

Digital Euro: a technical explanation and some policy reflections to enhance digital payments in the European Union

- GLORIA HERVÁS ORTEGA, Global Head of Public Policy Banco Santander.
- CHRISTIAN CASTRO TORRES, Head of Public Affairs CaixaBank.
- ÁLVARO DE SALAS LASAGABASTER, Member of the Steering Committee-Financial Services Indra Minsait.
- FRANCISCO URÍA, Global Head of Banking and Capital Markets KPMG International



ISBN: 978-84-09-73596-9
Edita: Instituto Español de Analistas
Imprime: Reimpventa

Índice

Foreword	4
1. Introduction: the state of play	7
2. High-level Technological Architecture and key technological challenges	11
3. The digital euro and financial stability	18
4. Other policies affected by the digital euro: potentially concerned “public goods”	22
5. The digital euro and the debate on competitiveness and growth: what role can the digital euro play?	25
Documentos de trabajo de la Fundación del Instituto Español de Analistas	31
Entidades Patrono de la Fundación del Instituto Español de Analistas	34

The views and opinions expressed in this paper are those of the participants and do not necessarily reflect the views or positions of any firms and entities they represent. We are grateful for discussions, comments and suggestions from Santiago Fernández de Lis, BBVA



INSTITUTO
ESPAÑOL
DE ANALISTAS

DESDE 1965

FUNDACIÓN

Digital Euro: a technical explanation and
some policy reflections to enhance digital
payments in the European Union.

Foreword

Foreword

The global payments ecosystem is undergoing a historic shift, driven by the rapid rise of digital technologies, evolving consumer preferences, and growing concerns over sovereignty, data security, and financial stability. Against this backdrop, the European Central Bank's Digital Euro (D€) initiative emerges as one of the most significant monetary innovations in the European Union's recent history. It is a response not only to technological opportunity but also to strategic necessity.

This document offers a comprehensive and thoughtful examination of the Digital Euro from both technical and policy perspectives. It explores the evolving rationale for a retail Central Bank Digital Currency (CBDC), delves into its envisioned architecture, and evaluates the critical challenges and trade-offs it presents.

The analysis begins with the current state of play, tracing the evolution of central bank thinking and the European legislative process. It then outlines the high-level technological blueprint for the D€, offering insight into the architecture, privacy features, and functionality required to support a secure, user-friendly digital payment solution. Key concerns around financial stability, such as the risk of deposit flight and the implications for credit provision, are candidly addressed. Notably, the paper offers measured policy recommendations, including the implementation of holding limits and a gradual, "start-small" deployment strategy.

This work brings clarity to complex regulatory issues while proposing a path forward that respects the EU's legal frameworks, economic diversity, and institutional constraints. Moreover, it acknowledges the role of private innovation—highlighting how existing pan-European initiatives such as Bizum, Wero, and the European Payments Initiative (EPI) may coexist or even complement the D€.

The digital euro is a policy option—one with promise, one that requires careful calibration, broad stakeholder involvement, and institutional readiness. As the European Union confronts mounting geopolitical uncertainties and the need for renewed competitiveness, this paper makes a compelling case for why the D€ merits continued exploration—though not at the expense of prudence or flexibility.

This paper does not endorse a single path. Instead, it recognizes the value of robust dialogue, critical analysis, and evidence-based policymaking—all of which are present in the following pages. We would like to express our deepest gratitude to the authors whose invaluable contributions have made this work possible.

Lola Solana

Presidenta del Instituto Español de Analistas



INSTITUTO
ESPAÑOL
DE ANALISTAS
DESDE 1965
FUNDACIÓN

1

Digital Euro: a technical explanation and
some policy reflections to enhance digi-
tal payments in the European Union.

Introduction: the state of play

1. Introduction: the state of play

The Digital Euro (D€) is a modality of Central Bank Digital Currency (CBDC) for retail users put forward by the European Central Bank (ECB). Many central banks considered the issuance of a retail CBDC. Some of them are still analyzing their implications – for instance, on financial intermediation – and other have put the project on hold. According to the BIS, the number of central banks that considered the introduction of a retail CBDC likely in the next 4-6 years increased from 2018 to 2021 and decreased thereafter.

In the meantime, the ECB has continued progressing with the D€ project. As expected for such a fundamental policy measure, the initiative and different features of its designs have not been free of debate across stakeholders. These include the private and public sector, academics and also key EU institutions, such as the ECB and whole Eurosystem, the European Commission and co-legislators (EU Council and EU Parliament). While the ECB has primarily focused on its technical design, as well as the financial and monetary implications, EU legislators are concentrated in developing the regulatory framework governing the working of the D€.

