

# A legal framework for the digital euro

An assessment of the ECB's first three progress reports



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#### **Abstract**

This study assesses the ECB's first three progress reports on the digital euro from a legal perspective. It looks into what key design choices proposed by the ECB reveal in terms of the legal qualification of the digital euro and discusses legal aspects of the infrastructure supporting it.

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# **LIST OF ABBREVIATIONS**

**AML** Anti-Money Laundering

BIS Bank for International Settlements

**CBDC** Central Bank Digital Currency

**CFT** Countering the Financing of Terrorism

CJEU Court of Justice of the European Union

**ECB** European Central Bank

**GBP** British Pound

IMF International Monetary Fund

NCB(s) National Central Bank(s)

**PSPs** Payment Services Providers

**TARGET** Trans-European Automated Real-time Gross settlement Express Transfer system

**TFEU** Treaty on the Functioning of the European Union

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#### **EXECUTIVE SUMMARY**

- The ECB has come a long way in investigating key issues regarding design and distribution of a digital euro. This study assesses some of the design features of a digital euro outlined in the three progress reports and further communications by the ECB to date, focusing on legal issues. It distinguishes between the object of the digital euro (addressed in section 2) and the infrastructure or "scheme" needed for its distribution and settlement (addressed in section 3).
- Holding limits are an important means to manage risks to financial stability during an
  introductory period. However, the proposed threshold of 3,000 to 4,000 digital euros per
  person might prove prohibitively low. The ECB should be ready to raise it over time (and
  potentially even lift it) to meet the public policy objectives that the digital euro is meant to
  achieve.
- The remuneration of the digital euro leads to unnecessary complexity, creates overlap with monetary policy and is at odds with concerns that the digital euro might interfere unduly with banks' deposit-taking business. Wide availability and useability of the digital euro are better ensured through other, more proportionate means, including sufficiently high holding limits, attractive privacy features and legal tender status.
- It is a wise choice to have the digital euro distributed through a trusted set of intermediaries on the basis of a largely existing legal framework.
- To ensure sufficiently wide distribution from the start, supervised intermediaries (or a subset thereof) would likely have to be obligated to provide basic digital euro services. However, little clarity exists so far on how intermediaries would get compensated for the services provided on behalf of the ECB.
- Whether or not to issue a digital euro is for the ECB to decide. The ECB will also be in charge of providing a rulebook for the digital euro infrastructure. The co-legislators' role, on the other hand, is to "recognise" the digital euro and integrate it in the EU's broader legal framework.
- This study puts forward the argument that the ECB could act upon a cumulation of legal bases, including Articles 127(2) and 128 TFEU as well as Articles 17 and 22 ESCB/ECB Statute. While such cumulation would be supported by established CJEU case law, an express Treaty basis would clearly be the first-best solution in the longer term.
- Overall, the objective of ensuring a strong monetary anchor in the financial system should take centre stage. A simple and cash-like design of the digital euro would not only aid that objective, but also reduce legal risk.

#### 1. INTRODUCTION

On 14 July 2021, the European Central Bank (ECB) announced the launch of the digital euro project. During an initial investigation phase of 24 months, which is planned to come to an end in October 2023, the ECB has addressed key issues regarding design and distribution of a digital euro. In three progress reports of September 2022, December 2022 and April 2023, 1 it has set out first "foundational" design choices made by the Governing Council. Moreover, the European Commission intends to issue a proposal for a digital euro regulation, providing a legal framework for an eventual issuance of a digital euro in the summer.

This study assesses some of the key design features of a digital euro outlined in the three progress reports and further communications by the ECB to date, focusing on legal issues. It does three things: Section 2 discusses what "object" the digital euro will be and compares it with the existing categories of money, means of payment and near money. It seeks to answer the question of *what* the ECB will actually issue. Section 3 then turns to the infrastructure necessary for the digital euro (the "digital euro scheme"), addressing the *who* and *how* of its distribution. Section 4 explores against that background the potential legal basis of the digital euro, offering a novel argument on a combined use of Article 128(1) TFEU, Article 127(2) TFEU, Article 22 ESCB/ECB Statute and Article 17 ESCB/ECB Statute.

The aim of the study is to provide input into the ECON Committee's scrutiny of the ECB's investigative work and into the upcoming legislative deliberations on the matter. Sections 2 and 3 contain specific recommendations to that end and highlight, in particular, aspects that have not been (sufficiently) considered in the progress reports yet. Section 4 aims to inform the ongoing debate on the appropriate legal basis for the digital euro's introduction based on what is known about its design so far.

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<sup>&</sup>lt;sup>1</sup> ECB (2022a), (2022b) and (2023).

# 2. FROM "DIGITAL CASH" TO "AN ELECTRONIC MEANS OF PAYMENT FOR RETAIL PAYMENTS"

# 2.1. What type of monetary object will the digital euro be?

In many of its earlier communications, the ECB associated the digital euro with banknotes. The key objective of a digital euro was to make a digital form of central bank money accessible to citizens and firms, also in light of the declining use of cash. By issuing "a digital equivalent of euro banknotes", the ECB would strengthen the monetary anchor function that public money in the form of (physical) banknotes provides today.

More recently, the reference to banknotes has disappeared. The first progress report describes the digital euro as "an electronic means of payment for retail payments".³ That difference is not only one of language, but indicates the "specialisation" the digital euro has undergone from a public money to a mere public means of payment. That distinction is key. Money allows for both the transfer of value in the present (payment function) and the preservation of value over time (storage function). Means of payment, on the other hand, have a limited storage function. The reverse applies to "near money" – a third type of monetary object. The main function of near money is to store value over time, while the means of payment function is limited. As near money is interest-carrying, the stored value increases over time (see Table 1).

