

Focus Euro Area

The first steps towards the digital euro

The evolution of digital payments, the growth of *stablecoins* and the spread of *DLT* technologies are posing new challenges to monetary sovereignty and European financial infrastructure. Through the Pontes and Appia projects and the development of the retail digital euro, the Eurosystem aims to ensure that central bank money continues to fulfil its role in the digital economy, while supporting the integration and efficiency of European financial markets¹.

Origins and nature of the project

The context

The debate surrounding the introduction of a central bank digital currency (CBDC) in the euro area has emerged as a structural response to the rapid digitalisation of payment systems and the gradual decline in the use of cash in everyday transactions. A powerful catalyst that accelerated the inclusion of this issue in the agendas of international monetary authorities was the publication of the white paper on the Libra project by a consortium of companies led by Facebook in 2019². The prospect that a multinational in the tech sector might create a parallel private currency, pegged to a basket of currencies, highlighted the risks arising from institutional inaction. Of particular concern was the potential for widespread adoption: drawing on a user base of over two billion, Libra could have rapidly reached a systemic scale. Consequently, **central banks decided to preserve the role of central bank money in the digital payments system to prevent scenarios of monetary fragmentation and protect the financial system** from potential instances of "digital dollarization", or interference by private companies not subject to supervisory constraints comparable to those of credit institutions. Today, **over 99% of the global stablecoins market is denominated in US dollars**³ (Fig. 3). In the absence of a public European alternative in digital form, the gradual penetration of foreign stablecoins into cross-border payments and e-commerce could expose the euro area to a loss of sovereignty and to the influence of US monetary policy decisions.

The results of the latest ECB survey, published in August 2024⁴, show that **cash and electronic payments co-exist in euro area businesses: the acceptance of cash remains stable, whilst that of digital channels, in particular mobile payments, is growing rapidly** (Fig. 1). Overall, the acceptance of cash remains widespread, standing at around 92% at points of sale, particularly in the catering, hospitality and retail sectors. In 2024, this figure stood at 90%, suggesting that the decline in cash use following the COVID-19 pandemic has come to a halt. At the same time, the acceptance of credit and debit cards has become established as the dominant operational standard, reaching 88%, and has been accompanied by a sharp acceleration in the adoption of mobile and app-based payments, with acceptance by businesses reaching 68%, almost double the 2024 figure (36%). Among euro area countries, the cash acceptance rate is highest in Greece and Italy (99% in both cases) and lowest in Belgium (81%) and Cyprus (76%).

¹ We would like to thank our colleagues Stefano Arvati and Alberto Robino from the *Treasury – Digital Evolution* department for their input and technical support during the drafting of this report.

² Libra Association (2019), "An Introduction to Libra", White Paper, June 2019

³ Senne Aerts, Claudia Lambert and Elisa Reinhold, "[Stablecoins on the rise: still small in the euro area, but spillover risks loom](#)", ECB, Financial Stability Review, November 2025

⁴ [Use of cash by companies in the euro area in 2024](#), European Central Bank (2026)

1st October 2026

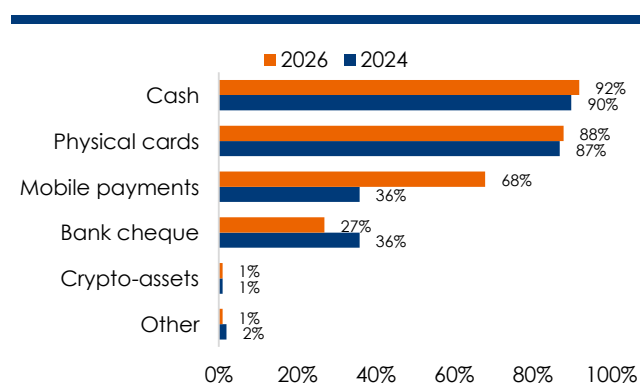
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Among businesses that do not accept cash, the most frequently cited reasons are the low uptake by customers (36%, compared with 39% in 2024) and the inconvenience or difficulty in depositing or withdrawing it (35%, compared with 22% in 2024) (Table 1). A comparison between cash and digital payments reveals that **there is no category covered by the survey in which businesses consider digital payments to be significantly superior to cash**. Overall, businesses consider cash preferable to digital payments in terms of privacy and reliability. **A high proportion of businesses also believe that cash is better than digital payments in terms of overall costs, transaction speed, ease of management and security**. These results suggest that cash retains characteristics, such as privacy, reliability and universal acceptance, that private digital payments do not fully replicate. It is this space that the digital euro aims to fill, transferring certain properties of public money into the digital world.

