DIGITAL EURO ROLE AND CHALLENGES IN THE EU PAYMENT LANDSCAPE



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Digital public money for everyday life

Our everyday lives are turning increasingly digital. Take, for example, digital-only products like video streaming services, which are already commonplace today. But combinations of digital and analogue processes are ubiquitous, too. An e-commerce store offers access to a broad or highly specialized selection of products.

A digital purchase there then turns into a delivery in the analogue world. Many people see these processes as entirely routine, and evidently have great interest in letting digital elements intrude into their everyday lives. Public money is lagging behind these advances to a degree: central bank money is not yet available to the general public in digital form, only as physical cash. In the longer run, central bank money as legal tender may develop into a niche product, because people tend to opt for payment instruments that work smoothly in any payment situation.

Against this background, it is only reasonable for central banks to think about adding a new digital dimension

to central bank money. This is why the Eurosystem is considering a digital euro. We have a clear vision of what the digital euro should be: digital money that people in the euro area can use everywhere in their everyday lives.

To be an option that people are likely to choose, any digital means of payment needs to satisfy the requirements of simplicity, reliability and security. Those standards might sound self-evident, but it will take a huge effort to achieve them. After all, what makes digital money and using it simple?

First, it has to be usable in nearly all the payment situations people usually encounter. That's why the Eurosystem is envisaging the entire range of scenarios, from payments at the point of sale, to person-to-person payments, both in physical proximity and remotely, through to e-commerce. However, a payment instrument not only has to be usable in as many situations as possible - people also need to see it as convenient. For that to happen, various decisions have to be taken. For example, how should a payment with a digital euro be triggered? Contactless payments are widely used and popular nowadays. Offline payments could add a new dimension to this technology and bolster resilience in the system and privacy in payments. However, QR codes have potential as well, since they can generally be used in all scenarios, including for remote payments, which are not feasible with contactless payments.

Another aspect of the simplicity requirement is how people can access the digital euro. Access must be possible without barriers and thus, ideally, via familiar and pre-existing channels. Hence, financial intermediaries are ideally placed to make this possible. Moreover, leveraging relationships and players would promote the healthy coexistence of private and public money. The reliability of the digital euro is no less important. One dimension of this, which is also closely related to simplicity, is the guarantee to the payer that the digital euro will be widely accepted.

The digital euro's envisaged status as legal tender provides a sound footing for this. For merchants, meanwhile, the widespread rollout of the digital euro owing to its status as legal tender will, if anything, create cost advantages. The more merchants accept the digital euro, the more efficient it

will be for each additional merchant to do the same at their own point of interaction. In practice, merchant fees could be attractive due to both strong competition and regulatory supervision. The security of payments relates primarily to data security and privacy. The key here is to guarantee the best-possible level of protection while giving users the opportunity to retain control over their data.

With the digital euro, data would not be exploited by intermediaries without the user's consent, and the technical design would make it impossible for the Eurosystem to trace transactions back to identifiable users. However, a digital euro that is designed for widespread retail use will only be a success if the private sector is also on board. Banks as the most important group of intermediaries would play a crucial role as an access point to digital euro.

Digital money that people in the euro area can use everywhere in their everyday lives.

To allow banks to integrate the digital euro as seamlessly as possible into their existing systems and processes, it will be important for the digital euro to reuse as many of the existing standards as possible so that the integration costs remain low as a result. This is what the scheme behind the digital euro is also intending to achieve.

On the road towards delivering simple and secure payments with a digital euro, some challenges still lie ahead of us. For example, a fraud detection system has to be set up in combination with the highest levels of privacy. It should be solved in public-private partnership that might allow infrastructure for various products to emerge beyond the boundaries of the digital euro. And this could also broaden the view: from digital money for the people to a standard-setting piece of European infrastructure.



ALEXANDRA JOUR-**SCHROEDER**

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Towards a digital euro?

