Finance Watch

Making finance serve society

The Digital Euro: A Matter of Trust

Recommendations for Europe's new digital currency

A Finance Watch Policy Brief

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Executive Summary

Finance Watch supports the proposed introduction of a Digital Euro. It has the potential to reshape European retail payments and bring considerable benefits to European citizens. As a public alternative to established, privately controlled means of payment, such as payment cards and proprietary mobile wallets, the Digital Euro could contribute significantly to reasserting citizens' control of money and payments in the Union.

The European Commission's legislative proposal for a Digital Euro, published on 28 June 2023, is largely consistent with the framework signposted previously by the European Central Bank (ECB). **The proposal strikes a sensible balance** between a number of sometimes conflicting objectives, such as ease of use, low cost, financial inclusion, monetary and financial stability, and compatibility with anti-money-laundering rules, but **further improvements are needed**. In particular, EU residents' rights to access and use the Digital Euro, free of charge, need to be reinforced. The proposed **distribution of the Digital Euro through public-sector channels** must be credible and effective. All commercial payment services providers should be obliged, in due course, to distribute the Digital Euro, with no strings attached. The Digital Euro should be made **available in alternative formats** from the very start, including, at least, mobile phone 'wallets' and (physical) payment cards.

Finally, if citizens are expected to trust the Digital Euro, **the rules must go further to protect their privacy**, especially with online payments. If the Digital Euro's design is too concerned with preserving the status quo, in particular the role of banks and banking-sector intermediation, it may fail to gain acceptance, and the general public may turn, once again, to proprietary, private-sector payment solutions.

At the same time, Finance Watch emphasises the **importance of preserving the legal tender status of cash**, a means of payment upon which many vulnerable consumers will remain dependent, and therefore welcomes the Commission's legislative proposal, which regulates and reinforces the universal acceptance and access to cash.

Key Policy Recommendations

1. The Digital Euro should be readily available to EU residents.
Their rights to access and use the Digital Euro, free of charge, need to be reinforced. Distribution of the Digital Euro by public-sector authorities needs to be effective, widely available, and readily accessible. As a matter of principle, all commercial payment service providers operating in the EU should be obliged, in due course, to distribute the Digital Euro.

2. The Digital Euro should be truly free of charge to EU residents.
The range of 'basic services' that must be provided by payment service providers, free of charge, should cover users' everyday payment needs, including single payments and direct debits, online and offline. Any fees for services related to the Digital Euro should be kept to a level that does not hinder its take-up or put it at a disadvantage vis à vis commercial payment instruments. The Commission should be authorised to introduce mandatory caps, if necessary.

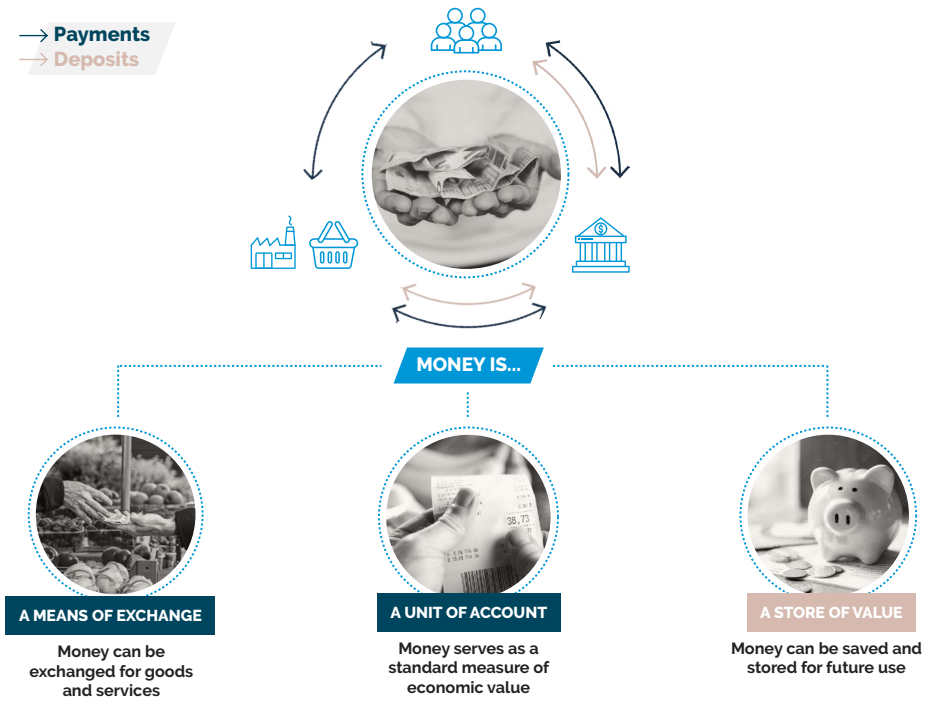
3. The Digital Euro should be easily accessible to all EU residents, including those who do not use mobile devices or lack connectivity.
The Digital Euro should be made available in a choice of formats including, at least, a mobile-phone wallet and a (physical) payment card.

4. The Digital Euro should be built on an adequate protection of users' privacy and personal data, if users are expected to trust it.
While the proposed approach to offline transactions goes a long way towards offering cash-like privacy, a higher level of privacy and data protection should also be applied to small, low-value online transactions.

5. The Digital Euro should not replace cash.
Cash remains an essential means of payment, especially for parts of the population who are unbanked or lack digital connectivity, and therefore welcomes the Commission's legislative proposal to regulate and reinforce the universal acceptance of, and access to cash.

