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Anchors and catalysts: central banks' dual role in innovation

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Ladies and Gentlemen,

It is a great pleasure to welcome you in the Louvre for this conference organised by the Banque de France. I am honoured by the presence of Commissioner Mairead McGuinness, of my most distinguished peers at central banks, and of prominent representatives of the public and private sectors. I trust this unique blend of skills will offer a comprehensive overview of the topic that will keep us busy: the tokenisation of finance, and the role of central banks in it.

Let me just recall what I describe as the "triangle of disruptions"[i]: new players; new settlement assets based on blockchain; and new decentralised market infrastructures. These disruptions offer the potential for cheaper and faster services. However, they could also lead to fragmentation and to systemic risk. How can we collectively reap the "net benefits" from innovation? That will only be possible if we come out on top of two false contradictions.

The first apparent oxymoron opposes stability and innovation. Financial stability implies that the financial system is capable of withstanding shocks, so as to avoid impacts on the real economy. But it does not mean stagnation or paralysis, and does not ban innovation in any way. On the contrary, financial stability creates trust, which is an imperative for innovation to last. Well-tailored, consistent and evolving regulations are key in this regard.

The second false contradiction opposes public and private players, with the former supposedly conscribed in their conservative regulators' role and the latter in their innovators' role. After decades of developing and maintaining state-of-the-art technologies, central banks may sometimes consider this caricature as unfair. To private players who know us better – and to others: you can rest assured that we are willing to continue our fruitful partnership. We will obviously have to reinvent the terms and conditions of that partnership to some degree, but let me stress that central banks' action will only succeed together with you, not against you. And that we central banks need to be on both sides: regulation, **and** innovation. I will now elaborate on these two key issues.

I. The need for well-tailored, consistent and evolving regulations

A number of players in the crypto world have recently stumbled - so-called “stablecoins”, DeFi protocol, lending platforms, hedge funds -, demonstrating in practice what many regulators and central banks had been claiming for years: that these new tools of payments and finance had unlocked age-old dangers, meaning that the industry requires robust regulation. Salvador’s decision to make bitcoin an official “currency” in September 2021, regrettable as it is, is a noteworthy experience of a forced attempt to label a currency something that is nothing more than a crypto asset. One year later, actual use is far from taking off. The value of bitcoin against the dollar has been divided by three; this certainly stands as an explanation, yet a partial one. People also rightly mistrust bitcoin because it does not fulfil most of the basic characteristics of a currency - nor any of its ethical requirements.[ii] But the so-called “crypto-winter” is no reason for complacency or inaction. Europe has been a pioneer, designing and drafting a new regulatory framework known as MiCA (Markets in Crypto-Assets) that is tailored to new players and assets. I can only hope for its swift formal adoption, ideally by March next year, as well as the adoption of the very welcome agreement on the extension of transparency rules to transfers of crypto assets, which will make money laundering and criminal use more difficult.

Other major jurisdictions are less advanced in a similar process. We should be extremely mindful to avoid adopting diverging or contradictory regulations, or regulating too late. To do so would be to create an uneven playing field, risking arbitrage and cherry picking. An unduly complex legal pattern would run counter to our objective of protecting clients, and preventing money laundering. Crypto players operate globally, and even their place of establishment is sometimes difficult to determine.

We are fortunate to have a common international framework. The G7 as early as 2019, then the FSB and the G20 have made great progress in this direction: by the end of the year, the FSB will publish updated high-level recommendations. This success shows that regulation of crypto players and crypto assets and more broadly of payments is one course of action where a "pragmatic" or "focused" multilateralism can, and must, still deliver. To avoid further payments fragmentation, there are two imperatives: (i) let us keep coordinated. I am sometimes impressed by the growing number of international bodies which play in the "crypto-regulations" orchestra; we need a strong, single conductor, and that should be the FSB (ii) let us implement in all jurisdictions. The current moment calls less for further global reflection or ever refining of taxonomies of financial tokens, and more for decisions and the monitoring of basic, consistent and robust national regulations.

II. Central banks have their own driver's seat in innovation

Digital technologies are profoundly transforming finance: from artificial intelligence, API and mobile apps for the development of open banking and of the "banking-as-a-service", to distributed ledger technology and smart contracts. We are certain to see a significant development of tokenised and decentralised finance. In such a context, our stance at the Banque de France is both to support regulatory reforms and to play an active innovative role. The Banque de France has been using blockchain for several years now. In 2017, we were the very first central bank worldwide to implement a blockchain solution to manage, together with commercial banks, a repository of creditors. Our CBDC experiments, on which I will elaborate in a few minutes, also led us to develop our own permissioned blockchain (called DL3S- *Distributed Ledger for Securities Settlement System*) in collaboration with an IT provider. We have also drawn on artificial intelligence for various uses, such as a new forex trading tool and supervisory tools. The question that now attracts public attention is whether central banks' investigation phases will lead to the development of CBDCs.

