

DIGITAL EURO: FEATURES AND CHALLENGES



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The digital euro: paving the way for the digital age

In October of last year, the European Central Bank and the other central banks in the Euro area including the Bundesbank successfully completed a two-year investigation phase of the digital euro project. Now, the Eurosystem is preparing for the possible issuance of the digital euro as a digital means of payment to meet the changing payment preferences and trends of European citizens. Many central banks around the globe are currently engaged in some form of central bank digital currency (CBDC) work with a view to adapting central bank money to the digital age. The Eurosystem is certainly among the pioneers regarding retail CBDC with respect to the progress of its work on the digital euro.

In a nutshell, the digital euro would be European digital cash. European because payments would be possible throughout the entire euro area and the digital euro would also be made and managed in Europe. Digital because payments would be possible using a

smartphone and in online trade. It would also be open to upcoming, new forms of payment and services. And cash because the digital euro would be publicly provided money, i.e., secure, intended for transfer among individuals, and with a high level of privacy protection. However, it would not replace cash. The digital euro would complement physical cash, offering individual users more freedom of choice by providing a secure and accessible payment solution. And that would be the case in almost all everyday payment situations – be it at the checkout in retail stores, among friends and relatives, when making purchases online, or even when making payments to or receiving payments from public authorities. A digital euro would be free of charge for private individuals for its basic functions and could be used both online and offline, that is to say without a connection to the internet, as well as for person-to-person (P2P) payments. No other digital means of payment in Europe currently offers all these functions. The digital euro would be an all-in-one solution for retail payment transactions.

Furthermore, a digital euro would make a significant contribution towards strengthening the European payment infrastructure and supporting the strategic autonomy of Europe's payment ecosystem. The European payments landscape is highly fragmented. 13 out of 20 countries in the euro area do not have their own national card scheme and therefore rely solely on internationally operating providers. Despite a number of initiatives over the years, 25 years after the introduction of the single European currency, the euro, there is still no European payment solution that can be used across the entire euro area and that runs on a European infrastructure. Furthermore, there has been a growing trend towards cashless payments in Europe for many years now. According to the SPACE study conducted by the ECB, cash payments in the euro area fell from 72% in 2019 to 59% in 2022. At the same time, e-commerce is booming. However, the payment solutions for the digital world are typically run on non-European payment infrastructures.

This raises the legitimate question as to whether Europe can afford to be heavily, or even solely, dependent on a hand full of international players when it comes to an infrastructure as critical as its payment system. The rising geopolitical tensions in recent years have ultimately highlighted

the risks that such a dependency can entail. With a digital euro, Europe would have a payment solution in the form of public money for retail payments across the entire euro area – and that under European governance. Accordingly, the digital euro would strengthen the strategic autonomy of Europe and increase our resilience.

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However, for the digital ecosystem of the future, Europe needs more than just a digital euro for retail transactions. There would also be benefits in a new form of digital central bank money for banks and other financial institutions: wholesale CBDC. Experiments with distributed ledger technology (DLT) can be observed across the entire economy. And when it comes to wholesale DLT-based financial market transactions, central bank money is the safest and most liquid settlement asset. Here, too, the payment and settlement systems need to adapt to changing needs. The Eurosystem, together with market participants, is therefore examining a number of so-called interoperability solutions that connect the DLT world with the payment system infrastructure. One of these solutions is the “trigger solution” developed by the Bundesbank which is quick and easy to implement and almost risk free. It is based on a bridge device that connects the DLT world with conventional payment systems. It is remarkable to see how the private and public sectors are joining forces to harness the benefits of new technologies for capital market transactions.



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Digital euro: the role of public money in the digital age

Money is an everchanging tool and the central bank digital currencies are only the latest milestone in a long journey, which covers a wide range of very different legal and technological means, from spices to metals, to eventually land onto paper and digital. In this evolutionary process, the CBDC is the natural response to the fact that, in an increasingly digitalised world, everyday life and transactions take place increasingly through (or even in) a digital environment. Physical central bank money, such as banknotes and coins, represents a decreasing percentage of retail payments. CBDCs are therefore needed to ensure that fiat money holds its role as a public good and as the anchor of the payment and monetary system, also to safeguard financial stability and strategic autonomy.

The digital euro project is the Euro area answer to the challenges posed by this scenario and will safeguard the role of public money as the cornerstone of our payment system. However, the digital euro will not develop from a blank sheet of paper: it will need to find its own space in an already advanced and competitive payment ecosystem. Thus, to be successful, it should be built

on the same formula that has made the success of physical public money: leveraging on the expertise of financial intermediaries in distribution and customer relationship while ensuring high levels of security, affordability and ease of use. The current technical and legal activities – undergoing in a coordinated way at both the Eurosystem and the co-legislators' level – are aiming at striking the right distribution of roles and responsibilities in this new public-private partnership. The distribution of the digital euro should be carried out by payment service providers, who are best positioned to do so, but will be regulated so to guarantee that both consumers and businesses enjoy high levels of safety and affordable costs. Digital euro accounts should be large enough to allow the most common payment transactions but, at the same time, will be designed in order not to impact negatively on banks' liquidity requirements nor their role in the financing of the economy.