I. The Digital Euro – Money to Move With the Times

a. Money and its functions

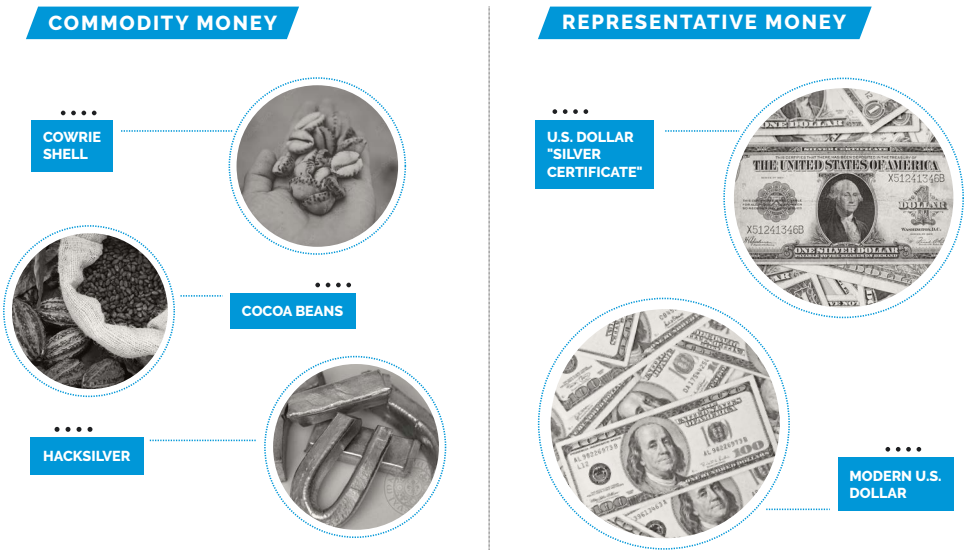


The definition and attributes of money and its role in society and the economy, have long been a subject of extensive research, and heated debate. At its most basic, any instrument that serves, simultaneously, as a **unit of account**, a **store of value** and a **medium of exchange** could be considered as money. In its role as a medium of exchange, money acts as a standard measure and a common denomination of trade in goods and services. As a unit of account, it forms the basis for quoting and bargaining prices and is a prerequisite for assigning costs and developing accounting systems. As a store of value, money enables users to defer consumption and make savings.

b. The changing face of money

Throughout history the concept and appearance of money have been constantly evolving. Early forms of money usually consisted of commodities widely accepted as rare and valuable, such as precious objects or metals ('**commodity money**'). Cowrie shells circulated historically in the Indian Ocean and parts of Africa, cocoa beans were exchanged in ancient Mexico, while medieval Norsemen carried 'hacksilver' ingots. The first **coins**, standardised quantities of a precious metal usually stamped with the distinctive symbols of the issuing ruler or community, began to circulate in the ancient Near East by the end of the ancient period (ca. 700 BC).

Over time, 'commodity money' was replaced with '**representative money**'. Instead of using valuable objects or materials, units of money became tokens representing a claim on the underlying valuable commodity. Traders began to exchange receipts issued by merchants or bankers who held stocks of gold or silver for safekeeping on their behalf. These receipts, and the promissory notes drawn on them, later evolved into what is still the most popular form of physical money today, **banknotes**. For a long time still, the basic unit of account continued to be referenced to a fixed quantity of gold and/or silver ('gold', 'silver' or 'bimetallic' standards). As recently as 1968, U.S. Dollar bills were still formally redeemable in silver ('silver certificates') and the convertibility of the U.S. Dollar into gold was not ended until 1971.



In most advanced economies today the state claims the legal prerogative of issuing coins and banknotes and delegates it to the central bank. The twenty member states of the Eurosystem, which make up the Eurozone, have assigned that competency to the ECB (Art. 128 TFEU). The ECB is solely responsible for authorising the issuance of Euro banknotes and controls the supply of Euro coins, which are issued by member states subject to its approval. Coins and notes are no longer backed by an explicit promise of convertibility into gold or silver, although central bank reserves of gold bullion and other valuables still exist. Instead, modern money derives its value primarily from the fact that it has been decreed by law as '**legal tender**', which means that it must be universally accepted in exchange for goods and services, as well as in payment of debts. It is supported, in an abstract sense, by a guarantee from the government that it will always honour its obligations, i.e. that government bonds and other borrowings will be repaid ('fiat money')[1]. Backed by this collective guarantee, albeit abstract,

1 According to U.S. law, all public debt is backed by "the full faith and credit of the United States government".

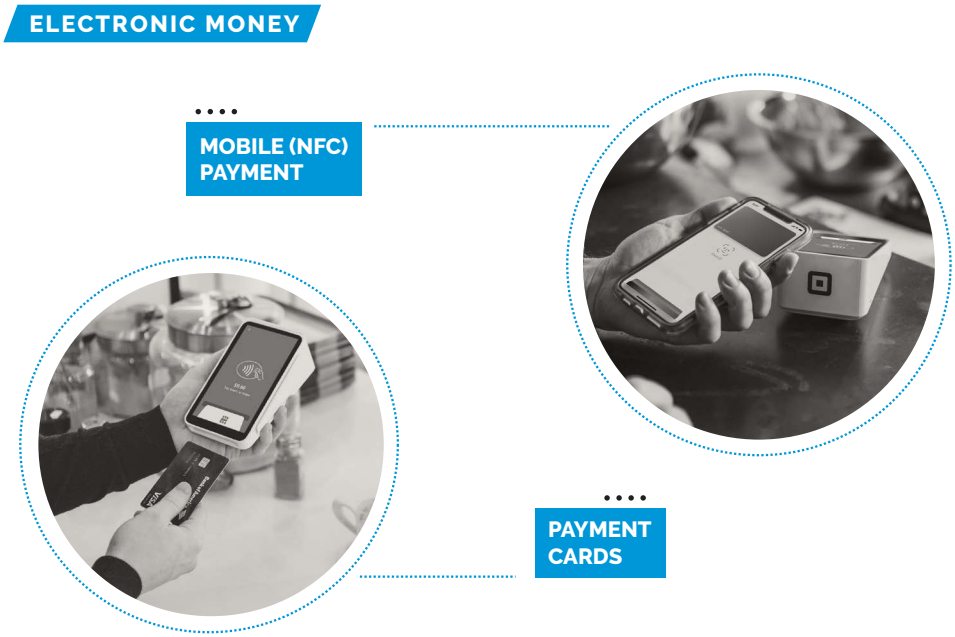
and given its status as legal tender, which relies on a collective agreement, money is widely perceived in democratic societies as a '**public good**', provided by the state, free of charge, to all residents.