**Table 1**: Features of money, means of payment and near money

	Money e.g., banknotes	Means of payment	Near money
Payment function	Yes	Yes	Limited (e.g., bank savings account)
Storage function	Yes	Limited	Yes
Carries interest	No	Limited (e.g., bank current account)	Yes

Source: Author

The ultimate design of the digital euro will determine not only whether it resembles most the specific features of money, means of payment or near money, but also with which existing monetary objects it might primarily compete (e.g., cash, commercial bank deposits, other private-sector payment solutions).

# 2.2. Tools to control the amount of digital euro in circulation

If a digital euro were available to end users also as a store of value, commercial banks would have to compete with the ECB to attract deposits (e.g., by paying more attractive interest). While a digital euro would (likely) have characteristics that distinguish it from commercial bank deposits, it is expected that

<sup>&</sup>lt;sup>2</sup> See e.g. Panetta (2020a) and (2020b).

<sup>&</sup>lt;sup>3</sup> ECB (2022a), p. 2.

they would compete to some extent. A key fear voiced by commercial banks is that the availability of a digital euro would lead to large and rapid outflows of deposits, both structurally and even more so in times of crisis through bank runs into the digital euro.<sup>4</sup>

In the course of 2022, and continuing in 2023, the ECB has conducted internal research and published several studies on the likely implications of a digital euro for bank (dis)intermediation and financial stability. These are concerns that the ECB has to take seriously. It is bound by its mandate to ensure transmission of its monetary impulses, for which it depends on a stable banking system. Moreover, in its capacity as a banking supervisor, the ECB has a genuine interest not to cause the kind of instabilities prudential supervision is meant to pre-empt.

In the first progress report, the ECB reiterates that an excessive use of a digital euro needs to be avoided by design. It suggests that a digital euro should serve users primarily as a means of payment, and that they should not be able to store large amounts of value in digital euros. To that end, the ECB proposes that it be given tools to control the amount of digital euro in circulation, including hard legal holding limits and economic incentive structures (remuneration).

**Table 2**: Potential designs of tools to control the amount of digital euro in circulation

	Limits (quantity-based)	Remuneration (price-based)
Tools to control the amount of digital euro in circulation	Maximum holding limits Differentiated limits (by type of user) Transaction limits	Unremunerated/negative remuneration Tiered remuneration

Source: adapted from BIS (2021), p. 14

#### 2.2.1. Limits to digital euro holdings

No decision has been taken on the precise amount of digital euros users would be allowed to hold. That amount may also depend on the financial and monetary conditions prevailing at the time the digital euro is rolled out and vary over time. However, as ECB Executive Board Member Fabio Panetta indicated in 2022:

"Our preliminary analyses indicate that keeping total digital euro holdings between one trillion and one and a half trillion euro would avoid negative effects for the financial system and monetary policy. (...). As the population of the euro area is currently around 340 million, this would allow for **holdings of around 3,000** to **4,000 digital europer capita**."<sup>7</sup>

This threshold might prove prohibitively low for the digital euro's usability. While it is important particularly during the introductory period to manage risks to financial stability, a holding limit must strike an appropriate balance between curbing abrupt outflows from bank deposits on the one hand

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<sup>&</sup>lt;sup>4</sup> Recent bank failures in the US and Switzerland, however, show that bank runs are already digital and take place at much larger speed than traditional bank runs, without central bank digital currency available.

<sup>&</sup>lt;sup>5</sup> See Adalid et al. (2022); Burlon et al. (2022); Ahnert et al. (2023); Muñoz and Soons (2023).

In the language used by the ECB, there is a need "to curb [the digital euro's] use as a form of investment" (ECB (2022a), p. 9). See also Panetta (2023): "We want the digital euro to be a means of payment, not a form of investment."

<sup>&</sup>lt;sup>7</sup> Panetta (2022) (emphasis added).

and user needs on the other. To achieve its objective as a monetary anchor, a digital euro must be widely available and useable. The Bank of England, for example, proposes a limit of between 10,000 and 20,000 GBP for the digital pound, taking into account that a large fraction (75% or more) of UK income earners could receive their salary in their digital pound wallets without regularly crossing such holding limit.8 The ECON Committee may wish to discuss with the ECB whether it has included similar considerations when determining the indicated preliminary threshold of 3,000 to 4,000 digital euros. In the ECB's proposed scenario, most digital euro users will essentially be forced to maintain a commercial bank account. The higher limits suggested by the Bank of England, in contrast, imply that a large fraction of society could do without a commercial bank account, e.g. by combining their CBDC holding with another near-money investment, such as a money market fund. Whether citizens would opt for that will largely depend on the interest and service offered on deposits by commercial banks. Quite simply, therefore, CBDC with higher holding limits would have a larger disciplining effect on banks. Linking digital euro funds to a commercial bank account ("waterfall" functionality<sup>9</sup>), as the ECB suggests, may alleviate the "operational" problem of crossing limits, but may come with downsides in terms of simplicity of digital euro use. It also reinforces the need for digital euro users to maintain a bank account.

The indicated holding limit of only 3,000 to 4,000 digital euros reveals that the ECB has moved away from a digital euro serving as a "digital equivalent to banknotes". While there are legal limits to payments in cash due to anti-money laundering and combating the financing of terrorism (AML/CFT) concerns, banknotes can, in principle, be used to store value in unlimited amount. Cash will thus likely continue to serve as the main monetary anchor for the time being. However, the introduction of a digital euro will have implications for the use of cash as well and likely (further) increase the costs of making cash available to end users, especially in Member States with already low volumes of cash use. The ECON Committee might want to address with the ECB whether it has analysed and is ready to respond to different scenarios of cash use developments, including by increasing and eventually even lifting digital euro holding limits.

The ECB's third progress report clarified that the holding limits regime would differentiate between individual users on the one hand and merchants and governments on the other. While a uniform holding limit would apply for individual users, merchants and governments would not be allowed to actively hold digital euros at all (zero-holding limit). Incoming and outgoing payments of merchants and governments would be linked to and transacted through a commercial bank account. Transaction limits are part of the discussion on privacy addressed below.

