

Commentary on the Proposal for a Regulation of the European Parliament and of the Council on the establishment of the digital euro

Prepared by

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Introduction

The Digital Euro Association (DEA) welcomes the Proposal for a Regulation of the European Parliament and of the Council on the establishment of the digital euro¹.

The digital euro can be a key driver for future financial services in the European Union (EU) both as a complement to euro banknotes and coins and as a catalyst for innovation and competition in the EU.

Some of the key features that can make the digital euro an attractive proposition are:

- Maintaining currency relevance
- Modernising payment systems
- Encouraging technological innovation
- Supporting digitalization and
- Supporting cash management
- Strengthening resilience in times of crisis
- Competing with privately issued money

However, it is important to note that the implementation of a digital euro comes with challenges that need to be addressed. These include challenges around data privacy, cybersecurity, regulatory complexity, and the potential effects on the banking system. Policymakers must carefully evaluate these challenges to develop a digital euro that can effectively serve its intended purposes and indeed reach its attractive propositions mentioned above. Regulation should play a key role in helping to address these challenges. Furthermore, it is necessary that the proposed regulation on the digital euro is future-proofed and technology-agnostic to maintain its validity when conditions change.

We set out our detailed thoughts on the Regulation below. In particular, we review the chapters of the Regulation and comment on them. This also includes concrete recommendations on how to adjust the Regulation in view of its goals.

¹

https://eur-lex.europa.eu/resource.html?uri=cellar:6f2f669f-1686-11ee-806b-01aa75ed71a1.0001.02/DOC_1&format=PDF

Chapter I

Article 2 (*Definitions*) The following definitions are recommended to be added to **Article 2**:

- “Online holding limit”: is a limit of the value of the online account for the digital euro.
- “Offline holding limit”: is the maximum amount of digital euro that can be held in a local storage device.
- “Transaction limit”: is the maximum amount of digital euro that can be transacted in a single transaction.
- “linked account”: is a non-digital euro payment account that can be connected to a digital euro account. Transactions exceeding the online holding limit are transferred to the linked account (waterfall/ reverse waterfall principle)

Chapter II

Article 5 (*Applicable law*) provides a list of all the pieces of European Legislation that will be integrated with the Regulation. The only piece of primary law which is mentioned is Article 114. No mention of Article 128, paragraph 1 TFEU is found. It is uncertain whether Article 133 of the Treaty should also be included in the legislative proposal.

Article 6 (*Competent authorities*) The article indicates “*The Member States shall lay down the rules on penalties applicable to infringements [...], shall take all measures necessary to ensure that these rules are implemented, including the power of competent authorities to access the necessary data*”.

Competent authorities would need to be able to access a Payment Service Provider (PSP)’s data related to the digital euro to comply with monitoring rules established in the given country. Detailed guarantees must be defined in terms of privacy preservation in this context.

Chapter IV

Article 13 (*Payment service providers*) outlines that PSPs will offer digital euro payment services within the framework of Directive 2015/2366. It is important to highlight that, when using these services, users will establish a contractual relationship with the relevant PSP, not with the ECB or any national central banks.

The ECB reserves the right to prevent visitors and former EU residents from using the digital euro (**Article 13-2**). This provision conflicts with the free use of the single currency (**Paragraph 84, page 37**). It is unclear which circumstances would justify these specific restrictions.

As per **Article 13-2 and 13-3**, funding and defunding of digital euros should also, besides using bank deposits, occur directly with cash and banknotes. However, developing infrastructure that supports such features will incur further costs for PSPs and the Eurosystem. Furthermore the funding/defunding process is not detailed, including exchange rates, or potential fees that may apply during the process.

Article 13-4 introduces automatic defunding of digital euro accounts that exceed the limit to a non-digital euro payment account. However, it is not clear yet what will happen when the user does not have a linked non-digital euro account to top-up the transaction value or receives funds in the digital euro wallet that exceed the holding limit. Clarification is required regarding what might occur in such instances. Additionally, the privacy of payments is debatable if they need to be tied to a non-digital euro account which contains all a user's identity data.

Article 13-7 As per this article, users will have the option to open multiple digital euro payment accounts with the same and/or different PSPs. However, if they choose to do so, the total amount held across all digital euro accounts cannot exceed the individual holding limit in line with **Article 16**. The onboarding PSP will need to verify if a prospective customer already has digital euro accounts and the corresponding balance in these accounts to determine whether the customer has remaining unused balances. The following will have to be determined:

- Would the accounts be updated in real time?
- Would PSPs only have access to these balances during the registration or at all times to ensure that the individual holding limit is at no point exceeded?
- How would the registration with various PSPs be synchronized?