The state's monopoly on issuing coins and notes does not mean, however, that banks no longer play a role in the process of creating money. Much to the contrary: in developed economies, central-bank money ('**public money**') – coins and notes, for the most part – accounts for only a small part of the money in circulation. In the Eurozone, **85%** of all the money in circulation today is commercial-bank money ('**book money**') based mainly, as it was in earlier times, on customer deposits held on account by commercial banks[2]. Cashless retail payments in all their various forms – bank transfers, personal cheques, and card payments – are always effected with commercial-bank money, not central-bank money.

For a long time, cash (coins and banknotes), as well as personal cheques, were the predominant instruments for handling money and effecting payments for private individuals. Credit and debit cards, which first appeared in the 1960s, first superseded personal cheques and later became an increasingly popular alternative to cash. In the 1990s, the widespread adoption of 'smart cards' (incorporating microchips) and portable electronic card payment terminals ushered in the era of '**electronic money**'. Cards played a key role in the growth of e-commerce since the late 1990s and have become the standard means of payment for online transactions. Other new channels for cashless retail payments emerged in the form of online banking and electronic bank transfers.

The introduction of NFC (Near Field Communication) in the early 2000s opened the way for contactless payments. Besides increasing the speed and convenience of using payment cards, NFC technology enabled mobile phones to become payment devices. Alphabet (Google) and Apple, the two digital platform operators who also own the principal operating systems for mobile phones, Android and iOS, were among the first to offer digital wallets (Google Pay, Apple Pay) to execute **mobile payments**. Today, mobile payments are rapidly gaining market share at the expense of both cash and card payments.

2 This definition, known as 'narrow money' or monetary aggregate M1, comprises the sum of all coins and notes in circulation and overnight deposits.



With the advent of the digital era, and especially since the launch of the first so-called 'crypto-currency', **Bitcoin**, money is likely to change yet again. When Bitcoin appeared on the scene in 2009 it was seen by many as a way to 'take back control' of the creation and circulation of money, free from the interference of governments and financial institutions[3]. Distributed ledger technology (DLT), also known as the 'blockchain', allows Bitcoin users to hold and exchange coins, record transactions, and verify legitimate ownership, independent of any one centralised authority. Copies of the Bitcoin database, the 'ledger', exist on thousands of computers (nodes) on a decentralised, peer-to-peer network. Due to its decentralised nature and built-in redundancy, DLT technology is considered to be robust against technical faults and cyberattacks, and highly resilient to tampering and fraud. In practice, however, Bitcoin has failed to establish itself as a credible, and accepted form of money: it is only rarely accepted as a means of payment for goods or services; its huge volatility relative to official currencies makes it impractical as a unit of account or as a store of value. In short, Bitcoin, as well as other, similar 'coins' (all part of a broader category known as '**crypto-assets**'), cannot be considered as a 'currency'. The term 'crypto-currency' should therefore be avoided.

There are, however, other instruments that draw on DLT technology and the vision of a global, private payment instrument to by-pass, if not replace, national currencies. 'Asset-backed tokens', better known as '**stablecoins**', are digital tokens, inspired by the design of Bitcoin but backed by, and convertible into a reference currency, such as the U.S. Dollar. The most famous of them is one that was never actually launched: in June 2019 Facebook (now: Meta) announced its global digital currency, **Libra** (later:

3 *Nakamoto, Satoshi, Bitcoin: A Peer-to-Peer Electronic Cash System*, October 2008

Diem), which would be made available to Facebook's global user base of 2.9 billion to make digital payments, cheaply and conveniently. The original Libra was designed as a privately-controlled token, issued by a Facebook-led consortium, and backed by a basket of major global currencies, including the U.S. Dollar, Euro, Pound Sterling, and Japanese Yen. The Libra consortium would have been responsible for setting up and managing a reserve fund of cash and government securities denominated in these reference currencies. Governments were rightly concerned about the prospects of a privately-controlled global 'currency', which would compete head-on with established official currencies, dilute the ability of central banks to implement monetary policy, and pose a serious risk to financial stability[4]. Under political pressure from the relevant jurisdictions[5], and faced with stiff resistance from civil society organisations[6], the Libra project was scaled back several times and ultimately abandoned altogether.

Bitcoin and Libra did prove, however, that there is significant interest in new digital payment instruments, especially among retail users. In response, governments have adapted their legal frameworks to account for stablecoins and other categories of crypto-assets, and central banks are advancing their own plans for **'central bank digital currencies' (CBDCs)**. CBDCs aim to combine the appeal of a secure and inexpensive digital means of payment, available in various form factors, with the proven advantages of official currencies, such as legal certainty, universal acceptance, and monetary and financial stability. Given the need for exchangeability between currencies and interoperability between different national systems handling CBDC transactions, international bodies, such as the FSB, the Basel Committee and the G-7, are involved in a range of efforts to promote cooperation and standardisation to facilitate the international use of CBDCs.