**A balanced allocation
of tasks between public
and private actors will be
key for the digital euro.**

With respect to the costs associated to the digital euro, the use of the digital currency should be affordable to all users (with free basic services offered to natural persons) while ensuring that payment service providers recover the costs associated with the distribution of the new instrument. Also, the digital euro shall provide for a high degree of privacy while always securing the need of authorities to access data to comply with relevant tax and AML/CFT requirements. With respect to the latter, while recognizing the need for (as long as possible) a neutral approach between physical currency and CBDC, one should also keep in mind the specific challenges that the digital support raises, and the need to address them with adequate regulatory safeguards. From a functional point of view, the digital euro is in fact much more than a simple digital version of banknotes and coins: it can accommodate an increasing number of use cases, from P2P proximity payments to credit transfers to government and businesses.

Thanks to its flexibility, security and ease of use, the digital euro could play a pivotal role in the European strategy for financial inclusion, an issue that has not received adequate attention in the current debate. In a world where cash access and usability is diminishing and electronic devices are ubiquitous

in every social class and geographical area, the combination of a digital euro account with a payment instrument incorporated on widely distributed and easy-to-use physical medium (e.g., smartphone, physical card, etc.) could create a universal and low-cost financial mean for financial inclusion, thus overcoming the difficulties that other solutions have experienced in the past (such as the PAD's basic account). The G7 under the Italian presidency is examining the role played by CBDCs' projects in promoting financial inclusion to better understand their potential as an entry point to the formal financial system in both advanced and developing economies. It is worth mentioning that the know-how acquired with a digital euro could also spill-over to other important areas where CBDCs can make the difference, such as cross-border payments and the lack of innovative means for settling financial transactions recorded on DLTs.

In sum, the benefits of the introduction of a digital euro seem to largely exceed its cost. The ECB and co-legislators are working, together with all relevant stakeholders, to ensure that all risks are taken care of and to provide for the smooth roll-out of this new payment instrument. If public and private sector join forces, and the roles and responsibilities of the different parties are clear, the digital euro will guarantee the innovativeness, competitiveness, inclusiveness and strategic autonomy of the Euro area also in the digital age.



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European sovereignty: the power of a synergistic path for EU retail payments

Europe is at a pivotal juncture for the sovereignty of its retail payments. The integration of the digital euro and private sector payment initiatives, such as the European Payments Initiative (EPI), is not just a strategic move but a necessity to achieve European independence in digital payment solutions. Understanding and utilising the symbiotic relationship between the public and private sectors and their potential to reshape the European financial ecosystem is key to long-term success and competitiveness.

The Digital Euro: A Pillar of Stability

The digital euro for retail payments aims to provide a secure and efficient digital form of central bank money that complements cash and existing electronic forms of money. The focus of its design should be on the long-term resilience of the European payment system by providing a central bank payment infrastructure that efficiently

interoperates with the private sector infrastructures for retail instant payments in the Eurozone.

Like the existing Eurosystem infrastructure for instant payments, TARGET Instant Payment System (TIPS), the digital euro platform will be important for innovative digital payment solutions for citizens and businesses in the Eurozone and beyond. The seamless convertibility of private forms of regulated digital money with the digital euro will facilitate public trust in the accessibility of central bank money in the digital era.

In the context of stability, it must be further underscored: the digital euro for wholesale payments in capital markets, interbank and cross-border payments is equally essential for stability, and arguably, assumes an even greater role in strengthening the international role of the Euro. Consequently, it becomes an absolute necessity for the Eurosystem to devise a well-defined, tangible roadmap for a wholesale digital euro to address these strategic objectives.

EPI, Bizum & Co: Payment Solutions for the EU by the EU

The European Payments Initiative (EPI), Bizum, Bancomat, and MB Way are examples of collaborative efforts of EU banks and payment service providers to create payment solutions that work consistently across the EU. They aim to increase competition in the EU payment landscape and complement well-functioning national solutions.

A strong public-private symbiosis is the key success factor for our sovereignty strategy.

The private sector is in the middle of further advancing and rolling out the payment solutions of the future. Time to market is key to be successful considering the fierce competition. The fast-changing payment needs and habits of citizens and businesses center around future technology on devices and in apps changing the payment preferences of citizens and constantly challenging the readiness of businesses.

In market segments where competition is currently inefficient, these strategic initiatives are expected to drive down costs for businesses when accepting payments. The overarching objective is to provide state-of-the-art and multifunctional payment solutions

that can be used across the European continent for all EU currencies.