#### 2.2.2. Remuneration

Besides holding limits, or in combination with them, the ECB also advances the idea of building remuneration into the digital euro's design. Remuneration would bring the digital euro closer to a nearmoney investment and further away from cash, which never carried and was never intended to carry interest. Remunerating the digital euro seems counterintuitive in light of the above-mentioned financial stability concerns, as it would increase competition with commercial bank deposits (and other

Bank of England (2023), pp. 80-81. However, the Bank of England also seeks views on a lower holding limit of 5,000 GBP (p. 81).

The so-called (reverse) waterfall functionality would ensure, at the discretion of users, that they can make and receive payments in digital euros in excess of any holding limit set by the ECB through a linked commercial bank account. When receiving a payment, funds in excess of the holding limit would automatically be routed to the commercial bank account. When making a payment, additional funds could be pulled from the commercial bank account to complete the payment in digital euros.

low-risk assets) and, hence, the impact on the banking sector. The ECON Committee may wish to inquire whether the ECB has assessed potential risks for financial stability and monetary policy<sup>10</sup> and balanced them against the advantages of introducing remuneration.

The ECB has investigated in particular the possibility of "tiered" remuneration. <sup>11</sup> A higher interest rate would apply to a first tier of digital euro holdings, to be used to transact payments, while balances above that threshold (the second tier) would be disincentivised by a lower rate. A system in which digital euro holdings would be penalised by negative remuneration would be problematic from a legal point of view. It would have to be assessed carefully in light of the protection of property as guaranteed by Article 1 of Protocol No. 1 of the European Convention on Human Rights and might not be covered by the EU Treaties altogether.

Remuneration would also dilute the distinction between public money on the one hand and monetary policy instruments on the other. By paying (or charging) interest on their holdings of digital euros, the ECB would start doing to citizens what it has so far only been doing to banks (i.e., its monetary policy counterparties). It remains unclear how the ECB would set the remuneration rate in relation to its monetary policy rates. It has also not specified how it would finance remuneration paid on digital euro holdings. Most other central banks appear to discard the possibility of remunerating their CBDC (Sweden and Norway being notable exceptions). <sup>12</sup> **The ECON Committee may want to discuss with the ECB what its motivations for remunerating the digital euro are.** Overall, the wide availability and useability of the digital euro are better ensured through other, more proportionate means, including sufficiently high holding limits (see 2.2.1. above), attractive privacy features (see 2.3. below) and legal tender status or mandatory distribution, respectively.

# 2.3. Privacy – closer to private digital currencies or to cash?

Privacy is another area were the digital euro design might deviate substantially from banknotes. With banknotes, we can make payments and store value anonymously. The ECB makes clear that anonymity is not a viable design option for the digital euro (to the extent technologically possible), for the primary reason that it might be systematically abused for illicit purposes. However, user data could be made more or less private from the Eurosystem on the one hand and (2.3.1.) and from private intermediaries on the other (2.3.2.). In other words, its privacy features will determine how cash-like the digital euro will be.

#### 2.3.1. Privacy of data from the Eurosystem

The first two progress reports establish that the ECB is taking privacy concerns related to the digital euro seriously.<sup>13</sup> With privacy ranking among the top desired features in user surveys, <sup>14</sup> it will have a determining influence on the demand in a digital euro and ultimately its success. The ECB is thus committed to "minimise the Eurosystem's involvement in the processing of users' data". <sup>15</sup> In particular, the system would be designed in such a way that "[t]he Eurosystem would not be able to infer how

<sup>&</sup>lt;sup>10</sup> For a very recent account of these risks, see Lukonga (2023).

<sup>&</sup>lt;sup>11</sup> See, e.g., Bindseil (2020).

See Lukonga (2023), p. 9: "Virtually all countries are considering unremunerated (...) retail CBDC". See also Bank of England (2023), p. 79: "Like a physical banknote, the digital pound would be unremunerated."

ECB (2022a), p. 8: "As approved by the Governing Council, the Eurosystem is committed to provide for the highest level of privacy within the regulatory framework."

<sup>&</sup>lt;sup>14</sup> E.g., ECB (2021); Kantar Public (2022).

<sup>&</sup>lt;sup>15</sup> ECB (2022a), p. 8; see also ECB (2022b), p. 7.

many digital euro any individual end user held nor to infer end users' payment patterns". <sup>16</sup> In contrast to private entities, the ECB has no interest in making – and no mandate to make – a business with individual payment data; it would provide the digital euro as a public good. In addition, it is wise and legally desirable to ensure that systematic surveillance of the payment behavior of individual citizens and firms by the ECB as a public institution is rendered impossible by design.

Most user and transaction data would thus only be accessible to private intermediaries for regulatory compliance (on the role of intermediaries see 3.1. below). The Eurosystem would, however, have access to pseudonymised/aggregate data on the use of the digital euro to perform digital euro related tasks, including statistics, research, supervision and oversight.

What remains unclear from the progress reports and other previous communications is how the ECB intends to monitor compliance with holding limits by individual users of a digital euro (see 2.2.1. above) without having access to individual user data. It could outsource that task entirely to private intermediaries, but may wish to stay in control of it for operational, legal or reputational reasons. Pseudonymisation of relevant data would be another option. However, **the ECON Committee may want to seek clarification on this issue.** 

#### 2.3.2. Privacy of data from private intermediaries

Private intermediaries will play a crucial role in a digital euro ecosystem by acting as direct counterparts for users of the digital euro (see 3.1. below). A key determination the co-legislators will have to make is how transparent user data will be to these private intermediaries. This entails a balancing of users' privacy interests and rights, on the one hand, and the need to minimise the risk that the digital euro is used for illicit purposes, such as money laundering, on the other.