c. Recent trends in payments

While cash continues to play a central role in most citizens' everyday financial dealings, the growing importance of cashless payments, especially for non-recurring transactions, cannot be ignored. According to a recent survey by the ECB[7], cash has remained the most frequently used method for payments at the **point of sale (POS)**, i.e. retail payments for goods and services in the physical presence of the buyer and a (commercial) seller (e.g. a typical purchase in a 'bricks-and-mortar' shop or a ticket purchase on public transportation), which still account for 80% of all non-recurring payment transactions. In 2022, 59% of all point-of-sale transactions were carried out using cash, compared

4 *Finance Watch, Libra: Heads I Win – Tails You Lose.* Ten Reasons Why Facebook's Libra Is A Bad Idea, 23 July 2019

5 e.g. *French Ministry of Economics and Finance / German Federal Ministry of Finance, Joint Statement on Libra*, Helsinki, 13 September 2019

6 Finance Watch, *Our Petition to 'Stop Libra'* Collects 80,000 Signatures – Let's Reach 100,000, 11 October 2019

7 European Central Bank, Study on the Payment Attitudes of Consumers in the Euro Area (SPACE), December 2022

to 72% three years earlier. The share of card payments rose from 25% to 34% in the same period. In terms of value, however, the share of card transactions in 2022 (46%) surpassed the share of cash transactions (42%) for the first time. It is important to bear in mind, however, that this decline in the share of cash payments at the point of sale was accelerated, most likely, by the COVID-19 pandemic, when the use of cash was actively discouraged. This ties in with the observation that nearly two in three point-of-sale card payments (62%) in 2022 were contactless (up from 41% in 2019).

Overall, however, point-of-sale payments have been losing ground in recent years to **online payments** due to the rise of e-commerce, which was given an additional boost by the COVID-19 pandemic. In 2022, 17% of all non-recurring payment transactions across the Eurozone were effected online. In every Eurozone country, online payments accounted for at least 10% of all non-recurring transactions[8]. This marks a significant increase from the previous study, conducted in 2020, when online payments made up only 7% of the total. Credit and debit cards are still by far the most popular means of payment for online transactions (71%), followed by electronic payment solutions (such as PayPal, Klarna or Sofort), bank transfers, and mobile phone apps.

Retail users were making payments using mobile phone apps more often than before. However, their share in total POS payments was still relatively low compared to cash and card payments. **Mobile phone payments** accounted for 3% of all transactions in 2022 (up from 1% in 2019) and 4% of the value (up from 1%).

Not surprisingly, **recurring payments**, which include rent or mortgage payments, insurance, utility bills, subscriptions, taxes and similar payments, tend to be paid by way of direct debit or bank transfer, with cash and cards playing only a minor role[9].

Cash still plays an important role in private, **person-to-person (P2P)** payments, which make up only a small proportion of all non-recurring payment transactions (4%, according to the ECB study[10]) but which play an essential role, especially for financially excluded groups and in settings where no other payment channels are available.

Despite the growing popularity of cashless payments most EU residents still feel strongly about the **availability of cash**: in the ECB survey, **60% of respondents** rated the option to pay with cash as 'fairly important' or 'very important'. Preferences vary significantly between EU member states, however: while more than two-thirds of Greeks (69%), Germans (69%) and Austrians (67%) had strong views in support of cash, less than half of the Dutch and Slovak respondents (46% each) agreed[11].

8 European Central Bank, SPACE Study, December 2022, pg. 16

9 European Central Bank, SPACE Study, December 2022, pg. 38

10 European Central Bank, SPACE Study, December 2022, pg. 11

11 European Central Bank, SPACE Study, December 2022, pg. 39

d. The case for a Digital Euro

Eurozone residents, on the whole, value the availability of cash and make regular, and frequent use of Euro cash in their everyday lives. At the same time cashless payment options, such as cards, electronic and mobile payments, are becoming increasingly popular. All of the latter are, however, commercial solutions offered by private-sector operators who charge fees for their services. There is currently no option for Eurozone residents to make cashless payments – online or at the point of sale – with public money, which does not sit well with the notion of **money as a 'public good'**. The more citizens' activities move to the digital sphere the more urgent it becomes for government and central banks to offer a digital equivalent of cash, distributed by public authorities and free of charge, as a public alternative to these private-sector offerings.

This case becomes even stronger when we consider the **competitive situation** in the relevant markets. The market for card-based payment services is highly concentrated, with a small number of mainly U.S.-domiciled international groups dominating the market in Europe and globally. The Commission has been investigating the sector for many years for anti-competitive practices and repeatedly criticised the high levels of fees charged to merchants and users[12]. The market for mobile payments, too, appears likely to be in the hands of the two digital platform operators, Apple and Alphabet (Google) who own and control the relevant operating systems for mobile phones. Consumer organisations and regulators have been voicing concerns already about the dominance of these operators and the potential for anti-competitive practices[13] and/or the excessive collection, and possible misuse of customer data. A Digital Euro, protected by adequate privacy and data protection measures, could reduce the dependency of European citizens on a small number of dominant payment firms and 'Big Tech' platform operators and prevent further concentration in these markets.

12 Since 2007, the European Commission has conducted a number of investigations, especially on so-called 'multilateral interchange fees' charged by MasterCard and Visa, and found them to be anti-competitive. Since 2015, the EU co-legislators have imposed binding legal caps on these fees (Regulation (EU) 2015/751 of the European Parliament and of the Council of 29 April 2015).

13 The European Commission opened an in-depth investigation into Apple's practices regarding Apple Pay in June 2020 and has since expanded that investigation to include the firm's use of contactless mobile payment technology.

II. Comments on the Commission proposal

a. Status and outlook

On 28 June 2023, the European Commission published its long-awaited proposal for a Digital Euro[14]. It is the product of a three-year preparatory phase, which started with a report by the ECB in October 2020 and included several rounds of consultations by the Commission and the ECB with the financial industry, trade associations, and, to a more limited extent, civil-society. The ECB embarked on a two-year investigation phase in October 2021 and carried out a prototyping exercise with selected industry participants from Europe and the U.S., including Amazon, the giant U.S. digital retailer and platform operator, between July 2022 and February 2023.

