Montpellier

24 April 2024

Central bank digital currency (CBDC) and crypto-assets

Speech by First Deputy Governor Denis Beau

Slide 2: Changes in the financial and payments sectors

Ladies and gentlemen, faculty members and doctoral researchers,

I am very pleased to be with you today to talk about the changes taking place in our payment system and the wider financial system, driven by the advancing digitalisation of financial services.

- **Digitalisation** has already profoundly altered practices in the **payments sector**: we are using cash less and less in day-to-day transactions as we turn to electronic solutions, such as cards. The rise of e-commerce and the aftermath of the Covid-19 crisis caused this trend to accelerate still further, spurred particularly by the surging increase in contactless and mobile payments.
- In the **financial sector** more broadly, digitalisation has led to the emergence of crypto-assets and decentralised finance (DeFI), both of which rely on distributed ledger technology (DLT). This in turn has paved the way for the **tokenisation of finance**, which consists in issuing, recording and exchanging financial assets, such as shares and bonds, or real assets, including gold or property, in the form of digital tokens on DLT such as blockchain. Tokenisation has the potential to drive deep changes in the way our financial system works.

  These transformations present opportunities for market participants and the general public, as they could bring greater simplicity, effectiveness and speed while also lowering transaction costs.

But they also raise challenges, especially for an institution such as the Banque de France, whose mandate includes preserving financial stability:

- First, if an appropriate framework is not in place, innovation could potentially reduce <u>security</u> and <u>efficiency</u> and affect our <u>sovereignty</u> over the payment ecosystem and our financial system;

- Second, these trends could challenge the role of central bank money (CeBM) in anchoring the stability of our payment system and financial system.

At the Banque de France, we are taking action in two areas to respond to these challenges: (i) **we are setting rules and supervising their implementation** so that innovation can thrive within a trusted framework, and ii) **we are adapting the provision of CeBM services** to preserve the role of central bank money.

I will now outline the Banque de France's actions in these two areas, which are aimed at supporting the continued tokenisation of finance and digitalisation of payment services.

I. Supporting the tokenisation of finance

Slide 3: The emergence of tokenised finance presents opportunities and risks

Digital technologies could significantly transform the financial system by supporting the emergence of:

- **A wave of new participants** that bridge the gap between IT and finance.
- **A new form of tokenised investment and settlement assets,** commonly called crypto-assets.
- **New decentralised market infrastructures** based on DLT, particularly blockchain.

The combination of these three trends has spawned new activities and services, which first appeared in the payments sector before spreading to the wider financial sphere. They include DeFi, which is presented as an alternative to conventional finance. DeFi consists in providing crypto-asset-based financial services, such as lending, borrowing and investing, and theoretically bypasses traditional financial intermediaries, with the immutability and transparency of its computer code replacing the traditional role played by trust between participants, via public blockchains and IT programs known as smart contracts.

These changes could have a dual impact with mixed effects on the efficiency and stability of our financial system:

- From an efficiency standpoint, they could deliver improved transparency, better cost effectiveness and 24/7 availability. But processes could also become fragmented if blockchains are non-interoperable and unable to interact smoothly with existing central clearing, settlement and payment systems.
- From a stability perspective, notwithstanding its distributed architecture, which could be a source of resilience benefits, the crypto ecosystem has inherited the vulnerabilities of the conventional financial system, notably in terms of credit, liquidity and market risk. This was illustrated by the failure in November 2022 of FTX, one of the largest crypto-asset exchanges. What is more, crypto-assets have specific features that could amplify traditional vulnerabilities.

For example, the crypto ecosystem's exposure to cyber risk could be exacerbated by the introduction of new vulnerabilities, such as bridges between blockchains. Meanwhile, unregulated stablecoin-type crypto-assets present their own particular risks, not least the false and misleading sense of security conveyed by their name. As the collapse of the Terra USD stablecoin showed, these instruments are not as stable as they sound. This instability stems from a lack of transparency about the nature and appropriateness of their reserves and the limits of their stabilisation mechanisms, exposing holders to restrictions and risks in relation to their redemption rights.

At the Banque de France and the ACPR, we are working to mitigate these risks while ensuring that the full benefits of tokenisation are harnessed. We are guided by two convictions:

- Confidence requires a regulatory framework that is suitable, clear, sufficiently demanding and fair;
- Central bank money must remain at the heart of settlements between financial intermediaries, which are the most sensitive from a systemic perspective.

Slide 4: The European regulatory framework created by the MiCA Regulation

France blazed a trail in crypto-assets with the adoption in 2019 of the PACTE Act, which created the classification of digital asset services provider, or DASP. DASPs must be registered with the AMF. This registration, to which the ACPR must give its assent, covers anti-money laundering and terrorist financing obligations along with fit and proper procedures for senior executives. DASPs may also be covered by an optional authorisation that entails additional requirements and AMF supervision.

