On November 8, the Council and the European Parliament reached a provisional agreement on the proposed Regulation, see [here](#).

⁴⁸ TIPS was launched by the Eurosystem in November 2018. It enables payment service providers to offer fund transfers to their customers in real time and around the clock, every day of the year.

However, it must be kept in mind that settlement at the ECB's level also conjures dangers as much transaction data is being concentrated. Such concentration raises the attractiveness for cyber-attacks and the like and may lead to risks involving unwanted outflows of payments data of individuals. Thus, those risks must be properly addressed. Furthermore, it should not be excluded ex-ante that settlement of digital euro payment transactions in future could also occur on other, potentially more sophisticated, settlement infrastructures than TIPS – included DLT-based infrastructures⁴⁹ - or on evolutions of the TIPS system. As the digital euro may only become real in several years, there could be numerous technological developments that may provide for even better settlement solutions. Thus, it is to be welcomed that the Commission calls the ECB to “seek to ensure adaptation to new technologies”⁵⁰.

Settlement of offline digital euro transactions

On the other hand, the settlement of offline digital euro payment transactions should take place directly in the local storage of the payment devices of payers and payees (i.e., smartphones or cards), without involvement of the Eurosystem and only based on functional and technical requirements adopted by the ECB. The final settlement of those transactions shall occur, as proposed by the Commission, when the records of the digital euro holdings in the local storage devices are updated. As offline payments shall, by definition, take place without any network connectivity, this implies that for such transactions, the TIPS system, an online system, could not be used. Instead, the Commission envisions offline settlement directly within the devices, for instance, via near-field connection or similar technology, on a P2P basis and without any actors standing in between the payer and the payee. Such approach is, in general, reasonable as it tries to replicate the peculiarities of payments with cash, including its property as being privacy friendly, and thus could ensure that also potential users that deem anonymity as a decisive feature of a payment means, would see any value in the digital euro.

However, such approach could also represent many risks as payment transactions that shall occur both “offline” and “in a digital manner” are a new and mostly untested transaction form. Having said that, any technology in this domain may not be entirely safe – e.g. there could be the possibility of hackings of offline digital euro holdings – and may create reputational risks for the Eurosystem. As a result, any settlement system envisaged for offline payments must be properly tested, before implementation.

There is one further important question with respect to the provisions on settlement. The Commission proposes that final settlement for offline transactions should occur at the moment of “updating” the records of relevant digital euro holdings in the local storage devices. However, it is unclear what “updating” means in this respect. It raises several questions: Who is responsible for updating? Does such updating occur instantly? Is there a need for network connectivity for such a process or is it done entirely offline? Are PSPs, providers of the local storage devices and/or the ECB involved in the updating process, and if yes, how? All these questions should be answered properly by the legislature to ensure legal certainty and to ensure that any such process does not lead to unintentional and undesired privacy and/or security risks.

1.11 Privacy and data protection

As stated by the Commission, a high level of privacy was considered, both by citizens and professionals, as the most important feature of a digital euro in its public consultation issued before the adoption of the Commission's Regulation. Thus, it had no choice but to react to such calls to not undermine the success of the whole digital euro project from the outset. This reaction rests, basically, on three pillars.

First, the proposal to have two forms of the digital euro, one being an offline type, where, as with euro cash, only the respective payer and the payee shall have access to private data related to a payment transactions and access for both, PSPs and also the ECB/Eurosystem, is mostly excluded, and one being an online type, where the privacy level should be comparable to current private payment means.

Second, the proposal to not allow the ECB/Eurosystem, even when involved in any settlement processes, to identify specific digital euro users and gain access to their personal payment transaction data.

And third, as PSPs are only allowed to process personal data to fulfil tasks “essential” for the proper functioning of the digital euro, digital euro users would be in charge of deciding on providing any extra data for certain “non-essential” purposes, i.e. deemed necessary by a PSP for the provision of a certain added-value service.