At its core, the D€ is envisioned as a secure, efficient, and accessible digital complement to physical cash, designed to meet the evolving needs of citizens and businesses in an increasingly digital economy. After an “investigation phase” that ended in October 2023, the ECB’s work entered a research-based “preparation phase”, with consultations involving stakeholders from the financial sector, technology experts, and the public at large.

Its aim has been to develop a system that guarantees usability, safeguards privacy and ensures cybersecurity, all while coexisting with cash and existing payment infrastructures.

Regarding the D€ regulatory framework, the European Commission put forward a legislative proposal in June 2023 that seeks to outline a clear legal framework for the D€. This proposal of Regulation emphasizes the need for uniform standards across member states, legal clarity, and robust regulatory oversight. The Commission's approach attempts to address concerns about financial stability, data protection, and potential systemic risks by proposing a set of rules that would guide the issuance, circulation, and use of a D€. The legislative proposal also highlights the importance of ensuring that the D€ does not undermine the soundness of the financial system and that should continue duly preventing illicit activities, such as money laundering or fraud. This Regulation needs for the ECB to be able to launch the D€.

In parallel to Commission's efforts, debates have been lively in both the EU Council and Parliament. Members of the Council, representing the interests of national governments, have expressed a range of opinions, reflecting divergent views on sovereignty, financial stability, privacy, and the pace of digital transformation. Some national representatives have voiced concerns that a D€, if not properly designed, might disrupt financial intermediation. Others see the D€ as an essential step towards modernizing Europe's payment landscape.

Broadly speaking, the main arguments from supporting authorities to justify the D€ includes: the decrease in the usage of physical euros, vis-à-vis the consequent increase of digital payments; the need to ensure EU strategic autonomy in what regards to digital payments (eg regarding payments infrastructure); and the emergence of new threats such as stablecoins denominated in foreign currency.

In the European Parliament the debates views are also wide ranging. For example, some MEPs (Members of European Parliament) underscores the challenges to ensure consumer protection and data privacy in a digital financial ecosystem. Concerns have also been raised over how the D€ would affect personal financial data, the risks of cyberattacks, and the potential for increased state surveillance if proper safeguards are not imple-

mented. More and more intensely, some voices have questioned to what extent the same goals could be achieved through alternative means, such as EU-wide developments from the private sector.

A key aspect of the project is the public-private collaboration, with the D€ relying on a linkage with a bank account. Many EU countries have made significant progress in instant payments over recent years. To leverage, to the best possible extent, on existing infrastructure will help to cut costs and facilitate operations. Using existing infrastructure would also work as a catalyst for an eventual adoption of the D€, as it would be integrated into platforms that have already been able to consolidate habits among users. The European private sector is already working to progress on interoperability across different solutions for digital payments.

In summary, the D€ project represents an ambitious attempt to modernize the European payments system. The discussions so far reveal a range of advantages, but also concerns and risks. Ultimately, the best approach will mostly depend on its feasibility, efficiency and attractiveness to users. Debate is still ongoing.





INSTITUTO
ESPAÑOL
DE ANALISTAS
DESDE 1965
FUNDACIÓN

Digital Euro: a technical explanation and some policy reflections to enhance digital payments in the European Union.

2

High-level Technological Architecture and key technological challenges

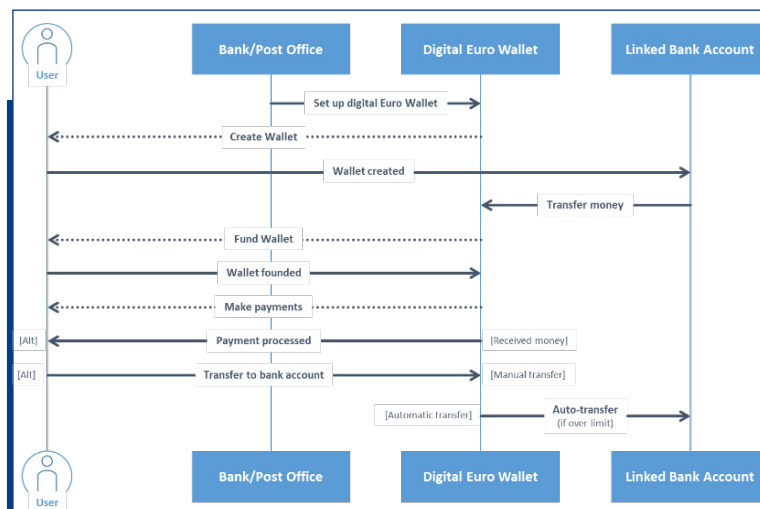
2. High-level Technological Architecture and key technological challenges

2.1. A DESCRIPTION OF THE DIGITAL EURO FROM A TECHNOLOGICAL PERSPECTIVE

The D€ would be an electronic means of payment. Like cash today, the D€ would have legal tender status, and it is thought to be used anywhere in the euro area, aiming to ensure security and privacy.