The first progress report sets out different options. In any case, users would have to identify themselves when they start using the digital euro, as part of the so-called "onboarding" by private intermediaries (identity privacy). But different degrees of privacy could apply to their payments (transaction privacy):

- The lowest degree of privacy would apply under what the ECB describes as the "baseline scenario", according to which the digital euro would be treated like private-sector digital solutions, such as payments with commercial bank deposits. In this case, both personal and transaction data would be fully available to private intermediaries to comply with AML/CFT requirements. The progress reports do not discuss whether private intermediaries should be enabled to use personal and transaction data for business purposes, i.e. to optimise their digital euro user-facing services or even other services unrelated to the digital euro (e.g., mortgages etc.). Intermediaries may argue that economisation of user data would compensate them partially for their performance of digital euro-related services (see 3.1. below). This will be an important point for the co-legislators to address in the context of potential amendments to data protection laws.
- The ECB discusses two design options that would allow for a higher degree of privacy for low-value transactions that are also associated with lower risk a "selective privacy" and an "offline functionality" option. Both options would enable a more cash-like experience for users and increase the attractiveness of the digital euro for more privacy-sensitive users, while limiting risks of abuse. The co-legislators would have to clarify what qualifies as "low-value transaction", identifying thresholds for transaction limits and overall spending limits

<sup>&</sup>lt;sup>16</sup> ECB (2022b), p. 7.

**over a specified time period** (e.g., monthly). At the digital euro conference in November 2022, ECB Executive Board Member Fabio Panetta mentioned, by way of example, a transaction limit of 50 digital euros and a monthly spending limit of 1,000 digital euros. <sup>17</sup>

#### 3. DESIGNING A DIGITAL EURO INFRASTRUCTURE

The second and third progress reports give insight into the ECB's latest thinking on how to design an infrastructure to enable the distribution of digital euros to end users and settlement in digital euro payments. This section critically assesses the design choices taken and highlights some challenges and open questions going forward.

# 3.1. Supervised intermediaries and digital euro-related services

In line with what appears to be the best practice discussed internationally, the ECB reiterated that the distribution of the digital euro would happen through "supervised intermediaries", i.e., users would only have *intermediated* access to the digital euro. These supervised intermediaries would have a direct contractual relationship with individuals and firms using the digital euro and conduct a number of functions and services on behalf of the ECB/NCBs. In particular, they would manage user accounts/wallets and payment instruments as well as initiate, authenticate and validate transactions, including all AML/CFT-related checks. The ECB's/NCBs' roles would be confined to the issuance and redemption as well as to recording and verifying all settlements of digital euros, without any direct user contact. The ECB/NCBs would also manage the supervised intermediaries, by providing both a "rulebook" for the digital euro scheme and – presumably – centralised accounts.

In the third progress report, the ECB has confined the set of supervised intermediaries that would be eligible to qualify as participants in the digital euro scheme to payment service providers (PSP) according to the PSD2. <sup>18</sup> That is, in addition to banks, e-money and payment institutions would also be authorised to distribute the digital euro and provide digital euro services. The scope of the PSD2 – which could be amended in the future – would thus make the triage, in principle, of entities eligible to distribute the digital euro and those *a priori* excluded from doing so. The scheme's rulebook would specify the relevant criteria of access to the digital euro scheme, although legislative action will be needed to support the ECB's proposal. <sup>19</sup> This may include amendments to the scope of the Settlement Finality Directive, <sup>20</sup> the Payment Accounts Directive<sup>21</sup> and the PSD2 itself.

The chosen setting has the advantage that it increases the competitive offering of digital euro-related services, while relying on the existing legal framework. However, the precise modalities of distribution are not set in stone yet. In particular, the ECB has not yet communicated whether all supervised intermediaries will get direct access to its balance sheet or whether this access will continue to be confined to banks, while the access of other PSPs would be only indirect. In any case, the ECB would

<sup>&</sup>lt;sup>17</sup> See <a href="https://www.ecb.europa.eu/pub/conferences/html/20221107">https://www.ecb.europa.eu/pub/conferences/html/20221107</a> joint ECB EUC conference.en.html>.

<sup>&</sup>lt;sup>18</sup> Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on payment services in the internal market, amending Directives 2002/65/EC, 2009/110/EC and 2013/36/EU and Regulation (EU) No 1093/2010, and repealing Directive 2007/64/EC, OJ L 337, 23.12.2015, p. 35.

<sup>&</sup>lt;sup>19</sup> Further on that legislative action, 4.2. below.

Directive 98/26/EC of the European Parliament and of the Council of 19 May 1998 on settlement finality in payment and securities settlement systems, OJ L 166, 11.6.1998, p. 45.

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, OJL 257, 28.8.2014, p. 214.

maintain the right to exclude participants when posing a major threat to the infrastructure, like it does in the case of TARGET2.

For all intermediaries, the authorisation to provide digital euro-related services would be based on the payment services that PSPs are licensed to provide under the PSD2. The ECB distinguishes between three types of digital euro-related services:

- (1) core services that all supervised intermediaries distributing digital euro would be required to provide to end users;
- (2) *optional services* provided by intermediaries on a voluntary basis, while supported by the digital euro scheme rulebook and/or back-end infrastructure; and
- (3) *value-added services* provided by intermediaries on a voluntary basis, without back-end support from the Eurosystem.

The core services, including (but not limited to) the opening, operation and closing of digital euro accounts, the funding and defunding of these accounts (by converting digital euros into cash and/or commercial bank deposits and *vice versa*) and the execution of payment transactions, would be mandatory for those PSPs that participate in the scheme. This helps ensure that the digital euro is available to all citizens, including in cases in which intermediaries may find it unprofitable to offer their services.

An open question the ECON Committee may want to take up with the ECB is whether participation in the digital euro scheme would be voluntary in all circumstances (i.e., a system of "opt-in"), or whether (certain) intermediaries would be required to distribute the digital euro. A potential legal tender status of the digital euro would not formally introduce such an obligation, but might serve as an argument for intermediaries to participate in the digital euro scheme. The current understanding of the legal tender concept according to the Commission Recommendation - which might be amended and upgraded by the Commission's upcoming legislative proposal – implies an obligation, in principle, to accept payments in cash. It does not, however, entail an obligation of banks to offer cash services. Nevertheless, even without formal obligation, banks do distribute cash to end users. With legal tender status, the digital euro might more widely be perceived as "real money" with the same standing as cash, supporting its initial uptake. Alternatively, similar to banks' existing obligation to guarantee access to payment accounts with basic features, and so the provide core digital euro services.