Fig.1 - Businesses are increasingly using electronic payments alongside cash



Source: ECB

Table 1 - Businesses that do not accept cash justify this decision on the grounds of limited use by customers and the inconvenience of making deposits

Reasons why companies don't accept cash	2024 (%)	2026 (%)
Not used enough	39	36
Deposit or withdraw inconvenient	22	35
Security risk	21	29
Difficult to keep enough change	n.a.	20
Other	25	12
Restriction of large cash payments	n.a.	11
Counterfeiting	8	11
Time-consuming	14	9
Internal fraud	8	6
Expensive	5	6

Source: ECB

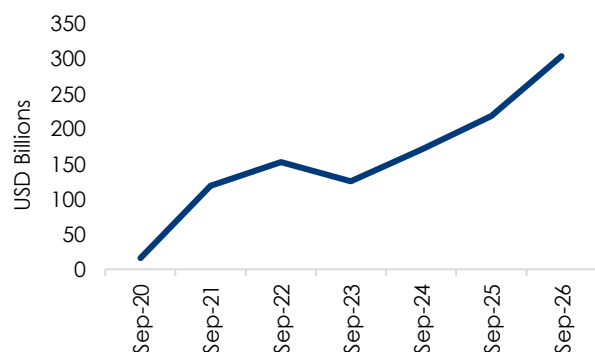
From an economic and legal perspective, **the retail digital euro is a digital version of cash, issued and guaranteed directly by the European Central Bank** and the central banks of the Eurosystem. The stated aim of the monetary authorities is to use this currency alongside banknotes and coins without replacing them, thereby providing citizens with a public and accessible means of payment in the digital economy. In this context, it is essential to draw a clear distinction between the digital euro and other types of digital assets currently on the market. Unlike crypto-assets without an underlying asset, such as Bitcoin or Ether, **the digital euro is not designed as a speculative instrument and does not exhibit any price volatility: it is a direct liability of the central bank characterised by a constant face value and legal tender status**, exactly like cash in circulation. Similarly, the project is clearly distinct from stablecoins issued by private entities, which are not legal tender and carry a risk linked to the possibility that issuers may not manage their reserves adequately. Although these private coins promise holders the possibility of being converted back into public currency at any time, this is not guaranteed in all circumstances: certain convertibility at par is a feature unique to public currency, unless the issuer of private currency holds reserves deposited with the central bank equal to 100% of the private currency issued. This implies that the stability of stablecoins depends on the quality and liquidity of the underlying reserve assets, a characteristic that distinguishes them from central bank money⁵. The market capitalisation of stablecoins has grown significantly compared with levels of just a few years ago (the value has risen from \$15 billion in 2020 to over \$300 billion today⁶), although their

⁵ Donato Masciandaro, "The macroeconomic risks of private digital currencies", *Il Sole 24 Ore*, 15 May 2026. There are parallels with the era of *wildcat banking* experienced by the United States in the 19th century, as highlighted by Gorton, Gary B. and Zhang, Jeffery Y. (2023) "[Taming Wildcat Stablecoins](#)," *University of Chicago Law Review*: Vol. 90: Iss. 3, Article 3.