Article 14 (*Access to the digital euro in Member States whose currency is the euro*)

PSPs will offer basic services for using the digital euro. The provision of these basic services will incur costs, however PSPs, according to the regulation, will have to offer these for free. The provision of these free basic services would also contribute to advancing financial inclusion in the Union. It remains uncertain as to who will bear these costs. Furthermore PSPs are allowed to offer additional digital euro payment services. It is unclear who will define the costs for these additional services.

Chapter V

Article 16-1 (*Limits to the use of the digital euro as a store of value*) indicates that the ECB must develop instruments to limit the use of the digital euro as a store of value and decide

over their parameters and use. No precision is brought to what “instruments”, “parameters” and “use” mean in this context. The following question remains unanswered:

- If there are holding limits as discussed in the article, will it imply transaction limits as well (they will for offline transactions in **Article 37-5**)?

The Commission should request the ECB to provide a clear methodology for the management of the holding limits and how this would operate.

Article 16-4 It is interesting to observe that the ECB, according to the Regulation, will be in charge of establishing the holding limits for online digital euro accounts, while the Commission will define transaction and holding limits for offline digital euro accounts (**Article 37-5**). This will likely complicate the interaction between institutions. Especially considering that Article 16-4 states *“Any holding limits on digital euro payment accounts adopted pursuant to paragraph 1 shall apply to both offline and online holdings.”*

It is unclear how the ECB will be able to enforce holding limits for both online and offline payments without accessing real-time user data to determine whether other holdings currently exist. Additionally, there's the consideration of whether there should be a connection between online and offline payment accounts.

Article 16-6 indicates that users should inform PSPs themselves about other digital euro accounts held elsewhere (if applicable) and how the individual holding limit is to be allocated between these different euro payment accounts. Nevertheless, PSPs will have to verify this information, certainly on an online platform managed by the ECB or another institution (**Article 35-8**). This platform needs to offer privacy guarantees such that PSPs cannot access user data unless it relates to digital euro balances. It is also questionable whether such a platform should be controlled by a centralized entity or realized on a PSP level (refer to Chapter VIII) or be based on a distributed ledger.

Article 16-7 notes that (1) it should be possible for multiple users to access one unique digital euro account and (2) that the holding limit of this account should be the sum of individual holding limits allocated between the different digital euro payment accounts. Controlling the holding limits for each user might prove challenging for PSPs. A rulebook on how individuals with multiple accounts, multi-user accounts, and how holding limits would be controlled and implemented, should be developed towards ensuring a pleasant user-experience.

Article 17 (*Fees on digital euro payment services*) - The proposal encourages the use of low service fees. The article suggests that a *“reasonable margin of profit”* should be aimed for by PSPs, but this term could be open to various interpretations. To protect the digital euro user and to prevent misinterpretation, clarity should be brought to this term.

Articles 17-3 and 17-4 grant the ECB oversight powers that typically fall outside their ordinary functions such as being the authority to which PSPs (which would include banks) should report regarding fees. A potential solution might be for the European Banking Authority (EBA) to set regulations regarding the fee structure. The EBA shall regularly monitor the information that is relevant for the purposes of the amounts referred to in paragraph 2, and periodically publish the amounts resulting from that monitoring with an explanatory report.

Article 17-5 seems to be very complex and could lead to a distorted market. As digital euro payments will be instant credit transfers the same method for calculating fees as proposed in the Instant Payments Proposal (regulation 2022/0341) might be considered. That is “*any charges applied by a PSP on payers and payees in respect of sending and receiving instant credit transfer transactions in euro shall not be higher than the charges applied by that PSP in respect of sending and receiving other, corresponding, credit transfer transactions in euro.*”

Chapter VI

Article 19-2c (*Distribution of the digital euro to natural and legal persons residing or established in third countries*) outlines that “*intermediaries established in the same country of residence or establishment than digital euro users and payment service providers established in the European Economic Area may provide digital euro payment services to digital euro users residing or established in third countries.*”

This potential may be limited by the commercial incentives and regulatory restrictions. For example, **Article 13** specifies that basic digital euro services will be offered free of charge to natural persons, which may be a source of conflict with different jurisdictional regulation of PSPs. In foreign jurisdictions, this may create a disincentive for foreign PSPs to participate in the digital euro adoption. Further challenges could result between the EU and foreign jurisdictions on matters related to privacy and intended approved or prohibited use-cases.