Almost all of that attention is focused on *retail CBDCs*. At the same time, we can sometimes hear, and not only from commercial banks, that they are "a solution in search of a problem". [iii] In my view, this phrase simply misses the point. What we are currently doing is keeping our eyes and minds open on this new way of making "public money" available. In Europe, we are halfway through our investigation phase: the Eurosystem will make its decision by the end of 2023, before a potential launch in 2026 or 2027. I am sure President Christine Lagarde will be able to shed some light on the project.

Beyond purely technical considerations, a retail CBDC could play an anchor role in the digital world, similar to the role played by banknotes in the physical world,[iv] and hence preserve the **accessibility and usability** of central bank money. Regarding the euro area, a digital euro would also contribute to supporting monetary sovereignty and **strategic autonomy**, by preventing the use of external digital assets – such as private crypto assets and non-euro CBDCs – as settlement assets, and by facilitating the emergence of a pan-European payment solution at the point of sale, which could serve as a vehicle for the use of a digital euro. But such a digital euro could and should be decentralised in its implementation, in the spirit of public / private partnerships mentioned earlier.

On the other side of a mountain, you will obviously always find a side that is less exposed to the sun; here, this northern face is *wholesale CBDC*. It currently attracts little public interest, although it poses relatively less complex legal issues, and has two strong business cases. First, a wholesale CBDC could significantly contribute to improving cross-border and cross-currency payments, a topic on which we have made progress over the past year. Following a first report delivered to the G20 in July 2021, the Future of Payments Working Group of the BIS has recently finalised a new report outlining options for access and interoperability of CBDCs for cross-border payments. Second, a wholesale CBDC could accompany the tokenisation of securities as a safe and liquid settlement asset for them on a blockchain technology. Failing to offer market participants a wholesale CBDC could open the door to an extensive use of so-called stablecoins, which would pose a systemic risk.

Over the past two years, the Banque de France has therefore been looking into a wholesale CBDC with a view to contribute to Eurosystem's efforts in designing and developing it when the time comes. And this time could come sooner than expected, with the upcoming entry into application of the European Pilot Regime in early 2023 - only six months from now. This new regulation provides a framework for market players to experiment the use of blockchain in real-life conditions to issue and trade tokenised securities. It also offers a unique opportunity for the Eurosystem to conduct its own “pilot regime”, in close cooperation with private players. Without overpromising on that pilot wholesale CBDC, we have to seize the opportunity to try out various solutions from 2023 onwards. Learning by doing is the best way to acquire knowledge.

In that spirit, since 2020, the Banque de France has been conducting experiments with a wide range of partners to develop its expertise, with the aim of providing that expertise to the Eurosystem. Our first nine experiments have already delivered key insights, shared in a report published in November last year. Considering these promising results, we have decided to launch a new series of three experiments. You will learn more on them in the coming weeks, but let me already give a few insights today.

Two of them focus on improving cross-border payments by working on interoperability between CBDCs with innovative solutions, such as a liquidity management tool based on decentralised finance technology (AMM, automated market maker), which we upgraded in the first half of 2022. The third experiment aims at deepening previous ones on the use of central bank money as a safe settlement asset for tokenised securities, together with other European partners. It involves issuing and distributing tokenised bonds on a blockchain.

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Let me conclude by recalling that in the 1980s it was decided to design and build a large glass pyramid in its courtyard of the Louvre. This disruptive architecture by I.M. Peï was first met with outrage, as critics considered it incompatible with classical style. It was nonetheless built, and has since then become a cherished symbol of the Louvre. I hope that we central bankers will find our way to make tokenisation fit in the existing architecture, while regulating it to the extent necessary. Thank you for your attention. And I would now like to hand the floor over to Ms Mairead McGuinness.

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[i] Villeroy de Galhau, F., *Central banks and finance in the face of a triple revolution*, speech, 25 November 2021
[ii] Villeroy de Galhau, F., *Ethics of currency: a possible guide for central bankers?*, Michel Camdessus Central Banking Lecture, 14 September 2022
[iii] See for instance Waller, C.J., *CBDC - A Solution in Search of a Problem?* and House of Lords, *Central bank digital currencies: a solution in search of a problem?*
[iv] Lagarde, C. and Panetta, F. (2022), Key objectives of the digital euro