⁶ <https://defillama.com/stablecoins>

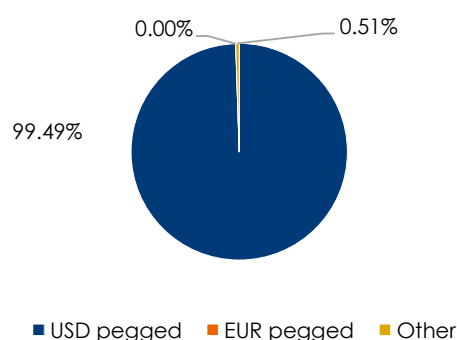
role in the payments system remains marginal and is largely confined to acting as an interface between official payment systems and the crypto world. However, stablecoins are already taking market share away from the local currencies of emerging and high-inflation countries, where they are used as a store of value in dollars and for cross-border payments⁷.

Fig. 2 - In just six years, the market capitalisation of stablecoins has risen from around \$15B in 2020 to over \$300B in 2026



Source: DefiLlama.com

Fig. 3 - Over 99 per cent of stablecoins are pegged to the US dollar



Source: DefiLlama.com

The digital euro, on the other hand, is free from credit and liquidity risk as it is a central bank currency. Within payment systems where commercial bank money and private electronic instruments predominate, the digital euro would thus act as a genuine anchor for the monetary system, ensuring parity of exchange between the various forms of money and preserving overall confidence in the single currency.

In essence, **in the view of the monetary authorities, the digital euro also addresses a need for strategic autonomy in payments.** The card payments market in the euro area is highly fragmented (thirteen of the twenty-one euro area countries do not have a national card scheme⁸) and concentrated in the hands of a few non-EU international schemes (e.g. Visa and Mastercard). According to the ECB, the digital euro would offer an independent and open pan-European payment infrastructure, stimulating competition, reducing fees and fostering the emergence of European technology firms in the payments sector. Supporters of the digital euro argue that, if the Eurosystem were to refrain from issuing its own digital euro, the private market would inevitably fill the void by creating private digital currencies as substitutes. Such instruments, which are not guaranteed by a central bank and lack a public support infrastructure, would expose the economic system to the risk of liquidity crises in the event of a loss of the nominal value anchor, and could have negative repercussions on the overall credibility of the single currency.

The dual nature of the project: wholesale and retail

The project defined by the Eurosystem is being developed along two parallel tracks, which differ in terms of their operational scope, target user groups, powers of intervention and regulatory governance. **The wholesale strand concerns the interbank system and the settlement of transactions between financial intermediaries.** Since the management of market liquidity and the operation of settlement infrastructures fall directly within the ECB's powers (Article 127 of the Treaty on the Functioning of the European Union), **the wholesale pillar does not require new EU legislation and can proceed under the direct responsibility of the Eurosystem. The retail**

⁷ Iñaki Aldasoro, Jon Frost and Hiro Ito, "[The impact of stablecoins on the international monetary and financial system](#)", BIS Papers No 170, May 2026.

⁸ [Piero Cipollone, 12 February 2026, Speech: "Europe and monetary sovereignty"](#)

dimension, on the other hand, **is intended for universal use by citizens, merchants and public bodies for day-to-day payment transactions**. As it directly affects aspects such as citizens' fundamental rights, the protection of personal data, financial inclusion, mandatory legal tender status and competition with commercial bank money, the retail version **requires a solid legal basis from the European Union**. To this end, the European Commission presented a comprehensive proposal for a Regulation⁹ in June 2023, on which the European Parliament gave its opinion in June 2026. Negotiations with the Council are now underway, with the aim of final approval by the end of the year. Following the conclusion of the investigation phase (2021–2023) and the preparation phase (2023–2025), the Eurosystem entered a new operational phase in November 2025, comprising: the technical development of the infrastructure, systematic market engagement and support for the European legislator. The key body in this phase is the Rulebook Development Group (RDG), which brings together representatives from the Eurosystem central banks, payment service providers (PSPs), the banking sector and end-users. The RDG's task is to draft the **Digital Euro Scheme Rulebook, that is, the unified set of rules, technical standards, governance models and operational workflows necessary to ensure harmonised and secure use across all member countries**. The current [roadmap](#) provides that **from the second half of 2027, the first small-scale (pilot) trials will begin, involving users** (staff from the ECB and individual central banks), **merchants and selected PSPs to test the technical robustness of transactions. In 2029, the infrastructure is expected to be in place for a possible decision on issuance**, which will in any case **remain subject to the formal completion of the European Union's regulatory process**.