The ECB is looking into how to implement the D€, starting with creating a D€ wallet that can be set up through a bank or post office. Users can add money to their wallets from linked bank accounts or cash deposits and make payments with the D€. Funds received can stay in the wallet up to a certain limit or be moved to a bank account, manually or automatically. Payments made with the D€ are expected to be safe and instant, whether in physical stores, online, or between people. The D€ would work both on-line and offline, making it usable even when the network is weak or unavailable and it offers cash-like privacy for offline transactions, with personal transaction details visible only to the payer and payee. (fig. 1).

Fig. 1. How the D€ work.



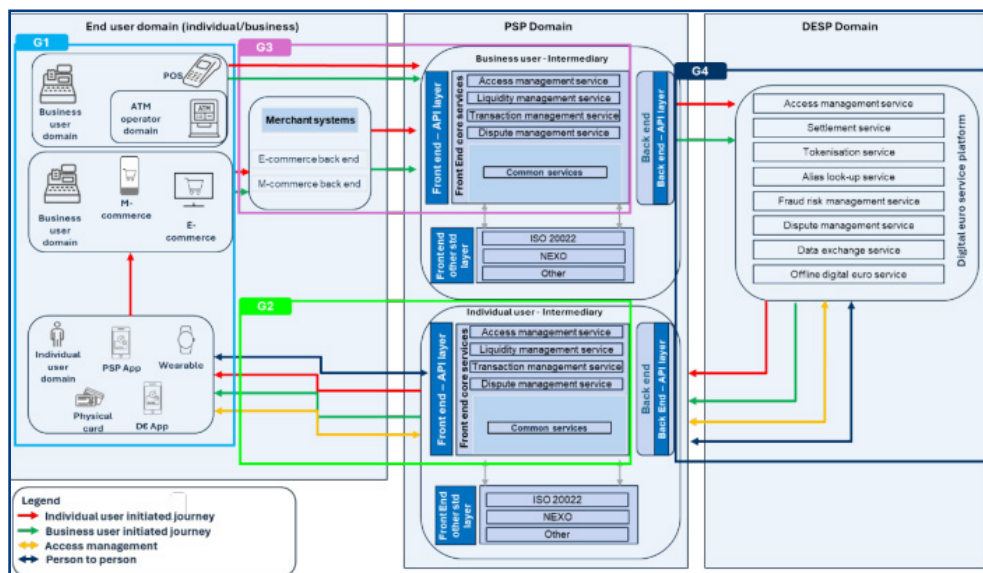
2.2. HIGH-LEVEL FUNCTIONAL ARCHITECTURE¹

2.2.1. Components of the D€ service platform²

The D€ ecosystem is made up of various interconnected components that work together. This seeks to keep the system secure, efficient, and compliant. At the core of it all is the settlement layer, which takes care of real-time verification and maintaining the ledger. This means it's responsible for recording transactions and allowing instant data queries to ensure accuracy and updates. The dedicated cash accounts for intermediaries are handled through the dedicated cash accounts (DCA) management module, which connects with central liquidity systems like TARGET, ensuring smooth liquidity flows.

¹ ECB - Update on the work of the digital euro scheme's Rulebook Development Group 09 April 2025.

² ECB - Annex 1: Functional and non-functional requirements linked to the market research for a potential digital euro implementation 13 January 2023.



Reference data management acts as the central database for identity management, reference data and other configuration parameters. On the other hand, the data warehouse pulls together data and tools from other components to support historical, statistical, and regulatory reports, and archiving of legally relevant data.

To facilitate transactions without continuous connectivity, the offline solution is expected to include specialized components for end-user wallets, intermediary distribution, and Eurosystem issuance, enabling D€ usage even in offline scenarios.

Access to D€ services is streamlined through a unified access gateway, providing a single entry point for all for all the functionalities offered by the Eurosystem. A D€ app might be considered, allowing intermediaries to integrate D€ features into their existing apps using the integrated banking App SDK (Software Development Kit).