In principle, this three-pillar model is, when considering solely the privacy aspect, acknowledgeable. Efforts to ensure the privacy-friendliness of the digital euro are, at least, visible. Whether these measures are, however, enough to uphold trust among users with respect to their, often raised, fears that the state (here: the

⁴⁹ See last paragraph of chapter 1.6 for more explanations.

⁵⁰ See Recital 64.

ECB/Eurosystem) or PSPs could be able to monitor, supervise and ultimately control their payment behavior, is, however, debatable.

For example, several design features of the digital euro raise certain doubts as to whether private data gathering can be held to a minimum. In particular, the ECB's and Commission's wish to establish limiting instruments (e.g., holding limits), the possibility of digital euro users to have multiple (including shared) digital euro accounts and local storage devices may result in extensive data generating, need for data exchange between all market participants involved and control mechanism. Consequently, the complex conception for the digital euro goes, in part, against the aim of establishing a privacy-preserving digital currency.

In addition to that, there could have been also other options, both for the offline and for the online digital euro. Regarding the former, the proposed approach allows PSPs to, in particular access (private) data on the amounts (de-funded) on the local storage device, the date and hour of (de-)funding transactions, account numbers for (de-)funding and the identifier of the local storage device as well as its holder. Hence, the level of privacy is relatively high. One downside is that the use of the local storage devices is constrained given its "prefunded" nature: Digital euro users always must allocate digital euro to their devices before being able to pay without the possibility to use the stored funds for anything else than proximity payments without defunding.

Thus, the Commission excludes other technological solutions like tokenization⁵¹ and distributed ledger technology (DLT)⁵² systems – by nature online systems – although they could have provided more flexibility while preserving a high level of privacy. Regarding the latter – the online digital euro –, there may have also been options for a higher level of privacy than provided for in the proposed Regulation, which enables PSPs, in principle, to store any personal data related to online payment transactions. In this context, in particular zero knowledge proof protocols⁵³ and blockchain-based solutions⁵⁴ should be considered alternatives worth exploring as they may limit PSPs possibilities to track payments data also with respect to an online digital euro version.

1.12 Anti-money laundering and terrorist financing

Motivation for AML/FT measures related to digital euro

The Commission's approach to tackle money laundering and terrorist financing risks (AML/CFT risks) with respect to the digital euro basically rests on two pillars.

On the one hand, it proposes that, for the "online" digital euro the current regulatory approach for private payment means should simply be replicated. Thus, PSPs must apply the same risk-based customer due diligence measures as they must conduct for private electronic payments. Also, there are equivalent standards in terms of preserving privacy and data protection.

On the other hand, it proposes a less stringent AML/CFT risks approach for the "offline" digital euro, which, in a way, replicates the current approach for euro cash. Here, the PSPs should only be allowed to retain data on (de-)funding processes, but they may not retain transaction data⁵⁵. Ultimately, the Commission has chosen a model that can be summarized as providing for high AML/CFT checks and low privacy/data protection for the online digital euro and vice versa for the offline digital euro.

However, while such model may fit perfectly in the current regulatory payments and AML/CFT frameworks and the recourse to established procedures and processes, i.e. with respect to due diligence obligations, may facilitate regulatory compliance, it is, in several ways, not tailored enough.

First, it is too simplifying as it mistakenly assumes that AML/CFT risks are, in any case, higher for online than for offline payment transactions.

Secondly, whether AML/CFT risks are comparable to (any) private payment means (for the online digital euro) respectively to euro cash (for the offline digital euro), ultimately also depends on the ECB's and Commission's

⁵¹ Payment tokenization is a security technique that replaces sensitive payment information, such as credit card numbers, with a unique random set of characters called a "token". This process helps keep payment data safe during transactions. Stripe, <https://stripe.com/resources/more/payment-tokenization-101>.