The Wholesale plan: the Pontes and Appia initiatives

The current infrastructure of the wholesale payment system in the euro area

The payment system currently in use within the Eurosystem is **Target Services**, the infrastructure that **brings together all settlement services in central bank money for cash, securities and collateral** in the euro area. The infrastructure utilises the following systems for wholesale payments:

- **T2**: this handles the real-time settlement of refinancing operations, deposit movements, reserve management operations, interbank payments and commercial transactions intended as the settlement of urgent or large-value payments initiated by businesses and institutional clients. From an accounting perspective, each participant's liquidity is divided between the Main Cash Account, through which transactions with the central bank are settled, and the Dedicated Cash Accounts, where individual payments are settled in real time.
- **T2S**: handles the real-time settlement of securities in the euro area. From an accounting perspective, T2S applies the Delivery versus Payment principle: it transfers securities held with Central Securities Depositories (e.g. Monte Titoli/Euronext Securities Milan) and cash to the Dedicated Cash Accounts at exactly the same moment, minimising counterparty risk and providing automatic liquidity through self-collateralisation.

Today, media and public attention is focused primarily on the retail project. However, **the wholesale dimension represents a crucial element for innovation in European financial markets and for maintaining the efficiency of the settlement infrastructures described above**. The evolution of financial markets towards digitalisation and the adoption of distributed ledger technology (DLT) for the management of bonds, shares and derivatives highlights the need to develop transaction settlement mechanisms. Specifically, the trading of tokenised securities requires the application of the Delivery versus Payment principle, i.e. the guarantee that the transfer of a security takes place exclusively in exchange for the simultaneous transfer of funds, in accordance with an atomic settlement mechanism. This term refers to a simultaneous, instantaneous and indivisible settlement, coordinated via smart contracts. In this type of contract,

⁹ [Proposal for a Regulation of the European Parliament and of the Council on the introduction of the digital euro](#)

the transaction is either completed in full and at the same instant for both parties, or it is cancelled entirely, thereby minimising counterparty and delivery risks as well as the waiting times typical of traditional systems. However, for atomic settlement to be implemented at an institutional level without introducing credit risks, it is essential that the monetary leg of the transaction is also settled in risk-free central bank money, in a manner synchronised with the transfer of the security on the DLT. This is the objective of the two initiatives launched by the Eurosystem: Pontes and Appia.

Pontes Initiative

The Pontes infrastructure will ensure the interoperability of market DLTs and TARGET services to enable the settlement of wholesale financial transactions in central bank money. It is based on the operation of three modules:

- **The T2 interface:** this acts as the bridge to the Eurosystem's traditional banking system. When a request is made on the digital platform (DLT) to load cash tokens or make a direct payment, this interface instructs the traditional TARGET system to debit or credit participants' accounts. It also manages the technical accounts required to temporarily 'freeze' the central bank money whilst the corresponding cash tokens are in circulation on the DLT.
- **The ESY DLT platform:** this is a distributed and shared ledger managed directly by the ECB and the National Central Banks (each of which operates a node). Cash tokens are created, exchanged and destroyed on this platform. Within this platform, each participating bank has its own private digital wallet (Dedicated Cash Wallet) to hold cash tokens and exchange them instantly with other participants.
- **The Extended Interoperability Interface (EII):** this is the sole gateway for accessing Pontes. The EII (Extended Interoperability Interface) is responsible for verifying users' identities and coordinating traffic. Furthermore, it manages the special cryptographic security protocol (Hash Link), which functions as a 'synchronised lock' to ensure that payment in euros on the ESY DLT is only unlocked if the security is successfully delivered to the external market platform.