Europe's lawmakers have drawn heavily on the French framework. In 2023, the European Union adopted its Markets in Crypto-Assets (MiCA) Regulation, a specific regulatory framework covering the issuance of crypto-assets and stablecoins and the provision of related services. MiCA's goal is to address the major risks and provide greater protection to users.

While MiCA represents a vital regulatory step forward, it will need to be built on in the coming years. For example, it only partially tackles the concentration of crypto-asset service activities within crypto-conglomerates. The challenge is to ensure that investors are protected, through rules covering the segregation of customer funds, rules of conduct and management of intermediary risks, for example by requiring activities to be separated. By virtue of its decentralised nature, the DeFi ecosystem likewise raises regulatory challenges that will need to be addressed.

With this in mind, the ACPR has begun identifying potential avenues of regulation. These were set out in a paper that was put out to consultation in April 2023 and whose feedback was published in October 2023. They include: (1) preserving the resilience of public and private DLT infrastructure via security standards; (2) certifying smart contracts, even if this raises operational questions; and (3) regulating DeFi entry points to protect investors against the risks of abuse.

Work is continuing in 2024 with stakeholders on one of the ACPR's key proposals, namely the mandatory certification of smart contracts prior to use.

European regulatory developments are underway in other areas and will also be needed to facilitate innovation while preserving financial stability. They include measures in support of digital entities, access to financial data and artificial intelligence.

Slide 5: Why explore a wholesale CBDC?

Our second conviction is that, in order to have a framework that inspires trust in the development of the tokenisation of finance, CeBM needs to be maintained as the primary settlement asset for financial intermediaries, which are the most sensitive in terms of systemic consequences in the event of problems.

To achieve this goal, central banks need to adapt the form and provision of CeBM to reflect the characteristics of transactions in tokenised assets, that is, tokenised securities such as shares, bonds or fund units, to ensure that CeBM can be issued, recorded and used for settlement on DLT.

This conviction spurred the Banque de France to become the first central bank to launch an ambitious experimental programme on wholesale central bank digital currency (CBDC) for large-value payments in 2020.

Slide 6: Exploratory work by the Eurosystem on a wholesale CBDC

This conviction is shared by the Eurosystem, which launched its own exploratory work in April 2023 to trial three solutions for the settlement of tokenised assets in CeBM. The Banque de France's wholesale CBDC solution, based on our own DLT (DL3S), is one of the solutions that will be tried out in 2024. The Eurosystem recently published the list of participants in the first wave of exploratory work, and we are delighted to test our DLT solution with them.

This work supplements the European pilot regime, which is covered by special regulatory exemptions and which is being used to test the issuance, trading and settlement of tokenised assets under real-life conditions. It came into effect in March 2023 and will help us to assess the existence of use cases and determine whether there is genuine demand for tokenisation. It will also enable us to identify the regulatory adjustments needed for market infrastructures to operate on DLT over the long run, using a broad panel of tokenised settlement assets, including CeBM.

The Banque de France is also taking part in several international initiatives, particularly those being spearheaded by the Bank for International Settlements' Innovation Hub, which is coordinating projects to explore the future of market infrastructures and ensure interoperability with traditional systems and between different types of DLT.

II. Supporting the digitalisation of retail payments with a digital euro

Retail payments are also being affected as our economy goes digital. To provide support so that digitalisation helps to make payments safer and more efficient – as per our statutory responsibilities in relation to payments – we plan once more to act on the regulatory front and adapt our CeBM payment services solutions. On the regulatory side, besides providing input to the recently adopted Instant Payments Regulation and contributing to the ongoing talks on the third Payment Services Directive (PSD3), we also play an important role in fraud prevention as part of our oversight activities, which are guided by the statutory task entrusted to us in the early 2000s of monitoring the security of payment instruments and chairing France's Observatory for the Security of Payment Means (OSMP).

It is, however, the work being done on proposals to deploy a digital euro that has drawn the most attention in this area. I will begin by explaining **why** we are taking part in this project, before explaining **how** and **when** it could potentially come into being.

Slide 7: Maintaining characteristics of cash in the digital space

As economies switch to digital, cash is being used less and less frequently for payment purposes. Cash made up 59% of transactions in the Euro area in 2022, compared with 79% in 2016. The emergence of cashless payment instruments such as cards has obviously brought many benefits, by promoting simpler, faster, more convenient and safer payments. But cash has unique qualities that are not available in the digital space. These characteristics are useful to everyone and actually essential to some groups.

For this reason, we envision the digital euro first and foremost as a "**digital banknote**" that will make it possible to maintain the characteristics of cash in the digital space. The digital euro will be a new form of CeBM that is accessible to the general public that may be used throughout the euro area by virtue of its legal tender status, in all settings, including e-commerce, and with enhanced confidentiality. Its core functionalities will be free for individuals and will promote financial inclusion in the digital era, including for people who do not have smartphones.