⁵² Distributed ledger technology is a decentralized record-keeping technology dedicated to cryptographic validation of record updates. BIS, [what is distributed ledger technology?](#), 09.2017.

⁵³ Zero knowledge proof protocols are a type of secure verification that allows one party to prove the validity of a transaction without having to reveal any personal details, passwords or statements.

⁵⁴ In this context, blockchain-based solutions – i.e., DLT-based solutions - combined to zero-knowledge proof protocols would allow for a maximal level of privacy in this context.

⁵⁵ Thus, it is similar to a situation with euro cash, where PSPs do only have access to data on cash depositing and withdrawals of individuals, but not with respect to cash transaction data.

decisions being taken with respect to any holding and/or transaction limits. If such limits are particularly low or restrictive, AML/CFT risks may also be manageable.

Thirdly, as there likely will be holding/transaction limits for the offline digital euro, restricting the digital euro's ability to become a store of value, those AML/CFT risks may be less than with euro cash that can be held theoretically to an unlimited amount, calling for a less stringent AML/CFT regime for the offline digital euro as compared to euro cash. This would also improve the privacy-friendliness of the offline digital euro version.

As a result, the legislature should provide for a more balanced regulatory approach that is as adaptive as possible with respect to any choices being taken on restricting the usability of the digital euro.

Detention of offline data by PSPs

Furthermore, the provision stating that, with respect to the offline digital euro, transaction data shall not be "retained" by PSPs, the ECB and the national central banks, must be clarified. This is because, said provision may be interpreted in such a way that those actors could be allowed to "access" or "process" data with respect to digital euro offline transactions, but should not retain it. This provision seems in contradiction with the idea that the offline digital euro shall involve prefunded storage devices with which PSPs cannot interact, respectively only with respect to (de-)funding procedures, but not for payment transactions. Consequently, to ensure the privacy of such offline digital euro transactions, the legislature must specify that the provision also encompasses a ban on "accessing" and "processing" of that data.

Role of the Commission

A further peculiarity of the proposed Regulation is that it is not the ECB that decides upon the transaction and holding limits for the offline digital euro. Instead, it is supposed to be the Commission's task to determine such limits via implementing acts. The Commission is of the view that such decision should be taken rather from an AML/CFT-related political than from a solely monetary policy point of view. This is, in principle, acceptable, because the ECB still has the power to decide upon the overall limiting instruments addressing any monetary policy and financial stability related risks.⁵⁶ Nonetheless, even when such offline limits decisions should be, primarily, driven politically, it should not be the task of the Commission to determine those limits. Rather, the Council and the European Parliament should be responsible to set them directly in the proposed Regulation (i.e. on level 1) due their high relevance (see also legal assessment).

2 Legal Assessment

2.1 Competence

The legal basis for the proposed Regulation is Art. 133 of the Treaty on the Functioning of the European Union (TFEU). This provision states that the European Parliament and the Council are empowered to establish the essential actions for implementing the euro as the single currency in accordance with the ordinary legislative process. These actions shall respect the authority of the European Central Bank (ECB) and may be enacted following consultation with the ECB.

While the European Commission is in charge for the regulatory frameworks on a digital euro, the primary responsibility for issuing a digital euro rest with the ECB. Therefore, it is necessary to prove a) if the EU law gives the EU competence to adopt a legal act introducing the regulatory framework for a digital euro and b) if the implementation of a digital euro would be consistent with the ECB's mandate.

EU competence to adopt a legislative act

The legal basis of the Art. 133 TFEU was used only in seldom cases till now. Therefore, the use cases of the Art. 133 as a legal basis were limited. For instance, the Regulation on euro coins⁵⁷ that laid down procedures for authentication of euro coins as well as rules for treatment euro coins that are considered unfit for circulation was based on the same legal ground. However, the dimension of this Regulation that provides rather explanatory provisions on the circulation of coins is not comparable with the proposed Regulation on the digital euro that in fact contains a legal framework for a completely new element in the EU's monetary system. As a matter of fact,

⁵⁶ In particular, the ECB is responsible for setting a potential overall limit for digital euro holdings. Any holding limit set by the Commission for offline digital euro holding must take such overall limit into account.