The proxy lookup service would allow intermediaries to intermediaries to pair mobile phone numbers or other aliases with the corresponding account/wallet details of end users. When intermediaries on-board end users, a shared on boarding repository is used to control the number of

accounts/wallets per user so that the number of accounts/wallets allowed per user is not exceeded.

The tokenization component is thought to support tokenisation and de-tokenisation of transactional information and/or reference information on request of a Payment Service Provider (PSP). In cases of transactional disputes, a dedicated dispute management system facilitates communication between parties, handling pre-dispute notifications, formal resolutions, and chargebacks.

Finally, a fraud and risk management component could be added to provide transaction risk scoring, helping intermediaries validate payments in real time. While this would enhance security and user experience, its inclusion remains optional. Final design and integration points are still to be determined.

2.3. TECHNOLOGICAL CHALLENGES IN THE DESIGN OF THE D€

One of the main challenges is to ensure that the D€ could serve for every type of transaction. It has to function for in-store purchases, for sending money between individuals and even for online shopping. To make this happen, the D€ payment system follows well-known standards like ISO 20022 for data formatting and merchant category codes (MCC) for classifying transactions. This helps the D€ to run along some of the existing rails in the payment setups. It also builds on existing KYC/AML frameworks and tried-and-true fraud detection methods to meet regulatory and security needs. When it comes to resolving disputes, it sticks to the processes commonly used in the traditional payment systems, which helps reduce hassle for both users and businesses. Needless to say, pulling all these pieces to work well together –especially across different types of transactions, technical systems, and regulatory rules – is no walk in the park.

Ensuring financial and digital inclusion by providing offline functionality, allowing users to make payments without an internet connection, also entails some specific difficulties. This requires strong protocols for validating

usage offline between units, such as mobile phones or payment chips that do not depend on an intermediary. Offline transaction capabilities should be built on top of network support, maintaining the integrity and security of the data while protecting the privacy of the users.

Safeguarding the D€'s security and privacy is of paramount importance. There is technological work ahead, such as developing cybersecurity systems that will withstand the eventual threat posed by quantum computing, and many other areas. This requires advanced encryption techniques and secure communication methods to make sure that the users cannot be tracked down through their transactions.

Equally critical is to preserve user privacy protection. The offline D€ should have cash-like privacy levels - i.e. the details of the offline D€ payments would only be known to the sender and the recipient. Even for online payments, the Eurosystem would not be able to directly link the users to their payments. This requires exploring tech solutions like pseudonymization, hashing, and encryption. AML/FT controls should also be considered at the top of all this. Doing that, would require its own technological developments, further to due consideration of suitable holding limits, possibly also including limits on transactions volumes.

Programmable use cases that may be deployed on top of the D€ by different stakeholders would also require careful analysis and design. These functionalities, such as conditional payments (e.g., recurring payments), would have no geographical, time, or user base constraints within the euro area.

To avoid affecting financial stability, it is essential to have advanced systems in place that can monitor holding limits in real-time. These systems need to adjust dynamically and work well with the current banking infrastructure while managing a large number of transactions.

Some of the technological challenges to introduce, monitor and enforce holding limits to the D€ include: developing monitoring systems to track individual D€ balances and prevent limit breaches; implementing sophisticated algorithms for real-time analysis and dynamic adjustment of these limits; ensuring seamless interoperability with existing banking infrastructure to facilitate smooth conversions between D€s and bank deposits; and

building robust systems capable of processing high transaction volumes without compromising financial stability.

Another hurdle to clear is to minimize the environmental impact of the D€ throughout its entire lifecycle. Data centres are key to that effort. For example, energy-efficient protocols and technologies, like advanced forms of cooling as well as energy-efficient servers, would mean that the power needed for processing and storing D€ transactions may be reduced. Data centres would operate in an environmentally friendly manner only if they are based on energy efficiency and sustainability principles.

Finally, it is essential to make sure that the D€ services are available and easy to use for everyone. A key trade-off lies at the heart of the matter: how to achieve that the D€ is successful/attractive enough, but not too successful/attractive so as to raise problems to aspects such as financial stability and monetary policy, for example. A challenging equilibrium to strike, particularly if this need to be estimated from an ex-ante point of view. This kind of issues suggest the need to progress gradually, following a “start small” approach (we will also touch on this in the following sections).

Part of this process includes creating simple navigational interfaces, allowing seamless integration with existing applications, as well as maintaining a uniform experience across multiple devices. Accessibility testing on user journeys, like using smart cards, ATMs, POS systems, and mobile hardware, devices is important. Every user journey needs to go through iterative user testing to make sure that the D€ services are accessible to everyone, including those with disabilities. This thorough can ensure that accessibility is prioritized during the development process, ultimately creating a smooth and inclusive experience for all users.