# 3.2. Compensation and seigniorage

A related issue is how supervised intermediaries will be remunerated for distributing the digital euro on behalf of the ECB/NCBs. They will have to build up and maintain an infrastructure that is interoperable with the ECB's core infrastructure and meets the common rules, standards and procedures set out in the rulebook of the digital euro scheme. This will generate up-front costs and give rise to operational risks. What is more, intermediaries will compete with the ECB regarding their own private-money payment services and – as far as banks are concerned – the collection of deposits (see 2.2. above). Whether these costs will be compensated for by additional business opportunities in the longer term remains an open question.

<sup>&</sup>lt;sup>22</sup> Commission Recommendation of 22 March 2010 on the scope and effects of legal tender of euro banknotes and coins, OJL 83, 30.3.2010, p. 70.

<sup>&</sup>lt;sup>23</sup> Articles 16 and 17 Payment Accounts Directive.

The ECON Committee may inquire regarding the ECB's views on this and the status of its analysis. Ultimately, a compensation scheme will have to determine who – intermediaries, merchants, the ECB/NCBs and end users – will bear which part of the cost for making the digital euro available. Charging user fees (at least for basic payment needs) is not a good option as it would deter consumers from using the digital euro and move it far away from cash (whose use is free of cost for end users). Fees would also be in conflict with a use of the digital euro as legal tender. The ECB has indicated that using the digital euro for basic payment needs – likely in line with the core digital euro-related services described at 3.1. – would be free of cost for private individuals. <sup>24</sup> Whether merchants would be willing to accept fees depends on the height of those fees compared to fees paid other digital means of payment (e.g., cards) and the extent to which they can expect network effects from investing in a new point-of-sale infrastructure for the digital euro. However, the bulk of costs will likely have to be distributed between the ECB/NCBs and the supervised intermediaries. This distribution will have direct implications for the ECB's own budget and financial independence.

The ECON Committee may also want to ask the ECB how it intends to calculate and attribute "seigniorage" from issuing a digital euro. To distribute banknotes to their customers, banks "buy" these banknotes by paying the face value of the banknotes to the ECB. For that purpose, banks typically borrow money from the ECB or pledge some assets. From the interest it earns on the money it lends to banks and the return it receives on the assets it holds, the ECB earns income, the so-called seigniorage. That system could be replicated for the digital euro, or – more likely – it could be designed differently.

# 3.3. Interoperability

Introducing the digital euro essentially means implementing a legal and technological "core system". Legally speaking, that system will have to ensure that digital euros are convertible at par (i.e., at an exchange rate of 1:1) to cash and commercial bank deposits and can be used interchangeably with them. Any other approach would fall short of ensuring that the digital euro complements cash in providing a monetary anchor for the financial system (see also 4.1. below). Users should be able to exchange digital euros for commercial bank deposits and cash and *vice versa* (in principle) at all times and without friction, as is the case today between commercial bank deposits and cash. Accordingly, the ECB intends to obligate supervised intermediaries to provide funding and defunding services as a core digital euro-related service (see 3.1. above) 24/7.

The ECB is right to contemplate in the third progress report also the international interoperability of the digital euro system to enable (eventually) the cross-border and cross-currency use of the digital euro. The possibility for such interoperability – both technologically and legally – will have to be built into the system already at a relatively early stage of design. The BIS has coordinated some promising explorative work on cross-border interoperability of CBDCs of different jurisdictions. <sup>26</sup> However, the issue is politically sensitive as it will involve decisions as to with which jurisdictions the euro area wishes to explore such cross-border interoperability further.

#### 4. LEGAL BASIS OF THE DIGITAL EURO

The previous sections discussed key design features of the digital euro, as indicated by the ECB in the three progress reports issued to date, highlighting some challenges and raising open questions. This section turns to exploring the implications of these design features for the potential legal basis of the

<sup>&</sup>lt;sup>24</sup> ECB, Q&A, Q6.

<sup>&</sup>lt;sup>25</sup> See Grünewald (2022).

<sup>&</sup>lt;sup>26</sup> BIS (2022); BIS (2023); see also Papapaschalis (2022).

digital euro. Both the ECB and the co-legislators will be involved in the digital euro's introduction. The ECB will be in charge of issuing it and designing an infrastructure or "scheme" for its distribution (4.1.). The co-legislators' role, on the other hand, is to adopt an "enabling framework" that integrates the digital euro in the existing legal framework (4.2.).

# **4.1.** Article 128, Article 127, or both?

#### 4.1.1. Digital euro issuance

A key feature of the digital euro is that it will be public money issued by the ECB/NCBs.<sup>27</sup> When the ECB issues the digital euro, it *creates* a liability on its balance sheet. That act is for the ECB to independently take, driven by its primary objective of price stability. The issuance would occur in addition to (tangible) banknotes the ECB issues based on Article 128 TFEU and the deposits commercial banks hold in accounts at the central bank as eligible monetary counterparties according to the ECB's General Documentation or as participants in TARGET2 on the basis of Article 127(2) TFEU and Articles 17 or 22 ESCB/ECB Statute, respectively.

In its initial report on the digital euro, the ECB stated that it would issue a digital euro based on Article 128 TFEU and Article 16 ESCB/ECB Statute if it "were issued as an instrument equivalent to a banknote". Resort to Article 127(2) TFEU in conjunction with Articles 17 or 22 ESCB/ECB Statute would be taken if the digital euro were designed for more limited use. <sup>28</sup> In other words, these legal bases allow for a different use of the digital euro.