⁵⁷ Regulation (EU) No 1210/2010 of the European Parliament and of the Council of 15 December 2010 concerning authentication of euro coins and handling of euro coins unfit for circulation. OJ L 339, 22.12.2010, p. 1–5.

the legislative proposal on the digital euro is an unprecedented legislative act in EU law. It can be primarily interpreted as a manifestation of a transformation of a traditional monetary system into a new digital system.⁵⁸

Due to the lack of comparable cases of the Art. 133 TFEU as a legal basis for legislative acts, there is a need for more detailed argumentation to answer the question if the proposed legal framework for a digital euro can be regarded as related to the use of euro as the single currency. There is no legal definition of currency and money in EU law which makes the introduction of a digital euro like a digital form of euro coins and banknotes controversial. The wording of the Art. 133 TFEU does not provide for a clear conclusion that the provision covers the issuance of digital legal tender. Therefore, further provisions of the TFEU must be considered.

Under Art. 3 (1) (c) TFEU, the EU has an exclusive competence in the field of monetary policy for the EU Member States whose currency is euro. The Commission argues that one of the reasons for the introduction of the digital euro is the necessity to safeguard monetary sovereignty and ensure the persistent accomplishment of the monetary union. However, the potential use of a digital euro as a tool for monetary policy hinges upon the specific design and implementation strategies adopted by the ECB. Furthermore, one of the most important potential benefits of the introduction of digital euro would facilitate cross-border payments. In turn, that could further strengthen the role of euro on the global payment market.

Following the systematic approach of the interpretation of the Treaty, there are no provisions that could be considered as prohibiting a digital euro. However, the Treaty was adopted in the time when central bank digital currency was not perceivable. That leads to the terminological difficulties illustrated below and may cause a need to introduce broader interpretations of some provisions or to adjust the terminology. Nevertheless, Art. 133 TFEU constitutes a uniform legal basis for issuance of regulations containing monetary law provisions. The realisation of that power must, nevertheless, respect the specific competence of the ECB. Due to the overarching role in the ECB in the implementation of monetary policy and its exceptional expertise, the contribution of the ECB plays a central role in the digital euro project, including the legislative process.⁵⁹ In other words, the EU is supposed to adopt a legislation on monetary law issues only after the consultations with the ECB and if the ECB agrees to the adoption of such legislation.⁶⁰ From this point of view, we can assume that the EU indeed has a competence to adopt this legislative proposal if the ECB does not go beyond its mandate to issue digital currency.

Consistency with the central bank mandate

The TFEU and the Statute of the European System of Central Banks and of the European Central Bank (henceforth Statute) confer upon the Eurosystem the mandate to oversee monetary policy in the Eurozone. The tasks of the Eurosystem are executed by the ECB that acts in collaboration with the relevant National Central Banks (NCBs).

The main tasks of the ECB are:

- to define and to implement monetary policy (Art. 127(2) TFEU),
- to promote the smooth operation of payment system (Art. 127 (2) TFEU), and
- to ensure the availability of public retail money through the issuance of euro banknotes (Art. 128(1) TFEU).

Defining and implementing the EU's monetary policy is the central task of the ECB. The ECB holds the exclusive right to authorise the issuance of euro banknotes. Consequently, the digital euro project is inherently an undertaking of the ECB. Nevertheless, the ECB would still likely need to collaborate with EU Member States to implement a digital euro, as the EU's monetary policy is closely intertwined with the national central banks of the Eurozone countries. For instance, Member States would need to ensure the integration of the digital euro with their national payment systems and financial infrastructure. Furthermore, the national legislators are also allowed to issue legislative act regarding the mandatory acceptance of digital euro.⁶¹ Some EU Member States have introduced cash ceilings⁶² arguing their necessity for prevention of money laundering, financing of terrorism and tax crimes. Since such restrictions on the usage of legal tender in form of cash are legally unproblematic, the same logic may be also applicable for the limitation of the acceptance of digital euro.