INSTITUTO
ESPAÑOL
DE ANALISTAS
DESDE 1965
FUNDACIÓN

Digital Euro: a technical explanation and
some policy reflections to enhance digital
payments in the European Union.

3

The digital euro and financial stability

3. The digital euro and financial stability

The ECB broadly considers the D€ to operate as a digital form of the existing physical € and to complement cash and private payment solutions. The ECB has also made clear that the D€ should be envisioned as a means of payment, and not a store of value. To ensure and enforce this objective is of upmost importance for financial stability. This seeks to preserve the role of the € (both physical and digital) as legal tender money, while not disrupting financial intermediation.

Liquidity and maturity transformation –in short, to turn deposits into loans (credit)– is at the heart of banking activity. The key concern in terms of financial stability is the potential impact of the D€ on banks' deposits, since this would directly affect banks' financial intermediation.

For example, to compensate deposits outflows, banks may need to increase their reliance on central bank funding or substitute deposits by more unstable funding sources (eg: short-term wholesale funding). Both options affect banks' profitability and risk profiles, which would ultimately impair credit availability. Economies of scale and scope among banking services and products could also be impaired. Finally, transactional information from customers would be lost. This information is central to a relationship lending approach with households, SMEs etc. Due to asymmetric

information effects, these borrowers may not find financing alternatives or would be charged a much higher price for the same credit.

Of course, the more severe the effects on deposits, the higher and wider the expected effects on financial intermediation and ultimately financing to the real economy.

A well-defined and enforceable holding limit is the key policy tool for limiting risks to financial stability. Put it simply, given that the aim for the D€ is to resemble cash, holdings of physical € and the transactions amounts made in cash (including through cards) should be the basis for the calibration of the limits. Consequently, EU limits on Point-of-Sale (POS) and ATM withdrawals can work as guiding benchmarks when assessing D€ potential usability.

Further to this, we believe that the methodology to guide decisions on holding limits can benefit from considering the following aspects:

1. The existing heterogeneity in the euro area banking system (eg: by considering data from banks with different business models and sizes). There is also a variety of business models (eg universal banks, specialised banks, local, with cross-border activity, etc) and structural differences among systems (eg: in terms of concentration, capital markets development, etc). Impacts for smaller banks, for instance, can be particularly significant, with the potential to trigger contagion to the rest of the system.
2. The different payment patterns and preferences across euro-area countries regarding cash usability (eg: by considering holding of cash and cash-payments habits). Usability would be better assessed on a transaction-by-transaction basis, without necessarily assuming that all payments will be made in D€. Further, patterns and preferences may vary in normal vs stress times, and once again cross-country differences should be duly considered. Finally, the off-line version of the D€ may also need applying different limits in comparison to the on-line version. That would be necessary to tackle trade-offs between AML/FT and fraud controls vs privacy in the off-line D€.
3. The impacts on financial markets if deposit funding has to be replaced by wholesale funding and/or the effects from a potential increasing re-

liance on ECB funding (eg: to factor in effects on bank funding costs, liquidity risk management and profitability). Ideally, it would also be prudent to assess broader effects, for instance, on market liquidity, funding and ultimately on credit availability.

4. Regulations and markets practices in place. For example, regarding liquidity regulation, incentivising a higher reliance on central bank funding would go counter to the main purpose of the liquidity standards: to provide buffers to get liquidity from markets in case of stress. Banks also have their own liquidity metrics in addition to the regulatory ones (eg: management buffers) which could also be duly considered.
5. Interactions with monetary policy and other public policies. Financial intermediation plays a central role in the transmission mechanism of monetary policy and also interrelates with other public policies (eg: on financial inclusion).

Nonetheless, even with advanced models and a wide range of bottom-up and top-down data, the calibration of the holding limits would not be free of fundamental uncertainties. It is inherently difficult to anticipate how the financial sector may change or what is going to be the economic environment in few years. It is also difficult to anticipate changes in the liquidity environment, or how consumers preferences will evolve, the reactions from merchants, or the strategic behaviour of new players such as BigTechs, among several other elements.

These uncertainties, together with the intrinsic complexity and impact of this project, and the difficulty to reverse any decision on the holding limits once announced to the public, suggest the suitability of following a gradual, “start-small” approach, with careful and moderate first steps, including the calibration of holding limits.





