

A digital euro for innovation, competitiveness and European sovereignty

Adan's position

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Summary

The transition to the future European digital economy is based on the issuance and availability of a digital euro. In the face of the lead taken by the United States and Asia, **the digital euro is a crucial issue for Europe's competitiveness and the monetary sovereignty of the euro area.**

Thanks to the opportunities of blockchain and crypto-asset technologies, **the digital euro would indeed offer a wide range of new opportunities in the monetary, banking and financial sector** in terms of transparency, reliability, programmability, resilience, privacy and efficiency.

The European Central Bank (ECB) is currently considering what its digital currency (CBDC) might look like within the European Monetary Union. Adan is concerned about the impact of these choices on the industry and users of crypto-assets.

Thus, if the ECB launches experiments, it is essential that this Euro CBDC includes the following characteristics:

- Citizens' ownership and control.
- Issuance on open blockchain network(s), compatible with the requirements set by the ECB.
- Coexistence with stablecoins, due to their complementarity.
- Support on the crypto-asset sector for its deployment and the construction of the new monetary, banking and financial system.

On the other hand, if the ECB chooses not to issue its euro CBDC, **Europe's sovereignty and economic competitiveness will have to be supported by stablecoins**, whose development must therefore be sustained. To this end :

- Their regulatory framework must be proportionate, appropriate and conducive to innovation and competition.
- A regulatory paradigm shift needs to take place on decentralised stablecoins (and decentralised finance more broadly).
- Interoperability between different stablecoins should be encouraged to facilitate the emergence of a true currency unit.
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Under either scenario, without which the digital euro will be meaningless, **the EU must support the development of the crypto-currency industry as a whole.** The strong competitiveness of the US on private forms of currency and the advance of Asia on their "digitised" currency is widening the gap in global currency competition. The development of private *stablecoins* and the opening up of competition in means of payment with the help of innovative players are an effective way of dealing with these challenges.

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Adan's position

"Monetary diversity is part of the future of money. It goes hand in hand with the renewal of democracy through citizen participation. For the evolution of forms of democratic sovereignty is the force behind the transformation of the characteristics of the public good that is money".
Michel Aglietta and Natacha Valla, *Le Futur de la Monnaie*, ed. Odile Jacob, 2021.

I. Context and opportunities of the digital euro

For several years, technological innovation has led to important changes in the various monetary systems. The use of banknotes (fiat money) has progressively replaced the use of scriptural money, considerably facilitating commercial exchanges. Some countries, such as Sweden, are even tending to become "*cashless societies*".

In order to accompany this transition to a digital economy and to exploit the improvements offered by blockchain technologies, the digitisation of means of payment is a crucial issue for the competitiveness of States in terms of monetary sovereignty and for the monetary policy of Central Banks. This transition is accelerating in an economic context marked by the COVID19 crisis and the resurgence of competition from non-bank players.

The last few years have seen the emergence of a new form of natively "crypto" means of payment whose permanently stable value (often, one unit represents one currency unit) has overcome the pitfalls of the volatility of other crypto-assets: the *stablecoin*. A private initiative, the multiplication of these tokens illustrates the interest, both for companies and individuals, in developing and benefiting from decentralised products and services. As of July 2021, the [market capitalisation of stablecoins is over \\$112 billion](#).

In parallel, there is a gradual roll-out of central bank digital currencies (CBDCs). A recent survey by the Bank for International Settlements (BIS) shows that 86% of central banks have started work on CBDCs, 60% are in the experimentation phase (proof of concept) and 14% have launched developments.

The European Central Bank (ECB) is currently reflecting on the possible characteristics of an CBDC in the European Monetary Union. The central bank is facing structural choices such as:

the distribution infrastructure (will the central bank distribute CBDCs directly to citizens or will the intermediated banking system remain?), the choice of using a register distributed among stakeholders (with what degree of openness), the choice of carrying out the issuance rules in an automated manner using *smart contracts*, the choice of anonymising transactions (of a certain amount?) thanks to *Zero-Knowledge Proof* technologies and, of course, the choice of distribution channel (via a card, an account, a QR code, etc.) as well as its price and remuneration.