Article 21 (*Cross-currency payments*) Cross-currency payments will require international cooperation and specific technological agreements, for example, to interconnect the respective payment systems and central banks, including fast payment systems. The digital euro platform should enable account- and token-based or hybrid solutions. A token-based solution, sometimes called a value-based, could facilitate the digital euro's international use.

Chapter VII

Article 22 (*Accessibility and use*) allows each digital euro payment account to be linked to one or more non-digital euro payment accounts. This article seems to contradict **Article 13-4** which states “*payment service providers shall link each digital euro payment account to a single non-digital euro payment account designated by the digital euro users*”. If multiple

linked accounts are foreseen, clear guidelines should be provided about how payment service providers can handle the different payment scenarios.

Article 23 (*Offline and online digital euro payment transactions*) indicates that the digital euro will be available for both online and offline digital euro payment transactions. It is, however, unclear how these offline digital euro payment transactions will operate. Without this detail, it is difficult to comment on the regulation.

Article 24 (*Conditional digital euro payment transactions*) contains some ambiguity related to conditional digital euro payment transactions by allowing the ECB to adopt detailed measures for conditional digital euro payment transactions. However, it does not define the scope or specific conditions under which such transactions would be permitted or restricted. The lack of clarity may lead to uncertainties and potential discrepancies in the implementation of conditional payment features.

Article 24-2 lacks clarity regarding the prohibition of programmable money. The proposal does not explicitly outline the reasons for this prohibition. Further clarification on the rationale for this restriction would help stakeholders understand the ECB's approach and its implications for potential use cases.

Article 25 (*European Digital Identity Wallets*) states that “*Front-end services shall be interoperable with or integrated in the European Digital Identity Wallets*”. The EU ID Wallet is an identity wallet which is still under development. It is therefore still uncertain what the functionalities of the eID Wallet will be and whether they would be compatible with the features of the digital euro, e.g. privacy and offline transactions.

Article 27 (*Dispute mechanism*) suggests the inclusion of dispute mechanisms for digital euro payments. While the ISO20022 message standard already provides well-established and reliable dispute resolution processes for other payment methods like SEPA direct debit (SDD), SEPA credit transfer (SCT), and credit transfer instant (SCTInst), it's advisable to adapt similar mechanisms from the ISO20022 standard for digital euro payments.

Article 30-3 (*Settlement of digital euro payment transactions*) states “*Final settlement of offline digital euro payment transactions shall occur at the moment when the records of the digital euro holdings concerned in the local storage devices of the payer and payee are updated*”

The term “updated” in this context is ambiguous. If it implies that an offline device will eventually connect to the internet, then additional factors concerning the final offline transaction, such as security, privacy, and the risks associated with merging offline and online use-cases, must be addressed.

Chapter VIII

Article 34 (*Processing by payment service providers*) states that “Payment service providers shall implement appropriate technical and organisational measures including state-of-the-art security and privacy-preserving measures to ensure that any data communicated to the European Central Bank and the national central banks or to providers of support services do not directly identify individual digital euro users.” The terms “appropriate technical and organisational measures”, “state-of-the-art security” and “privacy-preserving measures” need to be clarified so that it is clear what is meant by these terms.

Article 34-1a, 3, 4 makes mention of “digital euro accounts” which suggests an account-based digital euro, for which it could be challenging to provide privacy below a certain threshold. More clarity on the exact need for PSPs to settle online digital euro Peer-to-Peer transactions is required, since these transactions could also be executed without the involvement of PSPs.

Article 34-1c - Offline transactions should be possible without the need for registration and de-registration of local storage devices. It is unclear why offline transactions require the registration of a local storage device at all.

Article 35-1d (*Processing of personal data by the European Central Bank and the national central banks*) infers the possibility that the ECB will be able to control data and digital euro users to an extent that gives them undue influence and leaves them vulnerable at the same time, as the volume of data held at the ECB may attract hackers.

Further clarification is also required related to the annexes:

- **Annex III 1 (iv)** states that processing for the purpose of **Article 34-1a** shall be limited to “information on online digital euro payment transactions, including the transaction identifier and transaction amount”. What other types of transaction information are perhaps not explicitly mentioned here? For instance, transaction types (Business-to-Business, Business-to-Consumer, Consumer-to-Consumer), transaction frequency, transaction location, transaction history as well as additional statistics of transactions and market and payment metrics and, could be information that would greatly limit the level of privacy and could therefore be explicitly excluded in the regulation. In particular, the length of a transaction history would be of great interest and should explicitly be limited.
- A similar clarification is needed for **Annex IV 1(ii)** (*information on online digital euro payment transactions*).