INSTITUTO
ESPAÑOL
DE ANALISTAS
DESDE 1965
FUNDACIÓN

Digital Euro: a technical explanation and some policy reflections to enhance digital payments in the European Union.

4

**Other policies
affected by the
digital euro:
potentially
concerned
“public goods”**

4. Other policies affected by the digital euro: potentially concerned “public goods”

As commented, the launch of the D€ as legal tender issued by the ECB poses challenges on different fronts. However, as it is primarily aimed at the retail public, some additional issues arise, such as privacy protection and compliance with stringent European regulations on personal data protection (GDPR).

Unlike euro-denominated banknotes and coins, characterized by complete anonymity, the launch of the D€ raised the debate about the potential traceability of transactions by the ECB and governments.

On the other hand, there is a strong connection between payments and AML/FT prevention, and all the credit and payments entities are subject to relevant obligations settled by global standards and European regulation. It would not be acceptable for anyone that the new D€ creates additional risks on this area.

As such, the solution proposed intends to allow users the option between an “online” mode, where transactions are traceable though encrypted, and an “offline” mode, with expected higher levels of privacy. To address AML/FT risks it would make sense to have different calibrations of holdings limits, and to explore also limits on transactions volumes. As com-

mented before, the calibration of the holding limits should help to tame risks to financial stability.

Two significant debates also arise: European strategic autonomy and the risk of social exclusion.

The geopolitical context has changed, especially after the arrival of the US new Administration and its first decisions. Against this background, some observers have commented about the potential usage of critical infrastructures, including payment systems, with political reasons.

Ensuring a truly European payment system is legitimate for public authorities. There are different alternatives and approaches. Private solutions may address at least some of the key strategic concerns being identified.

On the other hand, it seems that the new US administration is not planning to develop any kind of digital dollar, leaving any initiative of this kind to the private sector in the form of US-denominated stablecoins. It is a good idea for Europe to also explore the advantages and disadvantages of Euro-denominated stablecoins issued by banks.

The second risk the future D€ should consider is potential social exclusion due to the growth of the digital economy. The existence of euro-denominated banknotes and coins reduces this risk. Public authorities could address the exclusion of those without digital means by issuing pre-funded digital payment instruments. But, once again, it would make sense to explore a broad range of possible policy measures. Public policies combined with private solutions could also help to this aim.





INSTITUTO
ESPAÑOL
DE ANALISTAS
DESDE 1965
FUNDACIÓN

5

Digital Euro: a technical explanation and some policy reflections to enhance digital payments in the European Union.

The digital euro and the debate on competitiveness and growth: what role can the digital euro play?

5. The digital euro and the debate on competitiveness and growth: what role can the digital euro play?

Europe is fully immersed, as we speak, in a profound reflection on how to boost its competitiveness. The Draghi and Letta reports have also made clear-cut the need to ensure finance to the real economy, including financing to European SMEs for instance. The discussion on the D€ cannot be detached from such developments.

Competitiveness is currently the main pillar of the European Commission (EC) strategy. This fundamental and very much welcomed debate aims to reinforce European competitiveness vis-à-vis other jurisdictions and requires due attention.

At the end of January, the EC published its Competitiveness Compass, which clearly states: *“Europe has many economic strengths, but must act now to regain its competitiveness and secure its prosperity”*. This Compass is built on three transformational imperatives: closing the innovation gap, a joint roadmap for decarbonisation and competitiveness and reducing excessive dependencies and increasing security.

Quite surprisingly, the D€ is not mentioned in the Competitiveness Compass. However, being such a relevant topic, it would be worth to provide some reflections.

When considering the motivations of issuing a D€, we can see that the project responds to different reasons: reinforcing European sovereignty, so that Europe can reduce its dependence on non-European payment schemes and providing European citizens with a sovereign payment means that citizens can use across Europe; protecting the euro from the surge of non-Euro based stablecoins; and fostering innovation in the private sector by providing the raw material.

Are those reasons compelling enough to launch a D€ on the basis of the competitiveness of Europe? For sure they are. All of them would justify the need to take action. All those factors support and reinforce European competitiveness. However, is the D€ the best alternative to solve all these issues? And can it be the best solution in the short term to mitigate those potential threats, in a new context of increasing geopolitical tensions?

Hence, a logical question arises: what is the best way to achieve these goals? As we commented at the beginning, general criteria such as feasibility, efficiency and attractiveness to users may work as guiding posts.