The proposed Digital Euro regulation, together with the Legal Tender regulation released on the same day[15], is intended to provide the legal basis for the Digital Euro. It will be the responsibility of the ECB, however, to determine the timetable and practical arrangements for the introduction of the Digital Euro and to authorise its issue (Art. 4). The Governing Council of the ECB is expected to decide on next steps in the autumn of 2023 when the investigation phase is completed. According to the ECB's own estimate, the development of the Digital Euro, up to its eventual launch, could take up to three years.

Unlike the introduction of Euro cash on 1 January 2002 – when the Euro replaced the national currencies of the eleven original member states of the Eurozone – the introduction of the Digital Euro will not require the production and distribution of millions of physical coins and banknotes across the territory of, by now, twenty member states. Launching the Digital Euro will not be any less challenging logistically, however, given that electronic payment infrastructures – and millions of user devices – need to be made compatible with the Digital Euro's technical standards and requirements, most of which remain to be determined.

b. Key elements of the proposal

1. Legal tender status

The Digital Euro is, at least initially, designed exclusively as a **retail instrument**. It is not intended for use as a channel for financial institutions and intermediaries – digital central

14 European Commission, Proposal for a Regulation of the European Parliament and of the Council on the Establishment of the Digital Euro, COM(2023) 369 (final), 28 June 2023

15 European Commission, Proposal for a Regulation of the European Parliament and of the Council on the Legal Tender of Euro Banknotes and Coins, COM(2023) 364 (final), 28 June 2023
The ECB calculates three different measures of the money in circulation (monetary aggregates), M1 to M3. The 'narrow monetary aggregate' (M1), which is quoted most frequently, consists of the sum of banknotes and coins in circulation (ca. EUR 1,596 bn as of May 2023) and overnight bank deposit (ca. EUR 9,287 bn as of May 2023).

bank money for wholesale transactions already exists in the Eurosystem's TARGET2 services[16]. This does not preclude its use by businesses – non-financial businesses that receive payments from retail customers will be required to handle Digital Euro payments and business-to-business payments in Digital Euro will be possible. That said, private individuals are expected to be the primary users of the Digital Euro, and its design features are chosen accordingly.

The Digital Euro will be issued by the ECB and national central banks and, like cash, will be a direct liability of the central bank towards Digital Euro users (Art. 4). It will have the status of **legal tender** (Art. 7), which means that its acceptance is, a priori, mandatory. Some exceptions are proposed, especially for private individuals and small businesses (Art. 9). In addition to member states, which still have the right to adopt exceptions to the mandatory acceptance at the national level in areas of shared competence, the Commission may introduce additional exceptions to the principle of mandatory acceptance by way of delegated acts (rec. 19 and Art. 11). This option is justified, by way of example, by the need to accommodate certain technical specifications that have not been determined yet but may, conceivably, affect the acceptance of the Digital Euro in certain situations. The intention here is understandable but the delegation, in its current form, appears too sweeping: the legislative text should outline these scenarios more clearly and seek to keep the scope for further exceptions to a minimum.

2. Digital Euro and Euro cash

The Digital Euro will always be **convertible at par** with Euro-denominated banknotes and coins (Art. 12). The Commission and the ECB have been at pains to dispel any lingering doubts that the Digital Euro is intended, in due course, to replace **physical cash**. In its proposal for a Legal Tender Regulation, the Commission acknowledges the necessity "*to ensure the ease of access to Euro cash, because if citizens do not have access to cash, they will not be able to pay with it and its effective legal tender status will be undermined*" and points out that the proposed regulation would ensure "*that the physical form of central bank money, Euro cash, remains present, available and accepted by all Euro-area residents and enterprises.*" As we argue in this document on several occasions, the Digital Euro, for all its potential benefits, is not a perfect substitute for cash. Therefore, easy access to cash must be maintained for as long as there is demand from the general public.

The success of the Digital Euro will be measured by whether it will find widespread acceptance across all sectors of society. It must not lead to **financial exclusion**, e.g. along generational lines or social groups. Art. 22 states that the usage and service

16 The Eurosystem comprises the ECB and the central banks of the member states of the EU whose currency is the Euro (Eurozone). TARGET 2 (Trans-European Automated Real-time Gross Settlement Express Transfer System) is the real-time settlement system for the Eurozone and handles the monetary policy operations of the central banks of the Eurosystem as well as cross-border interbank transfers.

features of the Digital Euro should be "*simple and easy to handle, including for persons with disabilities, functional limitations or limited digital skills*".

Other potential barriers could affect users' access to the Digital Euro, such as a lack of network connectivity or access to compatible end-user devices. Some of these barriers are likely to be transitory, whereas others may be more difficult and take longer to address. Especially persons with limited digital literacy may be reluctant initially to adopt the Digital Euro. In order to build trust and encourage Eurozone residents, in particular, to take ownership of the Digital Euro, member states should offer low-threshold support for new users, emphasising its optionality and complementarity to physical cash.

3. Distribution model

The Commission's proposal envisages the Digital Euro to be **distributed indirectly** through financial intermediaries. Within the Eurozone, credit institutions already active in retail banking will be required to distribute the Digital Euro and offer relevant services to their customers (rec. 28 and Art. 14(1)). Other payment service providers may offer Digital Euro payment services to their customers under the terms of their licence under PSD 2 but are not obliged, in principle, to do so (Art. 13).