Amid the growing media buzz around this initiative, the digital euro project does raise legitimate questions, but it is also the subject of some **unfounded fears**, which I would like to dispel:

- First, our goal is not to create a European "Big Brother." In fact, the digital euro will offer **unrivalled privacy in the digital space**. The central bank will never be able to identify individuals on the basis of their transactions. The offline mechanism available for face-to-face payments below a certain threshold will offer cash-like privacy. And we are continuing to work on the design with the aim of maximising privacy in other use scenarios.

- Second, the digital euro will not be programmable money. The Eurosystem issues currency, not purchase vouchers. The digital euro will **always be convertible 1:1 with other forms of money**, including cash and bank account deposits. The Eurosystem will not restrict the use of the digital euro by, for example, setting a period by which it needs to be used or specifying goods and services that may be purchased.
- Third, the digital euro **will not earn interest**, positive or negative. It will be a means of payment, not an investment asset.
- Fourth, the digital euro **will not replace cash**. We will continue working to preserve freedom of choice by ensuring that cash remains widely available and accepted.
    - The European Commission has published a proposal for a regulation on the legal tender of cash in the euro area.
    - The Banque de France has announced the construction of a new banknote printworks in the Puy-de-Dôme region. The EUR 250 million facility will be Europe's most up-to-date, efficient and environmentally friendly banknote manufacturing centre, with commissioning due to take place in stages in 2026.
    - The Eurosystem is considering designing a new series of banknotes and recently held a public consultation on how the new notes might look.

  In other words, our commitment is crystal-clear: cash will continue to be widely available and accepted throughout the euro area.

Slide 8: Supporting European sovereignty and integration in payments

I now come to the second issue that prompted us to consider issuing a digital euro. Digitalisation of the economy raises two major challenges for payments in Europe:

- First, our day-to-day payments are increasingly reliant on **non-European participants**, such as international card schemes or, more recently, Big Tech companies. These players benefit from significant network effects that are unconducive to competition and that promote the formation of oligopolies.
- European payment solutions remain **fragmented despite harmonisation efforts**: some solutions work in only one country, or in certain settings, such as peer-to-peer. While the widespread introduction of the single euro payments area (SEPA) initiative in 2014 helped to standardise operating rules for credit transfers and direct debits, card payments continue to be highly fragmented. Just a handful of euro area countries have a domestic card payment solution, such as France's CB scheme, and even then, using the card in another euro area country is dependent on foreign participants.

The digital euro is thus intended to support **European sovereignty and integration in payments**. Distribution of the digital euro will be entrusted to private intermediaries, such as commercial banks and fintechs that are licensed for payment services. These intermediaries will therefore retain their central role in relation to users, managing accounts, providing payment instruments, executing transactions and handling customer relations more generally. Like cash, the digital euro will be issued by the central bank and distributed by private participants. The digital euro will also preserve the complementarity between central bank money and commercial bank money.

We want the digital euro to act as a **platform for innovation** for private participants. In addition to supporting sovereignty and integration in the field of payments, it could also encourage competition in the sector and thus help to reduce the fees charged to merchants.

Slide 9: How and when might a digital euro be issued?

To guarantee that the digital euro can be easily adopted by stakeholders, we want to ensure its **smooth integration** with the existing payment ecosystem.

- To do this, as part of our technical work, we are **having close dialogue** with consumer associations, merchant associations, commercial banks and other private intermediaries, both at European level and domestically.
- These discussions are valuable in identifying existing solutions that could be **reused** in their current state as much as possible, including some types of infrastructure, such as payment terminals, but also standards that are already used by industry and that would be compatible with our sovereignty objective.
- We also want to encourage private participants to design attractive and innovative digital euro payment solutions. The proposals put forward by the Eurosystem and Commission seek to define a **viable business model** for all participants in the ecosystem.
- Last but not least, we will make sure that the digital euro does not present any financial stability risks. A **holding limit** will be set to ensure that the digital euro is used as a means of payment, not an investment asset. The Eurosystem has published its initial research on this question and will go deeper in the coming months. The limit will be calibrated in the future, closer to the issuance date of a digital euro, to reflect prevailing economic conditions.

While this initiative is advancing quickly, a long road still lies ahead before people contemplate paying with digital euro. **In October 2023, the Governing Council of the European Central Bank launched a digital euro preparation phase**, which we will use to (i) finalise our design and analyses, (ii) continue testing functionalities, including by presenting them to potential users, and (iii) select providers to help develop the architecture. We will also continue to dialogue with market participants, merchants and consumers as we strive to build a digital euro that matches their expectations.

Let me stress that the **decision to issue a digital euro has not yet been taken**. Such a decision must be taken collectively, following a democratic debate involving the European

Parliament and Member States. That debate began last summer with the presentation of a proposal for a regulation by the Commission and will continue alongside the work being done by the Eurosystem.

Conclusion

As you can see, central banks are firmly resolved to support innovation, not only by helping to establish an appropriate regulatory framework, but also by innovating in their own right. Thank you for your attention. I would be delighted to answer any questions.