It has been nearly five years since the ECB released its first paper on the topic. During this time, the private sector has advanced on enabling cross-border P2P payments leveraging on domestic solutions at no cost. The Spanish Bizum payment is one successful case. Bizum is working together with other similar solutions in other countries to build interoperability among them. This is the project called EuroPA (European Payments Alliance) that joins Bizum in Spain, SIBs in Portugal, Bancomat in Italy, and more recently, Vipps MobilePay and Blik, with the Nordics and Poland. This will enable for example that a Spanish citizen can pay using Bizum to an Italian friend in their Bancomat Pay solution, using just their telephone numbers. And the vision is to expand to other regions through interoperability and leveraging on instant payments. On other hand, the French, Germans and Dutch financial entities have made significant progress on a new instant payment solution called Wero developed by EPI (European Payments Initiative). Interoperability among these solutions will increase the likelihood of a scenario where all these private solutions can provide a European-governed pan-European solution.

These private initiatives will provide a solution to address the identified gaps. On the one hand, it helps strengthening European sovereignty: it

clearly reduces the dependence on non-US providers, increasing optionality for citizens and merchants (Bizum, for example is already providing payments in the point of sale). On other hand, it seems to provide some advantages as well: it leverages on existing solutions which are already being used and demanded by customers. EuroPA is enabling P2P payments among more than 100 million Europeans that are currently using their domestic solutions. The aspiration is that interoperability contribute to make domestic European solutions more competitive vs non-European ones.

But there are other threats too. For example: How to ensure that Europe is ready to give a response to the potential surge of stablecoins that could compromise the euro? One source of comfort lies in reregulation. Europe already has MICA, Markets in Cryptoassets. This European framework, that has become a reference in other jurisdictions, can help to deal with the potential threat from stablecoins by imposing limits to issuance. And of course, the Europeans own efforts to explore banks' issuance of stablecoins denominated in euros, should also do their part.

To foster innovation also ranks at the top of the European priorities. Some observers have noted clear benefits in the so-called "wholesale D€" (ie: improvements to the wholesale settlement of financial transactions in euros). A wholesale D€ would allow for the tokenisation of deposits. To examine this topic is also one of the goals of the Agora project led by the Basel Committee Innovation Hub.

A modernised wholesale settlement infrastructure with the most innovative cutting-edge technology would bring clear-cut benefits: it would enhance liquidity and would reduce credit risk, reduce operational risk, provide more resilient financial market infrastructure and reduce payments costs. In fact, the ECB has recently stated that they are launching a blockchain system to develop a wholesale D€.

Notwithstanding, it is not only about where there are other alternatives to provide a solution to the identified problems. It is also, and not less important, to guarantee that the risks of launching a retail D€ are well contained. As described in the previous section there are several reasons that raise concerns about the potential risks, including the risk of damaging the financial sector competitiveness and ability to provide funding to the

economy. On this, failing to set up adequate holding limits to the D€ could endanger access to credit.

In conclusion, Europe has fair and well-justified reasons to explore how the D€ could help to tackle the challenges that we have in front of us. As it has been stated, we need to be ready if the need arises. However, we would also need to remain open to explore different approaches and solutions to tackle the needs that a D€ aims to solve, while assessing its impact on financial stability and its contribution to boost Europe's competitiveness.

With a focus to boost competitiveness and reinforce sovereignty in the European digital payment arena, efforts are being made to ensure that interoperability of existing digital payments solutions provides an efficient solution. Further to progress on P2P payments, it is also key to design P2M pan-European standards in a public-private partnership, that can complement private initiatives. Finally, we need to continue enhancing the wholesale D€, emphasizing features that enhance the route to capital markets union, financial stability and efficiency in interbank transactions. .





INSTITUTO
ESPAÑOL
DE ANALISTAS
DESDE 1965
FUNDACIÓN

Digital Euro: a technical explanation and
some policy reflections to enhance digi-
tal payments in the European Union.

Papeles publicados y relación de Patronos de la FEF

Foros de debate - documentos de trabajo

FUNDACIÓN INSTITUTO ESPAÑOL DE ANALISTAS

- Nº 1. Informe sobre el mercado hipotecario español. Febrero 2013.
- Nº 2. Las reformas como clave para impulsar la confianza y el crecimiento. Marzo 2013.
- Nº 3. Las finanzas públicas españolas en el inicio del siglo XXI: Los efectos de la crisis financiera de 2007. Julio 2013.
- Nº 4. La economía sumergida en España. Julio 2013.
- Nº 5. Las finanzas públicas españolas y los efectos de la crisis financiera. Homenaje a David Taguas. Septiembre 2014.
- Nº 6. Competitividad, eje de una expansión sostenida. Octubre 2014.
- Nº 7. El futuro de la Gestión de Activos. Noviembre 2014.
- Nº 8. Impacto económico de los cambio normativos en los seguros (LOSSE-ARROSSEAR y Baremo). Diciembre 2015.
- Nº 9. El cambio del modelo de negocio de la banca. Junio 2016.
- Nº 10. Ahorro, Pensiones y Seguros de Vida. Julio 2016.
- Nº 11. Debate sobre la evolución del Mercado del Petróleo y las Materias Primas. Junio 2016.