In order to facilitate a speedy adoption of the Digital Euro, a **general obligation** to provide Digital Euro services, which is currently limited to credit institutions offering retail banking services (Art. 14(1)), should be extended to all commercial payment institutions, subject to appropriate proportionality criteria and phase-in periods. There is no doubt that the Digital Euro may be seen by some of the established payment service providers as a challenge to their entrenched market positions. As mentioned previously, progress in adopting the Digital Euro, especially by merchants at the physical point of sale (POS), will depend critically upon the roll-out of compatible infrastructure, such as compatible POS terminals and end-user devices. A reluctance by dominant payment service providers to integrate Digital Euro functionality into their offerings may prove difficult to overcome and could become a significant obstacle towards widespread public acceptance.

According to the Commission's proposal, member states will have to ensure that public entities, including local or regional authorities, or postal offices, distribute the Digital Euro to ensure wide availability, especially to persons who do not, or cannot, have an existing account with a credit institution or another payment service provider, persons with disabilities, functional limitations or limited digital skills, and elderly persons (rec. 26 and 29 and Art. 14(3)). The option for residents to hold Digital Euro with public-sector service providers should not be a notional requirement: it is critical that the '**public option**' set out in Art. 14(3) is genuine and credible. It must be widely accessible and available not only to otherwise unbanked users, as a 'last resort', but to all residents, regardless of whether they do or do not have other accounts, with the public provider or elsewhere. Member states should be obliged not only to nominate entities responsible for delivering these services, but also to ensure that such nominated entities are capable, in terms of resources and geographical presence, of delivering their mandate comprehensively and effectively.

4. Fees and charges

The proposed regulation sets out a **remuneration** model for payment services providers which follows largely the established structures for card payments[17], with fees charged to merchants by their payment services provider for accepting ('acquiring') a transaction ('merchant service charges') and so-called 'interchange fees' charged by the user's payment services provider, usually the issuer of the user's payment card. Interchange fees in the EU have been under intense scrutiny by the EU competition authorities for a long time. Between 2007 and 2015, the Commission brought multiple cases against the main global operators of branded card schemes, especially Mastercard and Visa, who were seen as abusing their dominant market positions. In 2015, the co-legislators introduced a regulatory cap on interchange fees per transaction of 0.2% for debit cards and 0.3% for credit cards[18]. In a similar vein, the Commission is currently investigating potential anti-competitive practices in the market for mobile payments, where the two main global providers of operating systems for mobile phones also supply the majority of mobile payment wallets and, in some cases, control the technical interface for contactless payments[19].

Use of the Digital Euro would be **free of charge** for all **natural persons** currently resident in the Eurozone, as well as former residents and visitors, i.e. tourists, business travellers, and students (Art. 17(1)). Free use is limited, however, to the basic payment services listed in Annex 2, which comprise (i) opening, holding and closing the account; (ii) balance checks and transaction reports; (iii) non-automated funding and defunding from/into cash or from/into another Euro payment account; (iv) standard payment transactions, including standing orders, with other persons, at the point-of-sale, online (e-commerce) or with government; (v) intra-account ('waterfall' and reverse waterfall') transfers that are carried out automatically to comply with holding limits; and (vi) the provision of at least one electronic payment instrument, e.g. a card or mobile wallet. This list is modelled on the 'payment account with basic features' under the Payment

17 Fees on payment card transactions in the EU are governed by Regulation (EU) 2015/0751 of the European Parliament and of the Council of 29 April 2015 on Interchange Fees for Card-based Payment Transactions, OJ L 123, 19 May 2015, pg. 1; and Directive (EU) 2015/2366 of the European Parliament and of the Council of 25 November 2015 on Payment Services in the Internal Market, OJ L 337, 23 December 2015, pg. 35

18 These fee caps apply to cards issued to consumers, primarily though branded card schemes, such as Mastercard and Visa

19 In June 2020 the Commission opened an investigation against Apple in connection with its 'Apple Pay' mobile wallet and 'Tap and Pay' contactless mobile payment technology. On 02 May 2022, the European Commission sent a Statement of Objections to Apple regarding its refusal to grant third parties access to its Apple Pay NFC payment interface, which it considers to be anti-competitive.

Accounts Directive[20] but deviates in some significant aspects[21].

Payment account providers would be entitled to charge fees for using the Digital Euro to natural persons (for additional services not covered by Annex 2), merchants and corporate users, and other payment service providers. These fees would be subject to limits (Art. 15(2)). According to Art. 17(2), **merchant service charges** and **interchange ('inter-PSP') fees** should not exceed the lower of (i) the costs incurred by the service provider for the delivery of Digital Euro services, plus a 'reasonable' profit margin); or (ii) fees and charges of other, comparable digital means of payment (in most cases presumably debit cards). There is, however, no absolute cap on fees similar to the cap on interchange fees for card payments. Instead, the ECB is tasked with monitoring and reporting on the level of fees charged by market participants. This may not be sufficient: based on experience with the payment cards market, and in view of current developments in the market for mobile payments, it would appear sensible, by way of precaution and as a bare minimum, to empower the Commission to impose **binding caps** on merchant service charges and interchange fees by way of a delegated act.