⁵⁸ BIS (2022), Annual Economic Report 2022, III. The future monetary system, p. 75.

⁵⁹ Florian Becker (2021), Article 133, in: Helmut Siekmann (Ed.), The European Monetary Union: A Commentary on the Legal Foundations, p. 482.

⁶⁰ CJEU, Judgment of the Court of 10 July 2003. Case C-11/00. Commission of the European Communities v European Central Bank. ECLI:EU:C:2003:395, para. 110.

⁶¹ This power of Member States was established by the CJEU regarding the exceptions of the mandatory acceptance of euro in cash in the joined cases C-422/19 and C-423/19 of 26 January 2021, Johannes Dietrich and Norbert Häring v Hessischer Rundfunk. ECLI:EU:C:2021:63.

⁶² Those provisions were adopted in the national legislation in Italy, Portugal, Greece, France, Spain, Slovenia, Slovakia, Latvia, and Belgium.

The legislative proposal foresees that the ECB will be equivalently responsible for the issuance of euro in its digital layout. Additionally, the ECB will be in charge for designing an infrastructure for the distribution of a digital euro. By implementing a digital euro, the ECB can enhance its monetary policy tools, allowing for more precise control over interest rates and the money supply or providing digital euro subsidies or incentives for specific economic sectors or regions. The precise functions would be contingent upon the chosen mechanisms and approaches. Although the monetary union currently operates effectively, the EU desires to widespread use of legal tender and to prevent broad public from usage private digital solutions like stablecoins.

The EU case law interprets the Art. 133 TFEU quite broadly. Notably, the European Court of Justice (CJEU) explains that the monetary policy mandate of the Central banks of the European System (ESCB)⁶³ covers i.a. "a regulatory dimension aimed at ensuring the status of the euro as the single currency"⁶⁴. Following this logic, the ESCB task may go significantly beyond the simple operational implementation of the single currency. At the same time, Art. 127 (1) TFEU lays down that the Eurosystem shall act respecting the principles of an "open market economy with free competition" and promote "an efficient allocation of resources". However, the introduction of a digital euro can have negative impact on the competition on the EU payment markets.

Introduction of a new type of digital central bank money confronts the terminological inconsistencies. Primary EU law uses the following terms: "euro", "currency", "banknote" and "coin". To find out how a digital euro suits into this system, it is necessary to illustrate the linkages between these legal categories. Art. 2 of the Regulation on the introduction of the euro⁶⁵ does not provide a definition of euro but solely declares that "euro" is an official name of the single currency and refers to the "European currency unit" that may be divided into 100 sub-units called cents.⁶⁶ Whereas a digital euro without concerns may be in a similar way considered as an official name of the single currency in digital format, the legislative proposal on digital euro does not mention a concept of "digital cent". However, the legislative proposal clearly states the convertibility of digital euro into banknotes but at the same time does not contain any provisions on the sub-units of digital euro. Against this background, additional clarifications to the legislative proposal as well as targeted adjustments to the Regulation on the introduction of the euro are advisable. Even more problematic are the concepts of "banknotes" and "coins".