Adan is concerned about the impact of these choices on the ecosystem of digital asset service providers (DASPs) and users. These choices imply a public/private partnership linked to the development of innovative services for consumers, in which we would like to take part in order to position Europe and France in a leading position towards the Internet of value. Indeed, the BIS recently stressed the importance of public/private cooperation in CBDC developments, with the Central Bank ensuring the stability of the infrastructure and banks and fintech companies competing to provide services to customers.

Nevertheless, if the ECB were to *ultimately* abandon the issuance of its CBDC, such a position within the global financial and monetary system could be built by promoting, enhancing and assisting the deployment of private *stablecoin* initiatives. The future of European digital finance cannot rely on these innovations, which must *at least* co-exist with CBDCs.

Thus, with this document, Adan and its members wish to propose their vision and concrete ways to benefit from private initiatives coming from the decentralised finance (DeFi) community - including stablecoins - and to ensure that, if the choice is made to launch it, the euro CBDC will be a real success and will foster the growth of new innovations.

II. Digital Euro: what interest, what form, which characteristics

The issuance of a digital payment instrument will allow to benefit from all the new opportunities offered by blockchain networks and crypto-assets.

Indeed, the issuance and availability of a digital euro would offer a wide range of new opportunities in the monetary, banking and financial sector:

- **Transparency and reliability.** *Smart contracts* allow the automatic and reliable execution of transactions when (and only when) all conditions are met. Open networks allow independent parties to access the registry, who can verify the execution of transactions. They can also verify and audit the code of the *smart*

contract, which is essential to ensure the accuracy and robustness of the code. The multiplication of parties involved in verifying the code of the underlying application (smart contracts) considerably strengthens the confidence of all, including the end users. Finally, this transparency is a bulwark against the use of the digital euro, like crypto-assets, for illicit purposes (such as money laundering, terrorist financing and tax evasion).

- **Programmability.** *Smart contracts* allow the development of new services (decentralised finance) and the reinforcement of sound market conditions (control of counterparty risk, compliance with regulations, etc.) by being programmed directly on the blockchain backed by the digital euro, which is itself programmable. This would make it possible to deploy a green or social monetary policy or an economic support policy more quickly and more effectively. According to the BIS, central banks consider that it is possible, within their mandates, to adjust their operational frameworks to take account of climate-related risks and that technology could help us do so. For example, blockchain technologies could simplify and accelerate the distribution of digital currencies directly to the mobile wallets of the European population. In the case of digital currencies, programmed only for the purchase of low-carbon products, it would be possible to test the greening of citizens' consumption behaviour.
- **Resilience.** The resilience of a blockchain network is directly correlated to the number of participants (nodes) in the network. There is a positive relationship between the number and diversity of participants (decentralisation) on a blockchain network and its resilience to cyber threats. In the absence of a single point of failure, incentive systems reward participants for the security and value they bring to the network. With a large number of observers checking performance and code, decentralised blockchain networks have proven to be very resilient and agile to attacks. In addition, they enable the creation of advanced permissions and rulesets needed for large-scale applications such as payments.
- **Privacy.** Blockchain networks offer an interesting combination of features that make them suitable for institutionally and community supported applications. Accounts are pseudonymous, which allows each user to maintain a certain level of confidentiality, while at the same time all transactions are publicly recorded, which allows for reliable auditing (see Transparency). In addition, cryptographic primitives allow, if necessary and even for the most open systems, to support higher levels of confidentiality, and in particular to make certain transactions entirely private.
- **Efficiency.** As these technologies are refined, the use of blockchain networks will allow for faster and cheaper transactions. It should be noted that solutions to the scalability challenge are currently being designed and even tested.

These opportunities must be guaranteed whatever form(s) the digital euro may take: *stablecoins*, issued by private players, or even an CBDC issued by the ECB if the Bank chooses to explore this innovation.

1. CBDC scenario: If the ECB launches experiments for a digital euro, this CBDC must coexist with private *stablecoins*, which would be facilitated by issuance on "public" blockchains and co-construction with the crypto-asset industry

Following the investigation phase that the ECB may launch, the Bank may decide to launch its own digital euro (CBDC euro).