The world of finance is undergoing a seismic change as a result of the digital revolution. As people increasingly prefer to pay digitally, the use of cash is declining, although it will not disappear. In line with this, central banks around the world are now looking into issuing their own digital currencies. For the euro area Member States, the ECB is investigating the possibility of introducing a digital euro, as a complement to physical cash. It would be a digital form of central bank money that could be used by citizens and businesses alike for their retail payments, and would be convertible one-for-one with cash.

Private money - bank deposits, and electronic money solutions - ultimately relies on our confidence that it can be converted, at par, into central bank money. Thus, the smooth functioning of our payment system ultimately depends on central bank money playing its anchor role. But for this to continue to be the case, central bank money should evolve with changing technologies, payment habits and financial ecosystems. Hence, the digital euro project.

There are, of course, many questions about how a digital euro would work in practice. Answering these at this stage is not easy, as the ECB continues to reflect on these matters. It has completed its initial, exploratory phase of this project. In October 2021 it moved on to the investigation phase, which involves considering what a digital euro should look like. This phase is expected to conclude in October of this year.

In parallel, the European Commission has recently taken two important decisions. Firstly, we have adopted a proposal which safeguards the use of cash as an accepted form of payment. Secondly, we have proposed a Regulation establishing the digital euro and regulating its essential aspects. This would allow the ECB to go ahead and issue a digital euro, if it decides that it would be worthwhile doing so.

Regarding consumers, a digital euro needs to support financial inclusion. A big advantage of a digital euro is that it could potentially be used by those without a bank account. In addition, paying in digital euros could be possible even without an internet connection. The digital euro should also have usage and service features that are simple and easy to handle for all, including for people with disabilities and older persons. And its distribution should be as broad as possible, including for those who do not have, or wish to have, a bank account. This is why we propose that some public authorities and post offices in Member States distribute the digital euro.

> A digital euro could offer many potential advantages, both for consumers and companies.

Another key consideration is data privacy. The ECB will have to implement data protection rules agreed by the European Parliament and the Council, under the supervision of the European Data Protection Supervisor. The Commission proposes that citizens be given the possibility to use the digital euro without internet connection for proximity payment, with a level of privacy comparable to cash: no bank will see what you spend your money on. Also, all data will have to be encrypted so that neither the ECB nor national central banks can identify individual data transactions. In today's digital payment systems, this level of data protection is unprecedented.

How will financial services firms be impacted by the launch of a digital euro? All payment services providers under PSD2 should be in a position to distribute the digital euro. We expect competition in the market to best serve people and businesses, including by the provision of value-added services, e.g. conditional payments or the ability to split person-to-person payments among multiple parties. Thus, the digital euro should lead to the development of innovative, pan-European products around this new ecosystem.

Finally, the digital euro should be designed so as to avoid potential adverse impacts on financial stability and the provision of credit to the real economy. The excessive use of the digital euro for investment purposes, and the associated risk of sudden, large shifts from bank deposits to the digital euro, should be avoided. This is why the Commission has proposed that digital euro holding should not bear interest.

Overall, a digital euro could offer many potential advantages, both for consumers and companies. And we also see strategic reasons for doing so, given that other central banks are also moving forward in this area. Once the ECB has completed its investigation phase, it will decide whether to initiate a preparation phase to look at developing and testing the new digital currency. We look forward to working closely with them on this project.



MINDAUGAS LIUTVINSKAS

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The uptake of the digital euro will define its success

The ECB has made considerable progress during the investigative phase of the digital euro project, and it is now evident that the technical solutions exist to satisfy various objectives raised by policymakers. A significant step forward has also been taken on the legal side with the Commission's proposal to establish the digital euro as a legal tender.

Overall, progress on the legal and fronts suggests many promising features of the digital euro to foster innovation, enhance financial and digital inclusion, and make daily payments cheaper, more efficient, and more convenient for individuals and businesses.