The choice of legal basis will thus in the first instance be informed by the objective(s) the digital euro is to serve. The ECB has repeatedly stated that it primarily aims to strengthen the monetary anchor by preserving public access to central bank money in an increasingly digitalised economy and with the use of cash declining (overall) as a means of payment. The goal is thus to support financial stability and the control over monetary policy implementation, which pertains to the ECB's primary objective of maintaining price stability. <sup>29</sup> The ECB could support other objectives, such as ensuring the EU's strategic autonomy (including monetary sovereignty), promoting the digitalisation of the European economy and financial inclusion, only as secondary objectives and without prejudice to its primary objective of price stability. <sup>30</sup>

The ECB is right to focus on the monetary anchor function of the digital euro. Currently, that function is fulfilled by banknotes that the ECB issues (or authorises for issuance) based on Article 128(1) TFEU. Banknotes supply citizens with easy, cheap and trusted public money. They also provide an anchor for private monies by enabling users to convert these monies into public money at par value. This guaranteed convertibility into the safety of public money ensures that "one euro" in our bank account means the same thing as "one euro" in cash. Because all deposits (and other forms of private money) are ultimately convertible into public money, the currency is uniform. "One euro" deposited at bank A means the same thing as "one euro" deposited at bank B. They are interchangeable, because of the

<sup>&</sup>lt;sup>27</sup> In the following, this study refers to the ECB alone, even though the euro area NCBs might, legally speaking, be the entities issuing the digital euro.

<sup>&</sup>lt;sup>28</sup> ECB (2020), p. 24.

On the ECB's powers to preserve the monetary transmission mechanism, see Case C-62/14, *Gauweiler et al. v Deutscher Bundestag*, ECLI:EU:C:2015:400, para. 50: "Moreover, since disruption of the transmission mechanism undermines the effectiveness of the measures adopted by the ESCB, that necessarily affects the ESCB's ability to guarantee price stability. Accordingly, measures that are intended to preserve that transmission mechanism may be regarded as pertaining to the primary objective laid down in Article 127(1) TFEU."

<sup>&</sup>lt;sup>30</sup> Articles 127(1) and 282(2) TFEU. See also Mooij (2022).

monetary anchor banknotes provide. Ensuring the availability of a monetary anchor in the form of public money available to citizens is thus a task implicitly assigned to the ECB by Article 128(1) TFEU, in addition to the ECB's basic tasks according to Article 127(2) TFEU (Table 3).<sup>31</sup>

Accordingly, Article 128(1) TFEU should serve as the main legal basis for issuing the digital euro as well. This author, jointly with her co-authors, has argued elsewhere that Article 128(1) TFEU can be interpreted such that it empowers the ECB to also issue a digital equivalent of banknotes.<sup>32</sup> This requires that the digital euro mimics the essential features of banknotes, especially by being widely available and useable. The analysis under 2.2. showed, however, that the digital euro – as currently envisaged – would be far removed from the concept of banknotes, including through tight holding limits, remuneration and limited privacy features.

In particular, the ECB has deployed a narrow understanding of the monetary anchor function in its digital euro design. The contemplated holding limit of between 3,000 and 4,000 digital euros per person would significantly restrict the useability of the digital euro. While necessary during an initial adjustment period, aligning the digital euro with banknotes according to Article 128(1) TFEU may require raising these holding limits over time, considering in particular the impact of the digital euro uptake on the use of cash.

The proposed remuneration of the digital euro is even more alien to the concept of banknotes. Banknotes serve as an anchor and thus as a precondition for an effective monetary policy implementation, but are meant to be neutral for that policy. The issuance of banknotes is not a monetary policy instrument *perse*. <sup>33</sup> Remuneration also renders the digital euro unnecessarily complex, whereas banknotes are simple and easy to use. The idea of remunerating the digital euro was intellectually appealing in the early discussions on CBDC designs. As the digital euro is moving towards its realisation, the idea should be retired for good – not only because the added value of remuneration compared or in addition to holding limits is at best unclear, but also because it creates significant legal risk.

#### 4.1.2. Digital euro infrastructure

Contrary to banknotes, the digital euro needs to be supported by an elaborate infrastructure ("digital euro scheme") for its distribution and settlement in digital euro payments, including a governing authority as well as rules and standards applicable to all participants in the scheme (the "rulebook"). This study has discussed some of the design features of that scheme above under 3. According to Article 127(2), fourth indent, TFEU, the ECB is tasked to ensure the smooth operation of payment systems.<sup>34</sup> Article 22 ESCB/ECB Statute gives the ECB broad powers to provide facilities and make regulations to fulfill this task. On that basis, the ECB oversees payment and settlement systems but also operates its own systems, such as TARGET2.

When establishing the digital euro scheme, the ECB may resort to Article 127(2), fourth indent, TFEU and Article 22 ESCB/ECB Statute as well. Under these provisions, the ECB has broad discretion e.g. to determine criteria for access to the scheme and distribute the roles and functions between scheme

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<sup>&</sup>lt;sup>31</sup> See Zellweger-Gutknecht, Geva and Grünewald (2021).

<sup>&</sup>lt;sup>32</sup> Grünewald, Zellweger-Gutknecht and Geva (2021); Zellweger-Gutknecht, Geva and Grünewald (2021); Geva, Grünewald and Zellweger-Gutknecht (2021).

See Grünewald, Zellweger-Gutknecht and Geva (2021). In Joined Cases C-422/19 and C-423/19, *Johannes Dietrich and Norbert Häring v Hessischer Rundfunk*, ECLI:EU:C:2021:63, para. 43, the CJEU confirmed that "Article 128(1) and Article 133 TFEU (...) underpin the singleness of the euro and are a precondition for the effective conduct of the European Union's monetary policy." Dissenting, however, Mooij (2021).