- Nº 12. El Sector Asegurador como inversor institucional y elemento estabilizador de la economía. Julio 2017.
- Nº 13. ¿Es la economía española financieramente vulnerable? Octubre 2017.
- Nº 14. Cómo asentar y diversificar la financiación de la economía española. Febrero 2018.
- Nº 15. Sector Asegurador: impacto de las tendencias macroeconómicas y demo-gráficas. Mayo 2018.
- Nº 16. Retos financieros pendientes de la economía española. Enero 2019.
- Nº 17. Nuevos retos del sector del automóvil. Julio 2019.
- Nº 18. Principales retos actuales y futuros del sector bancario español. Noviembre 2019.
- Nº 19. La Banca en el Siglo XXI: retos y respuestas. Talleres: 1) Fintech y Regulación Financiera. 2) Big Data e Inteligencia Artificial en el ámbito financiero. 3) Sector Financiero, Digitalización y Derecho de la Competencia. Noviembre 2019.
- Nº 20. Grandes retos de la economía gallega en la era digital. Octubre 2019.
- Nº 21. Inversión y crecimiento sostenible: retos y oportunidades en la gestión profesional del ahorro.
- Nº 22. Análisis de resiliencia del tejido empresarial español ante la crisis del COVID19.
- Nº 23. Instrumentos financieros para convertir patrimonio en rentas durante la jubilación.
- Nº 24. La gestión de la morosidad bancaria en la crisis del coronavirus.
- Nº 25. Panel del Sector Seguros. Un Capital de Resiliencia ante futuras pandemias, posible únicamente desde un modelo de cobertura público-privada.
- Nº 26. VII Panel del Sector Seguros. Necesidad del ahorro previsión tras una década de reformas en el sistema público de pensiones.
- Nº 27. Reformas en el tratamiento fiscal del ahorro destinado a previsión social.
- Nº 28. La hora de la financiación en forma de capital.
- Nº 29. El futuro del análisis bursátil.
- Nº 30. The trend towards financial regulatory fragmentation and how to tackle it. A pragmatic approach.

- Nº 31. La relocalización de la industria.
- Nº 32. Financiación de inversiones en redes de telecomunicaciones. Un análisis económico-financiero de los actores implicados.
- Nº 33. *Buybacks*: Cuándo crean valor las recompras de acciones.
- Nº 34. Bancaseguros. La importancia de un canal en continua evolución.
- Nº 35. El reto del tamaño empresarial en España.
- Nº 36. ¿Están las empresas preparadas para los nuevos requerimientos de información sobre sostenibilidad?
- Nº 37. La vivienda en España.
- Nº 38. La Transformación de la Industria de Defensa. De la Guerra del Golfo al Con-flicto de Ucrania.
- Nº 39. La Unión de Ahorros e Inversiones: una oportunidad para racionalizar y simplificar la regulación de los servicios financieros.
- Nº 40. Mercado de titulizaciones: barreras y potenciales soluciones.
- Nº 41. Digital Euro: a technical explanation and some policy reflections to enhance digital payments in the European Union.

COLABORADORES DE LA FUNDACIÓN DEL INSTITUTO ESPAÑOL DE ANALISTAS

BANCO SANTANDER, S.A.

BANCO SABADELL

LA CAIXA

FIDELITY INTERNATIONAL

BOLSAS Y MERCADOS ESPAÑOLES

INDRA

URÍA MENÉNDEZ

ACS

EY

FUNDACIÓN MUTUA MADRILEÑA

ACCIONA

JB CAPITAL

KPMG

MOEVE

UNICAJA

SOLUNION

IKEA IBÉRICA, S.A.U

DELOITTE

J&A GARRIGUES, S.L.

FUNDACIÓN ICO

CECA

FINALBION

FINREG360

FLUIDRA

GVC GAESCO

GRUPO INSUR

ORGANON



**INSTITUTO ESPAÑOL
DE ANALISTAS** DESDE 1965
FUNDACIÓN