However, reaping the full benefits of the digital euro will largely depend on the level of uptake. Broad adoption of the digital euro will be necessary to create market effects and economic incentives that could further boost digital euro usage. In this respect, I would like to highlight a few points critical to the project's success.

The digital euro should be widely accepted in all areas of economic life, with as few exceptions as possible. If any exceptions are granted, they should be aimed exclusively at micro and very small businesses. Larger exemptions may hinder incentives to use the digital euro and lead to unnecessary market fragmentation.

The digital euro needs to be universally and conveniently accessible. The onboarding process should be smooth and straightforward for everyone, including the unbanked or underbanked segments of the population, thereby promoting greater financial inclusion and empowering individuals to improve their financial well-being. Being a public good, basic services of the digital euro should be free of charges, while costs for businesses should be competitive compared to existing payment services.

Offline payments will be essential to match digital euro functionality with physical cash. It would provide a material improvement compared to existing digital payment solutions, which do not have offline functionality and it could be a compelling incentive for people to start using the digital euro, even for those without a private bank account.

The digital euro should promote competition and innovation by securing a level playing field for companies that aims to build front-end solutions. This should ensure that the digital euro will become a catalyst for innovation, positioning Europe at the forefront of the digital revolution. Close and continuous cooperation with market participants will be critical to leverage the benefits of public-private partnership.

Effective communication will be key to build the necessary trust for widespread adoption.

Effective communication will be key to build the necessary trust for widespread adoption. Three pivotal points need to be clearly and comprehensibly conveyed to society to dissipate unwarranted concerns.

First, the digital euro will not replace cash but will supplement it. Moreover, the legal status of cash will even be strengthened by the European Commission's accompanying legislative proposal on the legal tender of euro cash.

Second, the digital euro will have robust security measures to safeguard user data and privacy. It is essential to emphasize that the level of privacy of the digital euro will be equivalent to that of private digital payment solutions, while offline payments will provide even greater privacy, as authorities and intermediaries will be unable to access information about where the money was spent.

Third, it is crucial for all relevant public authorities to proactively disseminate information about the added value that the digital euro will bring to daily life for both businesses and individuals by introducing a new, fast, reliable, and convenient payment option available everywhere.

At the time of issuing the digital euro, we must be certain that the system will work as intended in terms of scalability, reliability, and speed. We need to be on the safe side that all potential issues are addressed in full before the digital euro becomes available to the public. In this case, patience and thoroughness are more important than speed.

The widespread adoption of the digital euro is paramount not only to unlock the potential economic benefits but also to achieve broader political objectives. With a large user base, the digital euro can pave the way for the emergence of a truly pan-European payments system, competitive with established payment service providers. Moreover, broad uptake may serve as a safeguard against the widespread adoption of foreign CBDCs or private global stablecoins, ensuring the financial sovereignty of the euro area in the digital age.

Finally, it is welcome that the ECB has announced the exploration of wholesale CBDC solutions that have the potential for significant efficiency improvements, with likely implications for the euro's stronger international role.



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Thoroughness versus speed -A digital euro as a public-privatepartnership

Central banks around the world are working on central bank digital currencies. As early as 2014, the People's Bank of China launched a retail CBDC project and has been testing their digital Yuan since 2020. So far however, the eYuan appears not to have been met with widespread acceptance among the Chinese population, even though users receive discounts for public transportation and other services when paying via CBDC.

In Europe, the European Central Bank has been conducting research around a retail CBDC since at least 2019. The initial spark was not the rise of Bitcoin, but rather the announcement of big techs to introduce global private currencies, in particular Meta's former plans for a Libra stablecoin. But while the Libra-Diem project has been terminated due to regulatory and public backlash, the ECB's response in the form of a digital euro is alive and well.

The political objectives mentioned by the ECB to make the case for a digital euro, such as maintaining monetary sovereignty in the digital age, are legitimate. They are by and large shared by the financial industry. However, the Commission's proposal should be examined closely to determine whether it is actually conducive to these overarching strategic targets.