Currently, public retail money exists only in form of banknotes and coins that are considered as monetary anchors of the financial system. Although there are no legal definition of banknotes and coins, there is a consensus about their general features. Banknotes are generally considered as tangible objects that represent cash.⁶⁷ TFEU grants the ECB the power to issue money only in form of banknotes.⁶⁸ At the same time, Member States are responsible for issuance of euro coins. In fact, the Governing Council of the ECB decides on the technical specification of banknotes and their denomination.⁶⁹ Accordingly, the Council is responsible for the defining the similar specifications for the coins.⁷⁰ Considering digital euro, a distinction between banknotes and coins is not easy to define. It is unlikely that a digital euro may be comparable with both banknotes and coins. Taking into consideration the powers of the ECB regarding the digital euro and its layout in the Commission's proposal, the digital euro may be equivalent only to euro banknotes in accordance with the Art. 128(1) TFEU but not to the euro coins. It is, however, disputable if issued digital euro can be considered as so-called "e-banknotes" that can legally be treated as equivalent to banknotes.⁷¹ At the same time, Art. 2 of the proposed Regulation contains the definition of digital euro as a "digital form of the single currency" and does not address its correlation to banknotes. But is digital euro just a digital expression of the existing paper euro banknotes? Only in that case the exclusive competence of the ECB to authorise the issue of euro banknotes under the Art. 128 (1) TFEU can be unproblematically transferred on the issuance of digital euro. Notably, Art. 12 of the legislative proposal solely states that digital euro has to be convertible with euro banknotes and coins. This wording rather points on the difference between digital euro and traditional forms of money. This can be read as that digital euro is supposed to be a completely new form of money and not a digital representation of banknotes. Also, in the explanatory

⁶³ The ESCB comprises of the European Central Bank and the national central banks of all EU member states.

⁶⁴ See CJEU C 423/19, "Hessischer Rundfunk", ECLI:EU:C:2021:63.

⁶⁵ Council Regulation (EC) No 974/98 of 3 May 1998 on the introduction of the euro. OJ L 139, 11.5.1998, p. 1–5.

⁶⁶ Article 2 of the Regulation (EC) No 974/98 of 3 May 1998 on the introduction of the euro. OJ L 139, 11.5.1998, p. 1–5.

⁶⁷ See Freimuth, in: Siekmann, Kommentar zur Europäischen Währungsunion, 2013, AEUV, Article 128(4).

⁶⁸ Article 128 (1) TFEU states: "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".

⁶⁹ Art. 16(1) of the Statute of the ECB.

⁷⁰ Article 11 of Regulation (EC) No 974/98.

⁷¹ One can argue that in light of evolving technologies the terminology of the Treaty should be broadly interpreted and allow for issuance of banknotes in electronic format. See Benjamin Geva, Seraina Neva Grünwald & Corinne Zellweger-Gutknecht, The e-Banknote as a "Banknote": A Monetary Law Interpreted, 41 Oxford Journal of Legal Studies 1119 (2021).

memorandum accompanying the legislative proposal, a digital euro is called as "as a new form of central bank money available to the general public, alongside euro banknotes and coins"⁷².

As a matter of illustration, according to the Art. 16 (1) of the proposal, the ECB is in charge for setting up the instruments to limit the use of the digital euro as a store of value. It is not clear yet, which instruments will be developed. However, they cannot give digital euro any features that go further than just a digital representation of paper banknotes. In that sense, the digital euro, for instance, cannot be programmable in a way that restricts its use.

Therefore, the digital euro cannot be considered as a digital representation of existing forms of money. To be conform with the TFEU, the digital euro shall not incorporate attributes that extend beyond being a mere digital representation of traditional paper banknotes. Otherwise, certain features may necessitate a Treaty amendment if they were to be implemented. The current version of the legislative proposal provides needs to be revised to ensure the clear interplay with the established terminology. Only when a digital euro is redefined as just a digital representation of a common banknote and the legislative proposal does not treat digital euro as new type of currency, its issuance will conform with the provisions of the Treaty and fall under the mandate of the ECB. In case a digital euro goes beyond a digital representation of banknotes, a digital euro does not fall within the Art. 128(1) TFEU which would require a Treaty review. The current version of the legislative proposal foresees the issuance of a new type of money that exceeds the mandate of the ECB laid down in the valid Treaty. In essence, the Commission does have the competence to issue a legislative proposal for the legal framework for the introduction of the digital euro, but the ECB does not have a mandate to issue digital euro in the setup outlined in the present draft.