Synergy for Sovereignty

With the introduction of open banking under the revised Payment Services Directive (PSD2), the EU kicked off a transformation towards a vibrant payment market. The ECB, together with the private sector, can build on that foundation. The integration of the digital euro with private sector payment solutions and initiatives brings significant benefits towards achieving European sovereignty in digital payments.

At the same time, existing and well-established payment solutions continue to play an important role in facilitating financial and digital inclusion across all Member States, acknowledging the diversity of payment cultures.

By bringing these respective strengths together, the ECB and the private sector can develop a joint roadmap towards a shared vision of EU retail payments.

It is the combination of these different elements of the payment landscape that will unleash the full benefits of the digital euro. As the Bank for International Settlements proclaims in its vision for a future monetary system: improving the old, enabling the new.

A Joint Vision for the Future

In conclusion, a European retail payments strategy centered around pan-European private sector initiatives and the digital euro is a critical step towards strengthening the EU's strategic autonomy, sovereignty, and competitiveness in the digital economy based on a strong and resilient payments sector.

As Europe navigates the intricacies of the digital age and the challenges posed by the recalibration of the geopolitical landscape, understanding the necessity of efficiently integrating these initiatives and wisely deploying the power of public and private sector resources for the best outcome is crucial in ensuring that the EU asserts its role in the world.



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Digital Euro: a sandbox for the virtual European society?

Recently, we observed a constant plea for further European integration through completion of a series of incomplete “unions” (e.g. Capital markets and Banking) or through new concepts, such as a single European digital market, and a Savings and Insurance common markets. This is the result of what we learned through the recent experience of the Covid crisis and the Ukrainian war. In a conflictual and fragmented geopolitical context, where new emerging powers are challenging the political and economic relevance of the European Union, we rediscovered the value of sticking together.

This is where the Digital Euro project could make the difference: it can be seen as the supply of another payment method to the European citizens, or a ‘competitive need’ as other projects around the world are racing to introduce and launch CBDCs. Broadening our horizons, the Digital Euro is a quantic moment, akin to when the physical Euro became part of our daily lives back in 1999, but with much more potential to become the testing ground of the new Digital European Society.

Therefore, we could imagine the project as a “sandbox” to test and link a series of other innovations, a safe place where it will be possible to landscape the Digital Europe, not leaving anyone behind, as the European Commission’s Digital manifesto proclaims.

We are entering an era where it will be crucial to redefine the basic services we define as European Public Goods, alongside creating new forms of Universal Services for the digital and virtual spaces. Hence, the challenges and opportunities, if we will allow the project to be a transformative and not only a normative place. Some ideas on how to deliver this:

Inclusivity as basic principle – The Digital Euro will be delivered to every European, even the ones not banked or not used to technology. A substantive effort that will need many different partners, with the capacity to reach out every single European community, closing the digital gap created by demographics, territorial distribution (marginal zones) and education to digitalisation. Inclusivity is also linked to supporting citizens, dispelling fears and concerns about the safety and privacy characteristics of immaterial currencies and digital finance assets. In a world getting more and more used to e-commerce, we still need the physical reach.

A gateway to innovation – As the European citizens will get accustomed to the Digital Euro, it will be possible to disseminate other important concepts to create that digital landscape defined above. Digital or E-IDs, tokenisation of assets and launch of health services through wallets and apps are examples of add-ups to the Digital Euro, as they all need a coherent and associative-connected digital platform, available on-line and, more relevantly, off-line. The Digital Euro will imply convergence between financial and digital education. And this is related to tokenisation, the main revolution in fieri behind the CBDCs: we will have to transform in digital value equivalents all our assets and holdings, so that any possible financial or commercial transaction will be based on one own’s tokenised profile. A concept still elusive to many, but a true gamechanger. The new generations in Europe are already accustomed to digital assets, through gaming and social platforms, or, in some cases, to trading crypto or NFTs via microtrading platforms.

Interoperability and cross-border functionalities – The capacity to access one’s wallet or one’s digital Euro will pose challenges in a fragmented payment network, with different suppliers and levels of service across European countries. It is not only about

finding the last European left behind, but also to allow a seamless experience when the Digital Euro is used. This will imply careful consideration of regulatory issues and integration of different payment models-platforms.

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Revolutionising the banking model – The universality of the Digital Euro and its capacity to become the basis for further rethinking of the relationship between citizens and their own physical-digital space will impose a redefinition of banking services, transforming the industry of providing payment, credit or supporting clients for their savings and investment needs. It will be key for the main financial players to see the opportunity to transition their clients into a new world, where formation of margins, supply of financial services of any kind and investment allocation will impose more attention to pricing of services and fees. Once again, if properly engineered, the next phase of the Digital Euro project could become a space where citizens and financial institutions redefine together nature and scope of “banking 3.0”.

These are only some of the initial challenges for the Digital Euro project, becoming rapidly a quantic moment for the birth of a “Digital European Union”, alongside a new European Virtual Society. Ergo, ready for the challenges and opportunities ahead.