<sup>&</sup>lt;sup>34</sup> See also Article 3.1, fourth indent, ESCB/ECB Statute.

participants on the one hand and the ECB/NCBs on the other. However, Article 127(2), fourth indent, TFEU and Article 22 ESCB/ECB Statute empower the ECB to provide a settlement medium (without store of value and unit of account functions) accessible to eligible participants in a dedicated payment infrastructure, not to issue a digital euro (with legal tender status) to the broader public. The provisions thus enable the ECB to ensure the smooth functioning of the digital euro infrastructure, once the digital euro has been issued.

Still open is how precisely the digital euro will be distributed. Article 17 ESCB/ECB Statute empowers the ECB and NCBs to open accounts "for credit institutions, public entities and other market participants". "Other market participants" would appear to include PSPs other than banks, while it is for the ECB to decide whether it wants to grant these intermediaries direct access to its balance sheet. In a likely scenario, the ECB would decide to run accounts in the name of the supervised intermediaries (or a subset thereof) and the intermediaries would offer and operate accounts/wallets to digital euro users. If the design were such that digital euro users would hold (pseudonymised) accounts with the ECB, Article 17 ESCB/ECB Statute could be amended accordingly in a simplified procedure according to Article 129(3) TFEU.

**Table 3**: ECB objective, tasks and instruments/powers relevant for the digital euro

	Objective	Tasks	Instruments/powers (selected)
Relevant exclusive	Price stability (incl. monetary transmission) Articles 127(1) and 119(2) TFEU	Defining and implementing monetary policy Article 127(2), first indent, TFEU  Promoting the smooth operation of payment	Accounts for market participants Article 17 ESCB Statute  Facilities and regulations regarding clearing and payment systems
competences of the ECB		systems Article 127(2), fourth indent, TFEU	Article 22 ESCB/ECB Statute
		Ensuring the availability of a monetary anchor in the form of public retail money  Implicit in Article 128(1)  TFEU	Issuance of banknotes Article 128(1) TFEU, Article 16 ESCB/ECB Statute

Source: Author

#### 4.1.3. Cumulation of legal bases?

The introduction of the digital euro by the ECB will thus rely on several legal bases: Broadly speaking, Article 128(1) TFEU could serve as the primary legal basis for its actual issuance and Article 127(2), fourth indent, TFEU as well as Article 22 ESCB/ECB Statute and Article 17 ESCB/ECB Statute for the establishment of the infrastructure enabling its distribution and settlement in digital euro payments. There are previous examples of the ECB relying on several different legal bases when taking a specific

measure. The TARGET Guideline,<sup>35</sup> for example, is based "in particular" on Article 127(2), first and fourth indent, TFEU, Article 3.1 ESCB/ECB Statute as well as Articles 17, 18 and 22 thereof. What is new is that the digital euro combines the ECB's basic tasks according to Article 127(2) TFEU with the task of ensuring the availability of a monetary anchor in the form of public retail money, as is implicit in Article 128(1) TFEU.

The CJEU has developed general criteria for the choice of legal basis for acts of the Union, which also apply to the ECB. Where a measure pursues several objectives or has several components, the court adheres to a "centre of gravity" theory, prioritising one main legal basis over the merely incidental other legal bases. The main legal basis – the centre of gravity – is identified on the basis of "objective factors", including the aim and content of the measure at hand. The centre of gravity theory thus allows for a cumulation of different legal bases, by giving precedent to one legal basis over the others. While incidental legal bases can be resorted to, they are considered absorbed by the primary legal basis.

It remains unclear which legal basis would prevail as a centre of gravity in the case of the digital euro. On the one hand, the CJEU could attribute more weight to the act of issuance according to Article 128 TFEU, i.e. the creation of a liability on the ECB's balance sheet. On the other hand, the digital euro could not circulate without a technological and legal infrastructure enabling its distribution and settlement in digital euro payments. In exceptional circumstances, the CJEU allows for a measure to be founded on several legal bases that "are inseparably linked without one's being incidental to the other". That is, if no single centre of gravity can be identified, acts of the Union may be adopted on a dual (or multiple) legal basis, even if this involves a combination of disparate (but not incompatible) procedures.

The choice of legal basis for the digital euro is thus *prima facie* not clear cut. An express Treaty provision empowering the ECB to issue a digital euro and adopt any necessary infrastructure for its operation would clearly be the first-best solution. To provide for legal certainty, while allowing for the necessary adaptability of the digital euro over time, and to protect the ECB's independence, a Treaty amendment should be the preferred course of action in the longer term. In the shorter term, the ECB might rely on a cumulation of different legal bases for the introduction of a digital euro, which the CJEU allows under certain restrictive circumstances. While such approach would be based on established case law, it might be tested in court and thus comes with certain legal and reputational risks.

# 4.2. Legislative action by the co-legislators

The introduction of the digital euro further necessitates an enabling legislative framework. It is for the co-legislators to "recognise" the digital euro as a new and additional emanation of the currency and to integrate it – and the infrastructure necessary for its distribution – in the EU's broader legal framework. While the operational implementation of monetary policy is one of the basic tasks of the ECB according to Article 127(2) TFEU, there is a regulatory dimension to monetary policy as well, "intended to

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Guideline (EU) 2022/912 of the European Central Bank of 24 February 2022 on a new-generation Trans-European Automated Real-time Gross Settlement Express Transfer system (TARGET) and repealing Guideline 2013/47/EU, OJ L 163, 17.6.2022, p. 84.

See, e.g., Case C-130/10, European Parliament v. Council of the European Union, ECLI:EU:C:2012:472, paras. 42-43; Case C-155/07, European Parliament v. Council of the European Union, ECLI:EU:C:2008:605, paras. 34-35 (with further case law cited there)

<sup>&</sup>lt;sup>37</sup> Case C-130/10, para. 44; see also Case C-155/07, para. 36.

guarantee the status of the euro as the single currency".<sup>38</sup> The art is to reconcile that regulatory dimension with the independence the ECB enjoys when exercising its tasks (Article 130 TFEU).