2.2 Subsidiarity

The subsidiarity principle justifies supranational intervention when Member States cannot effectively achieve the objectives of an action due to its scale or impact. However, the monetary policy belongs to the exclusive Union competence.⁷³ The digital euro is intended to serve as single currency for the entire Eurozone. From this background, regulatory action can be taken only at the supranational level.

2.3 Proportionality vis à vis Member States

Actions taken at EU level must be proportional to the objectives to be achieved. The EU should not take more extensive measures than necessary to address a specific issue. If a less restrictive measure can achieve the same objective, then the more restrictive one may be deemed disproportionate.

In the context of introducing a legal framework for digital euro, there are no alternative measures conceivable that would meet the objectives of the proposed regulation to the same extent. From this point of view, the proposed Regulation is suitable and necessary for the achievement of the desired objectives. However, the principle of proportionality also requires that a chosen option does not impose any burdens on the individual that overcomes the intended objectives. That constitutes proportionality in narrow sense, or – in other terms – the principle of adequateness and appropriateness. For this reason, it is necessary to prove the balance between cost and benefit of the examined measure. The implementation of the digital euro project will relate to high implementation costs⁷⁴ for market participants and may cause unnecessary disruptions or complications in the financial landscape. At the same time, it is difficult to foresee if the demand for digital euro will be high or how long it would take till the significant share of individuals would use it on daily basis. It is further doubtful that a general trend of decline in cash payments combined with the growing popularity of electronic payments can be considered a valid reason for taking actions to safeguard the euro as a single currency. The absolute majority of individuals in the Eurozone still use cash payments or make transaction with a debit, credit of EC card in euro daily. Moreover, decline of cash transactions in the last years may be caused not only by the wish for more modern digital payment solution. This trend is rather a result of multiple factors. One of them is obviously the pandemic caused by COVID-19 that forced individuals to use mostly contactless payment solutions due hygienical concerns. Furthermore, an increasing role of cash as a store of value that is common in the times of financial distress and uncertainties.⁷⁵ In order to save more cash money, individuals may prefer cashless transactions.

⁷² Proposal for a Regulation of the European Parliament and of the Council on the establishment of the digital euro COM(2023) 369 final, Explanatory Memorandum, Chapter 1.

⁷³ Art. 3(1)(c) TFEU.

⁷⁴ For more details see Section 1.4.

⁷⁵ That was the case in the financial crisis Of 2008, see Aleksander Berentsen and Fabian Schär, 'The case for central bank electronic money and the non-case for central bank cryptocurrencies' (2018) 100(2) Fed Reserve Bank St Louis Review 97–106

Against that background, the fulfilment of the principle of proportionality in a narrow sense stays problematic.

2.4 Compatibility with EU law in other respects

Further considerations arise around the specific powers of the Commission to adjust this legislative proposal. Article 11 of the legislative proposal allows the Commission to introduce via delegated acts under Art. 290 TFEU additional exceptions to the obligation for payees to accept the digital euro which are of a monetary law nature. The Treaty allows the Commission only to amend non-essential elements or supplement legislative acts with non-essential elements using this procedure. The CJEU further emphasized that this power was granted the Commission to deal with technical issues and that all decisions deemed as political fall under the purview of the Union legislator, which comprises the European Parliament and the Council.⁷⁶ In fact, there are no explicit criteria for distinguishing between non-essential, technical decisions that fall under the scope of Art. 290 TFEU and political decisions that require an ordinary legislative procedure. Thus, a matter of political significance must be examined on a case-by-case basis. Any decisions the Commission may take regarding limiting the obligation to accept the digital euro, bear a risk to go beyond pure technical regulation and raises doubts as to whether the Commission exceeds its mandate. Such doubts must, however, be dispelled.