Chapter IX

Article 37 (*Anti-money laundering rules applying to offline digital euro payment transactions*) focuses on anti-money laundering (AML)/countering the financing of terrorism (CFT) rules applying to offline digital euro payment transactions. There remains a lack of clarity about data retention. While it seems positive that transaction data is not retained by PSPs or central banks, there may be a need for clearer guidelines regarding the duration and disposal of funding and defunding data as outlined in Article 40 of Directive (EU) 2015/849. Without specific timeframes or disposal requirements, inconsistencies in data management practices could arise between PSPs. It is important to only process data that is necessary for the specific purpose at hand. Once the data is no longer needed, it should be deleted or anonymized. The data retention requirement is consistent with the General Data Protection Regulation (GDPR) which allows for the processing of personal data for the purpose of preventing crime.

Conclusion

We appreciate the proposal's efforts to preserve financial stability and monetary sovereignty, as well as its potential to foster a competitive, efficient, and innovative European retail payment method that complements cash.

It is of vital importance that a digital euro is built on a legal foundation that protects democratic values. In this context, we would like to outline important recommendations that need to be considered before making a final decision on the digital euro. These recommendations include:

1. **Article 16 - Holding limits:** Setting holding limits for each digital euro user requires the information on how many online and offline accounts one has, if this user is sharing one account with multiple users, and how many digital euros are contained in each of these accounts. This requires a control mechanism based on a significant level of personal data and gathered in one single point, which is supposed to be held at the ECB (Article 35-8). It is questionable if this kind of control complies with the privacy-preserving measures.
2. **Article 17 - Fees on Digital Euro Payments:** The complex fee proposal for digital euro payments might not be economically feasible. It is recommended that a fee structure similar to the legislative proposal on instant credit transfer in euro should be considered.
3. **Article 18-20 - International use of the digital euro:** Although the policy objectives of the legislative proposal include international use of the digital euro, its practical

implementation may require significant time due to required agreements among multiple jurisdictions outside the Eurosystem.

4. **Article 22 - Access and use:** The proposal lacks clear instructions for all possible use cases for managing transactions between linked non-digital and digital euro accounts, leading to uncertainties about euro payment transactions.
5. **Article 23 - Offline and online digital euro payment transactions:** It remains unclear if the offline and online digital euro accounts will be connected or not. However, should offline accounts ever establish internet connectivity, this would make the accounts susceptible to privacy and security risks.
6. **Article 24 - Conditional payments:** The proposal lacks detailed conditions and information on programmable money prohibition and these should be elaborated.
7. **Article 34-37 - Privacy:** The proposal mentions privacy-preserving measures, however, this term is not defined and thus it is unclear what is meant by this term nor what this entails.

In general we would recommend a more design-agnostic approach as well as a deeper look into which further regulations and tools could support the definitions and implementation of a digital euro. Furthermore, it's essential to evaluate which competencies and roles should be allocated to specific institutions to avoid ambiguity and unnecessary complexity.

1. **Technical features:** The proposal focuses very strongly on retail payment use cases. It is not clear, however, how far these technical features are designed with the potential of more innovative future use cases in mind, e.g. micropayments, machine to machine payments, programmable payments (without the programmability of money), payment infrastructure for security tokenization use cases. Furthermore, the following should be taken into consideration related to the technical features of a digital euro: interoperability or integration with the MiCA regulation, support for multiple languages, smart contracts, digital wallet interoperability.
2. **Usability and privacy:** Given the complex nature of potential use cases, the development of a high-level rulebook on the functionalities and use cases of a digital euro is suggested to ensure consistency, smooth user experience, and privacy.
3. **Open-source:** To foster trust and privacy, an open-source approach to the digital euro design is recommended, at least granting read-access to the source-code for independent auditors regularly.
4. **Technology archetypes:** The potential impacts of Quantum versus Crypto technology archetypes on various aspects of digital currencies should be taken into consideration.

Generally, we would also like to encourage a more user-centric perspective, when deciding about specific digital euro designs and attributes, as discussed in our [CBDC Manifesto](#). As the European payment market is very competitive, the digital euro needs to have clear value propositions compared to existing forms of money in order to be adopted. Historical evidence from failed CBDC projects, e.g., in Finland and Ecuador, teach us that not considering the perspective of the user sufficiently, can impair CBDC adoption.

We welcome that the Regulation generally has a strong focus on privacy preservation, in particular, for the offline digital euro - even if there is room for improvement as outlined above. Providing a hybrid means of payment that enables both online and offline payments addresses a market gap as well as a digital means of payment that provides cash-like privacy.



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