The development and issuance of the digital euro will entail considerable costs, and significant parts of the population perceive the digital euro as a surveillance tool and potential monetary policy instrument. Taking these concerns seriously is of elementary importance against the backdrop of the rise of authoritarian and populist political forces. Public concerns should be addressed and the digital euro should avoid adding fuel to the fire of regressive forces in EU integration. Unfortunately, the remarks on data protection in the EU Commission's proposal are open to contradictory interpretation. In Europe, liberal values, self-determination and decentralization must be strengthened. Whether the mammoth project of the digital euro sufficiently embodies these values in its current setup remains questionable.

With these considerations in mind, the current proposals give more rise to disillusionment than euphoria. The currently envisaged design of the digital euro would be no more digital or innovative than existing payment solutions within the SEPA or a future framework under the European Payments Initiative. A market with different types of payment transactions provides healthy competition and pushes down unit costs. Innovations such as instant payment already exist.

EPI would be a suitable partner to create a large acceptance network for a digital euro.

At the risk of citizens not caring whether they use central bank or commercial bank money, rather coercive measures are planned - such as compulsory acceptance of the digital euro as legal tender. In order to achieve and maintain sovereignty in payments, it would appear to be more conducive for the Commission to pursue an industrial policy strategy hand in hand with European providers. The risk of detrimental effects to a competitive financial sector is not to be underestimated. Innovations will hardly be possible under the planned compensation model.

A digital euro transaction is more than just pushing money from A to B. Processes such as fraud prevention, refunds or anti-money laundering procedures will have to be run in the background by banks. Therefore, it can make sense to rely on proven payment infrastructures such as EPI. EPI is a pan-European project, relying on established European standards and involving the European banking community. There are also major overlaps between a digital euro and EPI in the considered use cases. For these reasons, EPI would be a suitable partner to create a large acceptance network for a digital euro in operational implementation and thus offer customers the best of both worlds. For this, it is important to introduce clear requirements and roles and to delineate them from each other.

Responsibilities of commercial banks. payment providers and the ECB should be clearly defined and separated. Citizens ultimately expect a digital euro as the doppelganger of cash, storable in a decentralized manner and largely anonymous. It should be examined whether this can actually be better realized in an account or by means of a token. The guiding principle for the digital euro must be to design it as much as possible as digital cash, but with the least necessary amount of structural policy by the ECB.

While Libra's days are numbered, those of the digital euro are beginning only now. With the perceived threat of a global private big tech currency off the table for now, the ECB could indeed take more time to develop a digital euro as a retail CBDC. In the meantime, a wholesale CBDC could be introduced. This would allow the foundation to be laid and initial experience with the technology and infrastructure to be gained. The interim period could then also be used for more in-depth impact assessments on part of the ECB and the Commission. This way, the unfavorable trade-off between speed and thoroughness could be avoided.



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The Digital Euro: a necessary evolution or an uncertain solution?

As we progress ever deeper into the digital age, the concept of money continues to undergo a transformative shift. One manifestation of this shift is the 'Digital Euro', an initiative from the European Central Bank (ECB) to introduce an electronic counterpart of the single European currency. But as we usher in this new era of finance, a critical question arises: Is the Digital Euro necessary, or is it a solution in search of a problem?

At its core, the Digital Euro aims to modernise European payments by providing an electronic alternative to physical cash. It is part of a broader global trend towards central bank digital currencies (CBDCs). However, the push for a digital version of Europe's single currency has met with a mixed response, generating as much debate and confusion as it has interest and anticipation.

While the declining use of cash is one driving force behind the initiative, the threat from privately controlled digital currencies and other nations' CBDCs is another. However, as the threat from private cryptocurrencies continues to diminish, and the ubiquity of digital transactions grows, the necessity of a Digital Euro comes into question.