The deployment of such an CBDC will allow Europe to maintain its role as an innovative player within the financial and crypto-asset industry. However, it is important to remain vigilant on the characteristics and attributes of this CBDC so that it meets the challenges of the digital transformation of finance, and catalyses both innovation and competitiveness of the French and European economy.

a) First of all, **the ECB's digital euro should be directly owned and controlled by citizens.** Indeed, the opportunity of a digital euro would be to limit as soon as possible (i.e. when the different types of risks are mastered thanks to the intrinsic characteristics of crypto-assets and blockchain technologies) the use of intermediaries which complexify and opacify the value chain with a certain cost. This is also necessary for the banking inclusion of unbanked European citizens, one of the main objectives of the ECB regarding the issuance of an CBDC. However, this progressive disintermediation will necessarily raise new challenges for commercial banks to adapt.

b) **It is also crucial that CBDC is issued on an open blockchain network(s).** In its [Report on a digital euro](#), when considering the issuance of a digital euro, the ECB does not advocate specific technologies. However, particularly in the context of the regulatory debates underway for the supervision of crypto-assets (MiCA and pilot scheme) and with regard to other central bank initiatives, this technological neutrality is relative. Indeed, according to the European Commission's proposal for a [pilot regime](#), securities "in DLT" could only be issued, registered, transferred and stored on a proprietary network deployed by established market infrastructures. Furthermore, [IMF Working Paper WP/20/104](#) shows that when central banks consider using DLT instead of centralised databases to issue their CBDCs, they only explore "private permissioned networks" which "appear to be more suitable".

The ECB should not rule out the deployment and issuance of its digital euro on blockchain networks, including those with the highest possible degree of openness. Compared to permissioned networks, they offer the following opportunities:

- **Open source.** Public blockchain networks are *open source* projects, developed by a large and expert community that continuously strives to improve the protocols and their functionality, develop innovative use cases and solve problems. Code repositories and version histories are freely accessible and usable on developer platforms such as GitHub. This ensures that the needs of end-users and project developers are continuously and effectively met, which in turn promotes the creation of standards and ensures a constant flow of ideas and innovations.
- **Available technology ecosystem and composability.** Public blockchain networks are now proven technologies. A whole ecosystem of developed and tested technology components (e.g. standards, applications, infrastructure, developer tools) is already readily available and usable. These components can also be combined to create advanced use cases. In contrast, the implementation of closed networks requires (re)deploying the entire infrastructure (nodes, block producers, etc.), recruiting validators and taking on the research and development burden. In this respect, considering the issuance of the digital euro, open blockchain networks would result in considerable time and cost savings and would have a significant competitive advantage over less open technologies.
- **Facilitator of interoperability and synergies, catalyst for innovation.** Crypto-assets, including the digital euro, need to be built using the same technologies to enable full interoperability between current financial and monetary systems and the emerging decentralised economy. However, private sector initiatives operate mainly (and increasingly) on "public" blockchain networks. Thus, the deployment of the digital euro on these open networks will promote interoperability, value creation and mass adoption worldwide.
- **Financial" inclusion.** Depending on their configuration, blockchain networks can be open to participation by all, or limit participants. In the context of euros, which are to be used by billions of people, open networks are much more suitable and capable of improving accessibility to the digital euro for current and potential holders. Digital money would thus facilitate the banking inclusion of the unbanked (possibility to settle digital transactions via a simple *smartphone* without the need to create or use a bank account).
- **Liquidity and fluidity of trade.** In the long-term context of financial markets, substantial liquidity and market depth will be easily achievable on open networks (on

private networks, it will be limited by governance and rivalry considerations). This will simplify international trade by facilitating currency conversion.

Therefore, the use of open blockchain networks could facilitate the deployment of a digital euro. It should be noted that this is fully in line with the requirements set out by the ECB in its *Report on a digital euro*.

c) The issuance of the ECB's digital euro must be complementary to *stablecoins*: the latter must survive the emergence of this CBDC, and not be banned.

In general, CBDCs and private initiative *stablecoins* provide complementary services and do not have the same purpose or timeframe:

- *Stablecoins* provide a way out of the risk associated with the volatility of the crypto-asset market, facilitate arbitrage techniques and provide a level of liquidity that is essential for the functioning of decentralised finance (a set of peer-to-peer, interoperable protocols offering a variety of financial services: *lending*, exchanges, derivatives, aggregators). However, they are not intended to compete with legal tender currencies such as the euro. They facilitate access to *on-chain* exchange platforms and allow crypto-assets to be converted without using a legal tender.
- While the ECB's Digital Euro project has not yet entered its investigation phase and, if adopted, would not be adopted for the next five years, the total capitalisation of private initiative *stablecoins* already amounts to [more than USD 112 billion](#). These tools therefore do not share the same timeframe and will not be deployed in the same way in the future.

d) The crypto-asset industry should be involved, together with the ECB, in the roll-out of the digital euro and the construction of the new monetary and financial system.