There is, however, room for a broader discussion on whether commercial providers of payment services should be remunerated at all for the provision of basic Digital Euro services. If the Digital Euro is indeed legal tender in the Eurozone, and acceptance is mandatory for merchants and other corporate users, payment service providers stand to earn a **risk-free 'rent' income** on the circulation of the Digital Euro. This is very different from the treatment of cash, and dilutes the status of the Digital Euro as genuine central bank money. The incremental investment required to adapt existing payment networks for the Digital Euro is likely to be moderate given that it builds on technologies that are, for the most part, already in place[22]. It appears unlikely, as of today, that service providers will be required to invest huge sums to develop and build entirely new networks from scratch, as was the case, for comparison, with the introduction of mobile communications infrastructure. Instead, Digital Euro transactions will most likely be processed, for the foreseeable future, as incremental business to traditional card payments and mobile payments using the same technical infrastructure. The

20 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 ('Payment Accounts Directive', PAD), OJ L 257, 28 August 2014, pg. 214

21 In particular, Annex II of the proposal requires payment service providers to provide "at least one electronic payment instrument" but does not specifically entitle customers to a payment (debit) card. Payment (debit) cards are part of the 'basic features' of a payment account according to rec. 44 and Art. 17(1) of the Payment Accounts Directive. The absence of a card option could negatively affect take-up of the Digital Euro, especially among parts of the population who are less comfortable with mobile payments, or lack connectivity. Customers should have the option, by default, to obtain a Digital Euro payment card, free of charge, as a basic service. Exceptions could be made for certain categories of payment service provides, especially smaller ones on grounds of proportionality. Moreover, unlike Art. 17(1) of the Payment Accounts Directive, the list in Annex II of the proposal does not include direct debits as a basic payment service; it should be amended accordingly.

22 See the Commission's discussion of potential one-off investment required from payment services providers to adapt their infrastructures and processes for the Digital Euro in the impact assessment accompanying the Digital Euro proposal; European Commission, SWD(2023) 233 (final), 28 June 2023

co-legislators should therefore seriously consider whether payment services providers should be entitled to charge fees to merchants and corporate users for basic payment services at all. At least, the Commission should be provided with the option of setting a mandatory cap on fees, if needed, upon recommendation by the ECB and based on the ECB's monitoring under Art. 17(3).

5. Functionality

The Digital Euro is intended, first and foremost, as a **payment instrument**. As such, it seeks to combine some characteristics of cash with those of e-money. Euro-denominated banknotes and coins are still a dominant means of payment within the Eurozone.[23] In its proposal for a Legal Tender Regulation, the Commission rightly observes that cash is the only means of payment that "*allows direct in-person payments, with immediate settlement and without involvement of any third party or use of electronic equipment.*" The Digital Euro, as proposed, seeks to replicate some, if not all of these features.

Under the Commission's proposal the Digital Euro will be made available for **online and offline** payments from the beginning (Art. 23(1)). Offline functionality, in particular, could be technically challenging given that the ECB has only recently cast doubt on the availability of a technical platform ready for deployment within the "*next five to seven years*"[24]. The proposal does not expand on the types of devices and form factors ('payment instruments') by which the Digital Euro would be distributed, but the ECB has already indicated that it would be made available, at least, in the form of payment cards and via a mobile application.

The ECB is tasked with developing and offering its own **front-end services** (Art. 28), presumably including a mobile application with secure storage (self-custody wallet) and payment interfaces. The ECB would not provide these services directly to users but only indirectly through payment services providers, who would also be expected to develop and offer their own solutions. The availability of a standard application designed by the ECB would be very welcome provided it sets a **benchmark** in terms of **accessibility** and '**privacy by design**'. Public-sector payment service providers, in particular, should be strongly encouraged to offer the ECB application instead of deploying applications, either in-house or third-party, that encourage commercial 'data harvesting'.

Based on the ECB's preparatory work and prototyping exercises, the proposal envisages **offline transactions** to involve primarily mobile payments using smartphones with NFC technology (contactless payments). As mentioned previously, the acceptance of the Digital Euro will depend, to a large extent, on its compatibility with the required hardware and software, and the EU should therefore engage actively with global technology providers, especially mobile phones manufacturers, to ensure that the

23 European Central Bank, Study on the Payment Attitudes of Consumers in the Euro Area (SPACE), December 2022 (see Annex)

24 European Central Bank, Digital Euro – Prototype Summary and Lessons Learned, 26 May 2023, pg. 2

necessary technical standards are developed and implemented as a matter of urgency. Legislative measures to support this effort, similar to the successful standardisation of the common charging port for mobile devices by way of the revised Radio Equipment Directive[25], may be necessary and should be explored in due course.

6. Financial stability

While the payment functions of the Digital Euro are modelled closely on cash and e-money the Commission also spells out clearly that the function of the Digital Euro as a **store of value** should be limited to prevent it from competing head-on with commercial bank deposits (Art. 15 and 16). Concerns that the Digital Euro could erode the deposit base of commercial banks, and thus the financial stability of the Eurozone, have been a recurring theme throughout the institutional discussions and preparations that preceded the Commission's proposal.

As mentioned earlier, the Commission has opted for an indirect model of distribution of the Digital Euro. Users will not have direct accounts with the central bank and will, therefore, not have the option of placing funds on deposit directly with the central bank. This 'account-based' model of a CBDC would insulate depositors from the credit risk of deposit-taking financial institutions. Deposits held directly with the central bank would, by definition, never become unavailable and depositors would not have to rely on deposit guarantee schemes, which are capped at EUR 100,000 and, in some member states, not even fully funded.

In practice, when applied to the financial and banking system of the EU as it exists today, this approach has, however, significant drawbacks from the point of view of **financial stability**, which is why it was not adopted by the Commission for this proposal. On the one hand, it would create effective competition between the central bank and commercial banks for retail and business deposits. Commercial banks would have to offer higher interest rates on deposits to compensate for the fact that they carry credit risk, while central bank deposits don't. This would render deposits a priori more expensive – the higher cost would be passed on to borrowers, making loans more expensive in turn. On the other hand, it would also make deposits less stable. As a form of funding, deposits are generally considered 'sticky', i.e. less volatile than wholesale funding provided by institutional investors through the capital markets. Although this assumption is under scrutiny following the collapse of Silicon Valley Bank in March 2023, which saw its deposit base evaporate with unprecedented speed in a matter of days, it is still thought to apply in the vast majority of cases, mainly on the grounds that most depositors do not have many alternatives to transferring their funds to another commercial bank, which may be as vulnerable in a systemic crisis as the bank they are leaving.