The Commission has announced that it will adopt a proposal for a digital euro regulation on the basis of Article 133 TFEU. <sup>39</sup> That regulation might contain the following, not necessarily exhaustive elements:

- provisions on the role of supervised intermediaries in distributing the digital euro, including potentially its *mandatory* distribution (3.1. above);
- provisions on the eligibility of users of the digital euro (e.g., EU citizens living abroad);
- specific rules to protect the digital euro from counterfeiting and public misperception;
- provisions on fees and compensation (3.2. above); and
- rules on the basic privacy features of the digital euro, including its offline functionality, as well as the use of user data by supervised intermediaries (2.2. above).

In a separate regulation, the Commission may propose clarification of the concept of legal tender for euro banknotes and coins, including a digital euro,  $^{40}$  feeding the existing Commission Recommendation into a binding legal act. In addition, a row of amendments to existing secondary and national law will be necessary to accommodate the introduction of the digital euro, including:

- the Settlement Finality Directive and the Financial Collateral Directive<sup>41</sup>;
- the AML Directive<sup>42</sup> and the General Data Protection Regulation<sup>43</sup>;
- the PSD2 and Payment Accounts Directive;
- the prudential framework applicable to banks, including the CRD, <sup>44</sup> BRRD/SRMR<sup>45</sup> and DGSD<sup>46</sup>;
   and

<sup>&</sup>lt;sup>38</sup> Joined Cases C-422/19, para. 38.

<sup>&</sup>lt;sup>39</sup> European Commission (2022), p. 3.

<sup>&</sup>lt;sup>40</sup> A digital euro issued on the basis of Article 128(1) TFEU would have legal tender status based on primary law.

<sup>&</sup>lt;sup>41</sup> Directive 2002/47/EC of the European Parliament and of the Council of 6 June 2002 on financial collateral arrangements, OJL 168, 27.6.2002, p. 43.

Directive (EU) 2015/849 of the European Parliament and of the Council of 20 May 2015 on the prevention of the use of the financial system for the purposes of money laundering or terrorist financing, amending Regulation (EU) No 648/2012 of the European Parliament and of the Council, and repealing Directive 2005/60/EC of the European Parliament and of the Council and Commission Directive 2006/70/EC, OJ L 141, 5.6.2015, p. 73.

<sup>&</sup>lt;sup>43</sup> Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC, OJ L 119, 4.5.2016, p. 1.

Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC, OJ L 176, 27.6.2013, p. 338.

Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms and amending Council Directive 82/891/EEC, and Directives 2001/24/EC, 2002/47/EC, 2004/25/EC, 2005/56/EC, 2007/36/EC, 2011/35/EU, 2012/30/EU and 2013/36/EU, and Regulations (EU) No 1093/2010 and (EU) No 648/2012, of the European Parliament and of the Council, OJ L 173, 12.6.2014, p. 190; Regulation (EU) No 806/2014 of the European Parliament and of the Council of 15 July 2014 establishing uniform rules and a uniform procedure for the resolution of credit institutions and certain investment firms in the framework of a Single Resolution Mechanism and a Single Resolution Fund and amending Regulation (EU) No 1093/2010, OJ L 225, 30.7.2014, p. 1.

Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (recast), OJ L 173, 12.6.2014, p. 149.

 previous Council legislative acts that have facilitated the substitution of national currencies and addressed practical matters arising from the introduction of the euro as the single currency.<sup>47</sup>

As many of these amendments will have to be transposed into national law, the legislative process will take time. Against this background, a partial rollout of the digital euro as early as 2027 seems very ambitious.

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Council Regulation (EC) No 1103/97 of 17 June 1997 on certain provisions relating to the introduction of the euro, OJ L 162, 19.6.1997, p. 1; Council Regulation (EC) No 974/98 of 3 May 1998 on the introduction of the euro, OJ L 139, 11.5.1998, p. 1; Council Regulation (EC) No 2866/98 of 31 December 1998 on the conversion rates between the euro and the currencies of the Member States adopting the euro, OJ L 359, 31.12.1998, p. 1.

### 5. CONCLUSIONS

This study has assessed some of the key design features of a digital euro outlined in the three progress reports and further communications by the ECB to date, with a focus on legal issues. The first section addressed the characteristics and specifications of the digital euro *itself*, i.e. of the object that the ECB is contemplating to issue. It highlighted that the digital euro, as per its current envisaged design, oscillates somewhere between "real" money, a means of payment and a near-money investment. Particularly problematic is the envisaged remuneration of the digital euro, leading to unnecessary complexity and a potential assimilation of money and monetary policy instrument.

The second section looked into the design of the infrastructure necessary for the digital euro to be distributed and for payments in digital euro to be settled ("digital euro scheme"). The ECB's clarification on which supervised intermediaries might be eligible for distributing the digital euro is welcome, and its choice is wise, relying on a trusted set of intermediaries and an existing legal framework. However, a mission-critical question remains: What do intermediaries get in return for offering digital euro-related services on behalf of the ECB/NCBs (potentially on a mandatory basis)? To this author's knowledge, the costs that participation in the digital euro scheme would generate for these intermediaries, under different scenarios, have not been analysed systematically. Even less clarity exists on who would bear these costs to what extent.

The third section turned to the legal basis of the digital euro, distinguishing between the role of the ECB on the one hand and that of the co-legislators on the other. It argued that the ECB could act based on a combination of Article 128(1) TFEU, Article 127(2) TFEU, Article 22 ESCB/ECB Statute and Article 17 ESCB/ECB Statute to issue the digital euro and establish its supporting infrastructure, in line with established CJEU case law. The objective of ensuring a monetary anchor should take centre stage and be reflected in a cash-like design of the digital euro.

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This study assesses the ECB's first three progress reports on the digital euro from a legal perspective. It looks into what key design choices proposed by the ECB reveal in terms of the legal qualification of the digital euro and discusses legal aspects of the infrastructure supporting it.

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