During the pilot phase, Pontes allows users to choose, for each transaction, between direct settlement via T2 and the use of cash tokens on the Eurosystem's DLT, which is expected to become the predominant settlement method as the project evolves. In the cash token-based model, operations will be structured as follows:

- **Access to the platform:** participants access the EII interface via a GUI (Graphical User Interface), which authenticates requests and securely routes them to the specific node on the ESY DLT platform.
- **Provisioning:** participants can manage liquidity by debiting their traditional T2 account and crediting the equivalent amount of cash tokens to the participant's Dedicated Cash Wallet (DCW) on the ESY DLT.
- **Settlement:** payments take place both for ordinary exchanges between wallets on the ESY DLT platform and for complex transactions such as Delivery versus Payment (DvP). In the latter case, the Hash Link cryptographic protocol and the API Gateway co-ordinate the exchange in synchronised mode, ensuring that the cash leg on the ESY DLT is settled only if the corresponding transfer of the asset to the external market DLT takes place.
- **Conversion and return:** although participants may independently convert cash tokens back into fiat currency during the day, in the first phase of the Pilot, at the close of each operating day, the system performs an automatic and mandatory cash sweep. All remaining cash tokens in the DCWs are destroyed and the equivalent balance is credited back to the respective Dedicated Cash Accounts in T2, preventing liquidity from remaining on the DLT overnight.

Pontes is a medium-term initiative, with a pilot phase commencing on 21 September 2026, aimed at connecting the various DLT platforms developed by private operators with the traditional T2 and T2S settlement systems. Full operational capability is expected by mid-2028.

Appia Initiative

Appia represents the Eurosystem's long-term strategic vision for the development of a European infrastructure to support tokenised finance. This initiative **aims to overcome the fragmentation between different DLT ledgers by designing a European Shared Ledger**, a coordinated network of interoperable ledgers. The current project includes not only the euro but also the other currencies available on TARGET Services. The current system design envisages two *layers*:

- **Network layer:** an open and neutral shared utility would be created to pool infrastructure costs. The network would consist of a series of distributed nodes that guarantee the integrity and immutability of the shared ledger through agreed consensus mechanisms. Technical standards would be introduced to prevent fragmentation and ensure European interoperability.
- **Layer of activities and services:** this hosts the programmable logic relating to tokenised central bank money, tokenised securities and commercial deposits. It would use smart contracts to automate various stages of the asset lifecycle (issuance, trading, custody) and enable conditional settlement (DvP/PvP). It would facilitate the modularity of transactions, allowing the integration of multiple financial services into a single operation and paving the way for new business models.

The possible configuration of the infrastructure for the circulation of the tokenised central bank currency and digital financial assets is still under consideration. The debate centres on these two solutions:

- **Single network:** both currency and market assets would circulate on the same network, eliminating the problem of fragmentation at its root and creating a single liquidity pool. However, this would entail a greater operational risk.
- **Interconnected multiple networks:** in this configuration, currency and market assets would circulate across multiple interoperable DLT networks that exchange information in real time. This solution would reduce operational risk but would make the synchronisation of transactions more complex.

The Appia initiative is being developed in close collaboration with the Pontes initiative and builds on the consolidation process launched by the latter. Regardless of the configuration adopted, **the new shared infrastructure would enable the central bank currency, tokenised commercial bank money and digital financial securities to be hosted in a secure, programmable digital environment**. This would promote greater efficiency in settlement processes, improved interoperability between different markets and a reduction in infrastructure costs. **The shared nature of the platform and the adoption of common standards could also reduce certain barriers to entry, foster competition and stimulate innovation within the European financial ecosystem.**

The Retail plan

The proposed regulation put forward by the European Commission sets out the framework within which the retail digital euro would be distributed and used by citizens and merchants. To avoid excessive centralisation and to make the most of existing expertise and infrastructure in the private sector, the proposed regulation adopts a two-tier distribution model:

- **First tier (Eurosystem):** the ECB and the national central banks are solely responsible for issuing the currency, managing the underlying technological infrastructure and maintaining the security of the system.
- **Second tier (supervised intermediaries):** direct distribution to end users is entrusted exclusively to payment service providers (PSPs), such as commercial banks, payment institutions and electronic money institutions (Electronic Money Institutions, EMIs). These intermediaries will manage the opening and closing of digital wallets, customer due diligence (Know Your Customer, KYC), anti-money laundering (AML) compliance, customer support and the provision of operational interfaces (smartphone apps or physical cards).