Most citizens and businesses are already, in effect, using digital money via contactless cards or mobile banking apps. For many, the nuances of central bank currencies are likely hard to grasp, and the advantages of a Digital Euro over existing payment systems remain nebulous. Thus, policymakers must grapple with the perception of the Digital Euro as a solution in search of a problem.

Ignazio Angeloni, a former member of the ECB's Supervisory Board, summed up the challenge succinctly in a recent interview: "What is the compelling reason for making this reform? This is the big unanswered question. I don't see any big failures in the market that require the public sector to step in and provide a Digital Euro." Therefore, it is apparent that the key to the project's success is the ECB's ability to build a more persuasive case that would rally private sector support and incentivise rapid uptake by consumers.

A closer look at the proposed Digital Euro and the European Commission's accompanying legislative proposal also reveals some pertinent details that should be considered to ensure the project is a success.

Chief among these is the role of nonbanks, such as American Express, in the distribution of the Digital Euro. Banks have traditionally been the primary facilitators of payments in Europe. However, in the digital age, non-banks, including fintech companies and other digital payment platforms, have taken on a significant role in the financial ecosystem. Therefore, it is crucial that the Digital Euro scheme does not privilege banks over non-banks. Rather, a level playing field should be maintained to promote competition, innovation, and widespread accessibility.

> It is crucial that the **Digital Euro scheme** does not privilege banks over non-banks.

Another crucial point is the limit on the number of Digital Euro accounts a citizen can hold. Initially, the ECB proposed restricting individuals to one account, to control the number of digital euros in circulation. This suggestion, however, seems unnecessarily restrictive. Instead, citizens should have the freedom to own multiple digital euro accounts, as the industry is pleased to see reflected in the Commission's proposal. This outcome would mirror the current practice of having accounts with multiple banks and encourage a more dynamic and adaptable digital economy.

Lastly, it is worth mentioning the debate around the fee structures that payment service providers (PSPs) can apply to Digital Euro transactions. While safeguarding consumers and merchants from excessive fees is a legitimate concern, putting a cap on these fees would inadvertently hamper the spirit of innovation and competition that drives the financial industry.

The argument here is subtle but profound: by levelling the playing field and allowing PSPs to set their own fees, the market becomes a fertile ground for innovation. PSPs will be incentivised to differentiate themselves by offering novel services and superior experiences to their consumers and merchants, beyond just competing on the price. The freedom to set fees according to the value they provide would, therefore, promote a more robust and dynamic digital euro ecosystem. Any move to restrain this freedom by enforcing low fee limits could stifle industry investment and innovation. This could seriously hinder the successful execution of the initiative, potentially resulting in a less successful uptake of the Digital Euro.

As policymakers, regulators, and the public at large struggle to comprehend the complexities of this ambitious project, one thing is clear: while the concept of a Digital Euro holds the promise of a more streamlined and inclusive financial future, the devil, as always, is in the details. Policymakers, legislators, and stakeholders must carefully weigh the nuances of its implementation to ensure that this evolution truly benefits the economy and society at large.



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Introducing the digital euro

The launch of the digital euro (d€) seems increasingly imminent, following the European Commission's June proposal outlining the framework for a possible d€. The digital euro would grant all Europeans access to digital money from the central bank. Given its commitment to safeguard financial stability, the ECB is expected to establish a ceiling for the amount users can possess. The d€ is primarily envisioned as a method of payment rather than as an investment instrument.

What are the expected challenges for citizen adoption? How might incumbent financial institutions be affected?

To examine the citizen adoption challenges ahead of us, we should understand that the EU institutions are not necessarily trying to address significant market failures by introducing the d€. Instead, they are focused on two issues that do not directly personally affect EU citizens. This raises a particular challenge regarding the adoption of the d€ among EU citizens, raising key questions: how can the d€ be introduced without damaging the payments ecosystem and/ or causing financial instability?