25 Directive 2014/53/EU of the European Parliament and of the Council of 16 April 2014 on the Harmonisation of the Laws of the Member States Relating to the Making Available on the Market of Radio Equipment, OJ L 153, 22 May 2014, pg. 62

With the option of holding deposits directly with the central banks, depositors who placed their funds with commercial banks to earn the higher interest margin would likely move them back to the central bank at the first sign of distress, especially those with holdings above EUR 100,000, which are not covered by a deposit guarantee[26]. This could cause potentially huge and sudden outflows from the commercial banking sector to the central bank and trigger a sector-wide '**liquidity crunch**' that could turn rapidly into a systemic crisis. For the same reasons, and given that the Digital Euro is modelled on cash, it is sensible that it should also not bear interest (rec. 37 and Art. 16(8)).

Finance Watch concurs with the view that sudden withdrawals of deposits might pose a potential systemic risk for the banking sector and agrees, in principle, with the approach to apply **holding limits** to Digital Euro accounts. However, the current wording of Art. 16 mandates the ECB to "*develop instruments to limit the use of the Digital Euro as a store of value*", which is vague and does not sufficiently specify what instruments should be placed at the ECB's disposal. These choices will have a significant impact on the practical use of the Digital Euro and should be predetermined by the legislators. In any event, holding limits for the Digital Euro should not be more restrictive than those already in place for similar applications.

To facilitate the implementation of holding limits the proposal suggests that users should link their Digital Euro accounts to an existing payment account so that Digital Euro balances in excess of the holding limit could be converted and transferred automatically to that account ('**waterfall**'). Conversely, users could conveniently top up their Digital Euro balances from the account ('**reverse waterfall**'). This mechanism is useful and will no doubt appeal to most users. Nevertheless, linking should be optional, and users should be free to choose whether they would prefer to use their Digital Euro account or wallet in 'unlinked mode', and accept a limited loss of functionality in return.

7. Data protection

The convenience of digital money also comes with another drawback: full, cash-like anonymity of digital payments is difficult to achieve and equally difficult to reconcile with long-standing efforts by regulators and law enforcement to combat money laundering and terrorism financing. Finance Watch accepts that some concessions will have to be made to ensure that the Digital Euro does not become a conduit for illegal activities, such as money laundering and financing of terrorism.

On the other hand, European residents will trust and adopt the Digital Euro only if they are confident that their privacy is adequately protected. Digital Euro applications

26 Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on Deposit Guarantee Schemes, OJ L 173, 12 June 2014, pg.149 ('Deposit Guarantee Scheme Directive', DGSD)

should be designed in accordance with the general principles of Art. 5 GDPR[27], especially the principles of '**purpose limitation**' (lit. b) and '**data minimisation**' (lit. c). According to the Commission's proposal (Art. 34) the processing of certain personal data of Digital Euro users would be considered to be in the public interest, and hence a priori lawful under the GDPR. Annexes III and IV contain a list of personal data that could be processed under this presumption by payment services providers and the ECB, respectively. The Commission would be empowered to issue delegated acts to update the list of personal data in Annex III (Art. 34(3)) – given the sensitivity of the matter it may be more appropriate to reserve such amendments to the co-legislators.

The proposal suggests that the ECB should not, as a matter of principle, store and/or process users' personal data. Onboarding of users, checks for anti-money laundering and financing of terrorism (AML/CFT) risks, and processing of transaction records would be handled solely by supervised intermediaries. Offline Digital Euro payments will have a higher level of privacy than online payments (Art. 37). The ECB, member-state central banks and payment services providers do not gain access to personal transaction data. Payment service providers will only record data related to the identity of the user and the amount of Digital Euro paid or received, similar to the processing of personal data that occurs today when users use automatic teller machines (ATMs) to deposit or withdraw cash. The Commission is empowered to adopt implementing acts to set holding and transaction limits for offline transactions.

For offline transactions, the proposal sets out a mechanism which provides for an enhanced degree of privacy (Art. 34(1) last para. and Art. 37), albeit subject to holding and transaction limits, which are justifiable on the basis of anti-money-laundering concerns. This design feature is essential for the Digital Euro to gain acceptance as a cash-like instrument and to encourage broad public acceptance.

For **online transactions**, the proposed data collection and processing practices are largely in line with the standards already applicable today for online payments using cards or online banking. This does not correspond, however, to the specific characteristics of the Digital Euro as cash-like central bank money, which should adhere to the European Data Protection Board's principles of privacy by design and by default[28], and therefore come with a higher degree of privacy than commercial bank (e-)money. Alongside the proposed use of mobile-phone wallets for NFC-enabled proximity payments, which appear to be the ECB's preferred option for offline payments at present, the final design should also allow for the use of other devices, such as 'cold', hardware-based wallets, and accommodate off-line and online transactions with the same degree of privacy, and subject to the same holding and transaction limits.

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27 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, OJ L 119, 04 May 2016, pg. 1 ('General Data Protection Regulation', GDPR)

28 European Data Protection Board, *EDPB Letter* to the European Institutions on the Privacy and Data Protection Aspects of a Possible Digital Euro,18 June 2021

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About Finance Watch

Finance Watch is an independently funded public interest association dedicated to making finance work for the good of society. Its mission is to strengthen the voice of society in the reform of financial regulation by conducting advocacy and presenting public interest arguments to lawmakers and the public. Finance Watch's members include consumer groups, housing associations, trade unions, NGOs, financial experts, academics and other civil society groups that collectively represent a large number of European citizens. Finance Watch's founding principles state that finance is essential for society in bringing capital to productive use in a transparent and sustainable manner, but that the legitimate pursuit of private interests by the financial industry should not be conducted to the detriment of society. For further information, see www.finance-watch.org

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