The digital euro is designed to operate via two distinct technical modes:

- **Online mode:** transactions are settled in real time on the Eurosystem's central infrastructure, ensuring maximum speed and security for e-commerce payments and at physical points of sale.
- **Offline mode:** this allows proximity transactions between devices (for example, via NFC between smartphones or using dedicated cards) even without an internet connection. This functionality is designed to ensure the payment system continues to function in the event of network outages or natural disasters. For offline transactions, the regulations provide for a level of confidentiality similar to that of cash in contactless payments: transaction data and the identities of the payer and payee remain confined to local devices and are not recorded by the Eurosystem's servers or by intermediaries.

A key principle laid down by the European legislator concerns **the non-programmability of the currency. The digital euro will be legal tender** with no restrictions on its use: that is to say, **it cannot have time limits on its use** (an expiry date beyond which the currency loses value) **nor can it be programmed to restrict purchases to specific categories of goods or services**. Programmability may, if necessary, apply to ancillary payment services developed by PSPs (e.g. standing orders), but never to the currency itself. To prevent the digital euro from becoming an alternative form of savings to bank deposits, the proposal sets a maximum balance limit on the amount each user may hold in their wallet, as defined on the recommendation of the ECB. To ensure maximum usability without forcing the user to constantly monitor their balance, the digital euro wallet can be linked, at the user's request, to a linked bank current account, enabling two automatic functions:

- **Waterfall:** if a credit transaction causes the wallet balance to exceed the maximum holding limit, the excess is automatically transferred in real time to the linked account
- **Reverse Waterfall:** if a payment exceeds the available balance in the wallet, the difference is automatically debited from the linked account.

If no such link is in place, for example, for those without a bank account, the wallet can be topped up with cash at ATMs or through authorised operators; however, the two features described above will not be available. In order to ensure universal access to digital public currency and to protect vulnerable groups, the Regulation stipulates that **a range of basic services must be provided free of charge to individuals resident in the euro area**. The mandatory free services include: the opening, management and closure of the digital euro account; top-up (funding) and withdrawal/conversion (defunding) transactions to and from bank money or cash; the making and receiving of payments both online and offline; the provision of at least one physical or digital payment instrument (app or card), and specific assistance during the registration process for older users, those with disabilities or those with limited digital skills. Credit institutions that already offer payment accounts will be required by law to provide the full range of basic services at the request of customers.

Macroeconomic implications and monetary sovereignty

The potential issuance of a digital euro could alter the balance sheet dynamics of financial intermediaries, the transmission channels of monetary policy and Europe's geo-economic balances. There are two key issues: whether the digital euro could alter the transmission of monetary policy and whether it poses a real risk of disintermediation.

At the design stage, the main concern relates to the potential disintermediation of the commercial banking system. As the digital euro would constitute a risk-free liability issued by the central bank, widespread public adoption could lead to a structural drain of liquidity from bank deposits towards the Eurosystem's digital wallets. To protect their funding, **credit institutions would**

be forced to resort to more costly forms of funding on the retail market (by increasing the interest rates on demand or term deposits), **on the wholesale market** (for example, by issuing bonds) **or from the central bank**, leading to **an increase in the average cost of funding and a squeeze on the interest margin**. This could result in a contraction in the supply of credit to the real economy or an increase in the interest rates charged to households and businesses. The literature estimates penetration rates ranging from 1% to 20%, depending on whether households view the digital euro as more similar to cash or to deposits, as well as on other parameters.