As one of the main tasks of a central bank today is to ensure monetary stability, the quality of competition is an imperative, particularly in Europe. In this respect, the deployment of a digital currency implies a close public/private partnership of a new kind in which Adan members wish to take part to ensure its success. In the same way that the [Banque de France's experiments for wholesale payments were conducted with the help of the sector's players](#), the issue of *retail* payments is just as fundamental.

Thus, in the profound transformation that our monetary and financial system in the broadest sense is undergoing, we must rely on digital asset service providers (DASPs) as solid partners. We must therefore encourage the development of these players and their

participation in the transformation of our economy, in order to preserve and strengthen our sovereignty in the face of the advances of the GAFAMs. To this end, the players of the PSAN ecosystem registered by the regulators must be involved in the experiments of the ECB's CBDC so that they can contribute their indispensable and innovative know-how in the field of digital assets. An appropriate regulatory configuration should accompany these players in these new markets. c

These are key issues in the development of the modern European digital economy.

2. No CBDC scenario: If the ECB does not pursue its reflections on the digital euro, Europe's sovereignty and economic competitiveness will have to be supported by *stablecoins*, whose development must therefore be supported

In the event that the ECB does not launch its digital euro, *stablecoins* could perfectly well take on the role of the expected digital euro, as a natively crypto exchange medium needed to develop the above opportunities.

It is worth recalling at this point that the EU is **lagging behind the almost hegemonic market dominance of dollar *stablecoins***. Euro-backed *stablecoins* account for only 0.3% of all *stablecoins* issued, while [dollar *stablecoins* have a market share of 99.5%, which](#) further accentuates the hegemony of this currency in global trade. The under-representation of euro-backed *stablecoins* is due to a European strategy that is not very supportive of the development of these assets, both in political discourse and in current regulatory debates.

This is why, in order to preserve the European Union's monetary sovereignty and to build a new competitive finance based on European players, in order to prevent European innovation from being dependent on dollar *stablecoins* and companies across the Atlantic, and to prevent our future champions from relocating, **the European Union must encourage the emergence of this euro ecosystem led by our players.**

To this end :

- **The regulatory framework applicable to euro *stablecoins* must be proportionate, adapted and favourable to innovation and competition (beneficial)**, both for issuers and *stablecoin* markets. In this respect, [Adan recalls its concerns regarding the MiCA debates underway at the European institutions, particularly on the *stablecoin* aspect](#). Also, the hard and closed positions taken by French and European decision-makers regarding *stablecoins* maintain a certain pessimism.
- **A regulatory paradigm shift needs to take place with regard to decentralised *stablecoins* (and finance)**. The rules of traditional finance, designed for centralised

use, are incompatible and therefore inefficient. However, a suitable framework for centralised innovation is necessary for the confidence and protection of users, the stability of these markets and their proper functioning.

- **Interoperability between the various *stablecoins* must be encouraged to facilitate the emergence of a true monetary unit.** In this respect, their issuance on open networks would be an asset, which is why the regulations under construction must allow for the possibility of using them.

III. Conclusion: The digital euro, *stablecoins* or even CBDCs, is essential to preserve monetary sovereignty and strengthen the competitiveness of the European economic and financial system

Under either scenario, the EU must make this shift quickly and consider our recommendations.

The deployment of this digital euro on public networks seems to favour both innovation and the ECB's requirements, and in the context of possible ECB experiments should not be discarded.

Issuing a digital euro only makes sense if the EU also supports the development of the crypto-asset industry as a whole: the strong competitiveness of the US on private forms of currency and the advance of Asia on their digital currency are widening the gap in the global currency competition.

In a context of incomplete international money, the European monetary area and economy have no choice but to face strategic rivalry through an ambitious renewal of digital money and its payment systems. The development of private currencies and the opening up of competition in means of payment with the help of innovative players are an effective way of meeting these challenges.

Adan is at the disposal of interested persons for any clarification or question concerning this document.

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