1. Market failures

Addressing the affordability of the current payment ecosystem is not the d€'s main goal. Indeed, the current legislation on payment services (PSD2, soon to be replaced by a revised PSD3 and Payment Services Regulation (PSR)) has proven to be effective at

limiting costs for private individuals and merchants, and the European Commission (Commission)'s legislative proposal for a d€ also foresees a fair compensation for payment service providers (PSPs) distributing the d€. Nor would the d€ be the most cost-effective solution to solve other issues cited by the European Central Bank (ECB), such as a purported lack of cross-border payment functionality and lack of inclusivity. After all, EU legislation could in theory simply mandate universal acceptance across the EU or impose requirements to make payments solutions simpler and more accessible.

2. Issues to be fixed by the d€

The EU institutions are advancing the digital euro project for two primary reasons: to ensure that public money remains central in the economy and to strengthen the EU's open strategic autonomy. These considerations are significant in the long term but not urgent in the short term.

On the topic of public money, studies indicate a decreasing use of cash. While cryptocurrencies have not gained widespread traction yet, there's potential for successful future cryptocurrencies, potentially released by major technology firms. In a scenario where the role of cash is minimised and private payment solutions are dominant, the ability of central banks to maintain economic stability by managing the supply of money would be limited.

Regarding open strategic autonomy, the EU institutions are concerned about the dominance of non-EU PSPs in the EU and the possible rise of a third-country central bank digital currency. In future crisis scenarios, the EU wishes to ensure that it can limit foreign influence on the EU economy and fall back on EU-owned infrastructure.

3. Particular issues arising from d€ goals: holding limits and AML/CFT considerations

The d€ would impact the EU payments ecosystem which, despite its alleged lack of EU-based payment services alternatives, is delivering acceptable results to EU citizens. This is recognised by the ECB, which has stated the aim of the d€ as complementing, not challenging or crowding-out existing payment solutions. It is difficult, however, to achieve this goal, finding the right balance between attractiveness and limitations. The d€ should offer the same benefits as cash and not offer benefits that would make it more attractive than the offerings of private PSPs. It should also incorporate a holding limit, to ensure that the d€ can only be used for payments and not to store value.

Establishing an appropriate holding limit demands the careful consideration of various factors. Primarily, it must not be set too low, as this may make the d€ unattractive to citizens. On the other hand, setting the limit too high could lead to adverse consequences enabling large-scale migration of citizens' savings to d€ accounts, possibly threatening mandatory banks liquidity buffer. Simultaneously, certain banks and PSPs might be forced to make substantial changes to their business models.

The damage stemming from failing to finding the right balance would be disproportionate to the (primarily futureoriented) benefits of the d€ aims from safeguarding the role of public money and achieving the EU open strategic autonomy. The assessment process for holding limits should be comprehensive and robust, avoiding frequent or politically motivated adjustments. These limits should be established with a long-term perspective, based on sound economic principles and data-driven analysis in order to instil confidence among citizens and businesses, and set a conducive environment for financial planning and investment. Minimising unnecessary holding limit fluctuations is required for financial security and sustainable growth.

Since the d€ will be as similar to cash as possible, with the same level of privacy and accessible to all citizens, including those without bank accounts and because the d€ would not be limited to specific purposes, the level of AML/ CFT risk of the offline use of the d€ would also depend on the amount of the holding limit.

Digital euro various use cases and design - how will EU citizens access and use the d€?

The proposed d€ Regulation states that it may be distributed both by regulated private PSPs and by designated public institutions such as post offices. In the fourth and most recent progress report, the ECB assesses that there are enough European PSPs ready to develop d€ solutions and that a d€ could be smoothly integrated into the existing European payment landscape to serve different use cases. This would mean that users would be able to store the d€ in a digital wallet on their phone or within their existing banking apps. Banks could offer 'waterfall' and 'reverse waterfall' mechanisms, automatically transferring any amount in excess of the holding limit onto a savings account or private sector payments solution. This supposes however to explore the potential synergies with existing payment services legislation, as well as the feasibility of incorporating offline functionality that many consider as a vital for the d€ inclusivity.