According to some analyses, the risk would be even greater in scenarios of financial stress or systemic crisis: the ability to instantly convert commercial bank deposits in euros into central bank deposits with a simple tap on a smartphone could trigger a digital bank run, accelerating the destabilisation of credit institutions experiencing temporary difficulties¹⁰. To counter the risks of disintermediation and capital flight, the proposed regulation and the ECB's guidelines provide for two key safeguards:

- **Balance limits:** a maximum balance limit, for which some studies suggest a threshold in the region of 3,000 euros¹¹. Any amounts exceeding this limit would be transferred to the linked bank account via the waterfall function.
- **No Interest:** the digital euro will not bear interest. The decision to apply a zero interest rate prevents the digital euro from being used as an investment vehicle or a means of accumulating savings, confining it exclusively to the role of a means of payment and preserving the competitiveness of interest-bearing bank deposits.

Thanks to the existence of holding limits and the absence of interest payments, the ECB is convinced that the digital euro does not pose significant risks of disintermediation of the banking system¹². These two safeguards ensure that the system's liquidity remains channelled through the banking system. According to the ECB, in a situation of systemic financial stress, the greatest threat would stem instead from the possibility of unlimited cash withdrawals; furthermore, experience from previous crises has shown significant flows of deposits from fragile banks to those considered safe, rather than from deposits to cash in circulation.

The literature identifies distinct effects on the transmission channels of monetary policy, which tend to offset one another. As regards the bank credit channel, the effect appears ambiguous: if the digital euro were to draw deposits away from banks, the latter would have to replace this low-cost source of funding with more expensive funding or with central bank financing. These two new sources are more sensitive and responsive to changes in the policy rate than retail deposit rates, which are typically stickier. **Greater reliance by banks on sources of funding more closely linked to market rates would accelerate the transmission of monetary policy, strengthening the bank credit channel**. However, if disintermediation were severe, the channel would nevertheless lose importance, as the very volume of loans on which this transmission acts would be reduced. A further channel relates to the synergies that banks can realise internally between demand deposits and lending, which help to contain liquidity management costs: if the digital euro were to draw demand deposits away from banks, the cost of lending could rise, even if the total amount of available funding remained unchanged. However, **where deposit limits are in place, disintermediation is not expected to be severe**. A comparison of different macroeconomic models shows that a 25 bps monetary policy shock produces broadly equivalent effects on inflation and output with and without a digital euro, with differences that, at their peak, amount

¹⁰ I. Angeloni, "[Digital Euro: when in doubt, abstain \(but be prepared\)](#)", European Parliament, April 2023.

¹¹ <https://cepr.org/voxeu/columns/central-bank-digital-currency-remuneration-world-low-or-negative-nominal-interest>

¹² Ulrich Bindseil, Piero Cipollone and Jürgen Schaaf, "[Digital euro: Debunking banks' fears about losing deposits](#)", The ECB Blog, February 2024.

to just a few hundredths of a percentage point¹³. The decision not to pay interest on the digital euro also makes it unlikely that the transmission of monetary policy will be amplified. If, on the other hand, the digital euro were to bear interest, competition with demand deposits could amplify the transmission of changes in official interest rates, albeit subject to the caveats mentioned above.

Conclusions

In conclusion, with regard to the two key issues raised at the start of the previous section, on the subject of disintermediation **the combination of holding limits and the absence of interest is designed to prevent the digital euro from becoming an attractive alternative to bank deposits as a store of value, confining it to the role of a means of payment**. On this basis, the ECB considers that the risk to the stability of the banking system remains contained and that, in stress scenarios, the main threat continues to come from cash rather than from central bank digital currency. An assessment which, in our view, is reasonable.

Regarding monetary policy transmission, a comparison of various macroeconomic models shows that the effects of an interest rate shock on inflation and output are quantitatively marginal. **We see no reason to believe that the digital euro, introduced with stringent holding limits and without interest, would significantly alter the transmission of monetary policy.**

Obviously, these results are based on the design safeguards currently envisaged (holding limits and no interest); a digital euro without such constraints, or one bearing interest at competitive rates, would substantially alter this picture, transforming the Eurosystem into a competitor with commercial banks in the absorption of liquidity. It is precisely to avert such a scenario that deposit limits and the absence of interest payments have been defined as structural, rather than optional, features of the project.

¹³ K. Assenmacher, F. Smets, "[A digital euro: Monetary policy considerations](#)", SUERF, 2024

Appendix

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