Against this backdrop, the respective Article of the proposed Regulation requires further refinement in such a way that the criteria for any limitations are made more precise. For instance, it is not clear what kind of “monetary law nature” limitations there could be. But even if precision is added, it remains doubtful that such decisions should be implemented via delegated act. To improve legal certainty, the European Parliament and the Council should have their say.

D. Conclusion

Since a couple of years, the ECB has been working on the digital euro project. In summer 2023, the Commission jumped on the train and presented a proposal on a legislative framework on the establishment of a digital euro. However, the ECB and the Commission should refrain from introducing a digital euro at this stage. No market failure can be identified and there are alternatives to the digital euro that are less intrusive, do not require excessive market intervention and do not unduly distort competition in the payment markets. Moreover, there is no immediate added value from the digital euro that could justify its expensive implementation.

Awarding the digital euro with a legal tender status signal that the Commission does not believe in an easy adoption of the digital euro. It is not an economically sound option to establish a new public means of payment that does not seem viable by itself and without legal underpinnings should not be brought to market.

While it is to be welcomed to allow a wide range of authorized market participants in the payments markets to offer digital euro payment services as this may ensure a wide range of services offerings and a competitive market environment, the envisaged obligation for banks to offer basic digital euro payment services is overshooting.

Banks should be able to freely decide whether they want to be a market participant or not. Otherwise, they may be forced to invest monies in an unviable and potentially unprofitable business model.

The envisaged restrictions to the use of the digital euro, i.e., via holding limits set (primarily) by the ECB, can block potential substitution effects and could ensure the banks’ intermediation role. Such instruments are an understandable safeguard to avoid destabilizing effects for the EU’s financial system. However, this caution comes at significant costs. It endangers the wish to establish the digital euro for anchoring purposes, harms user experience, increases complexity and leads to practical difficulties.

The proposals to limit various fees and charges for using the digital euro are a bit odd. With such limits, the Commission tries to address alleged market failures that cannot exist because the market does not exist yet. The Commission believes it already knows that the fees and charges will be so high that a successful market entry of the digital euro as a means of payment is at risk. However, this represents an undue presumption of knowledge as nobody can foresee as of today how the markets may evolve.

PSPs should have the power to decide whether they want to use the ECB’s front-end service or services developed by themselves. This is because, those front-end services serve as important entrance doors vis-à-vis potential clients and reveal a possibility of differentiation from other competitors. Any requirements that would disincentivise PSPs to design their own front-end services and would nudge them to use the ECB’s service could limit the room for innovative and user-friendly digital euro apps and ultimately user’s choice.

⁷⁶ CJEU, Case C-355/10 of 5 September 2012, *European Parliament v Council of the European Union*, ECLI:EU:C:2012:516, para. 65.

The envisaged regulatory approach for ensuring a high level of privacy is acknowledgeable. Efforts to ensure the privacy-friendliness of the digital euro are, at least, visible. Whether these measures are enough to uphold trust among users is, however, debatable. Despite a strong demand among EU citizens for privacy features, there won't, e.g., be any possibility for users to benefit from anonymous online payments. Furthermore, some design features of the digital euro – i.e. holding limits, multiple digital euro payment accounts – raise doubts as to whether private data gathering can be held to a minimum.

The Treaty on the Functioning of the EU (TFEU) merely allows the introduction of a digital legal tender that does not go beyond the digital representation of traditional banknotes. However, the proposal grants the digital euro traits that are distinct from banknotes. Although the Commission has the power to introduce a legislative framework for digital euro, the powers of the ECB are limited by the TFEU. The ECB's mandate does not cover the issuance of a digital euro in the design currently envisaged.

Delegated acts can only be adopted for technical amendments to the Regulation. However, adding further exceptions to the obligation for payees to accept the digital euro, is no such "technical" amendment, but rather a political decision. Such political decision, however, may only be taken by the European Parliament and the Council and cannot be delegated to the Commission.