Innovation, risk, and trust: building a safe path to tokenised finance in Europe

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Tokenisation – issuing or representing financial assets as digital tokens – is reshaping the financial ecosystem globally. For Europe, it is crucial to embrace this technological revolution to bolster its strategic autonomy and competitiveness. Europe enters this transition with key advantages: a trusted monetary system anchored by a credible and independent central bank and a strong banking sector, a robust regulatory framework, and a financial safety net built to withstand cross-border stress. Solidifying Europe's path forward hinges on reinforcing these pillars and adapting them to future innovation imperatives.

Tokenisation holds promise for financial services of the future…

Tokenisation relies on a digital ledger system to record ownership or claims on underlying financial assets across all authorised participants in a secure and immutable way. Its recent growth has leveraged the widespread adoption of distributed ledger technology (DLT), although alternative technical solutions exist. With the elimination of layers of reconciliation and the introduction of smart contracts, tokenisation enables near-instant transfers, supports programmable settlement, and makes traditional financial assets divisible. This removes transaction costs and broadens access to financial services. While the potential advantages abound, the technology, infrastructure, risks, and use cases are ever evolving. The policy frame must keep up.

Tokenisation produces a myriad of asset types, each with its own settlement venue, trust anchor, risk profile, and specific use cases. Policy and regulatory priorities, existing market infrastructures, and market competition jointly shape their paths of development.

- Stableco[1] for instance, sit mostly on public blockchains and [illegible] most relevant as an on-ch[illegible]unit of account and for real-time cross-border [illegible]nsfers. But the currency substi[illegible]on risk could destabilise economies with [illegible]eaker institutional foundations.

- Tokenised deposits, by [illegible]ntrast, run on bank-spe[illegible]c rails and lean on the existing banking network. This build[illegible]rust but currently [illegible]ers only limited interoperability.

- Central bank digital currencies a[illegible]hor tru[illegible]n central bank money, thus playing a unique role in the tokenised ecosyst[illegible]Strong institutional guarantees – notably central bank independence and th[illegible]et[illegible]ment function of central bank money – underpin price stability and ens[illegible] that di[illegible]ent forms of money remain interchangeable and at par w[illegible]in a jurisdictio[illegible]

- Tokenisation of other fi[illegible]ncial assets, such as gov[illegible]ment and corporate bonds, precious metals, etc[illegible]mproves transparency and divisi[illegible]ity of financial products, broadening finan[illegible]al access, risk-sharing, and inclusion. [illegible] European Central Bank's recent [illegible]ceptance of DLT-based collateral, alongside [illegible]eeper capital-market integration [illegible] Europe, could further accelerate the development [illegible]tokenised bonds.

While toke[illegible]ed assets come in many forms, Europe's bank-centric financi[illegible]ystem remains [illegible] decisive factor in driving their adoption and market evolution. Long-s[illegible]nding clien[illegible]elationships within the banking system carry trust into tokenised finance. B[illegible]ks a[illegible] remain natural front-line players in the design and governance of tokenised instruments. In Europe, a bank consortium is preparing euro stablecoin issuance. Banks are also accelerating the adoption of tokenised deposits and strengthening the [illegible] procedures could translate naturally into the tokenised world, facilitating the set-up of proper safeguards against illicit crypto uses.

… but requires preparation for emerging risks

Tokenised finance introduces new dimensions of risk and contagion that the pre-existing traditional framework was not built to monitor. Three new pockets of risks stand out.

New risk points emerge along the chain.

Decentralised consensus introduces its own coordination risk because validators may fail to align and congestion pushes users to cheaper chains, deepening fragmentation (Shin, 2026). Cross-chain bridges, the workaround for fragmented blockchains, are vulnerable to hacks, with mounting financial losses.

Tokenised instruments, especially those on public blockchains, are borderless by design.

This makes the traditional jurisdiction-based approach to supervision obsolete (Adrian, 2026). An example, in the context of stablecoins, is the feasibility of the so-called 'multi-issuance scheme', in particular how to rebalance a stablecoin issuer's reserves across jurisdictions in distress when the same coin is held by users across multiple legal regimes. International coordination on this question is still pending.

Tokenisation brings a new temporal dimension

An expansion of financial markets that run 24/7 across borders with programmable redemption can make runs faster and more synchronised than in the past, as witnessed in the 2023 Silicon Valley Bank episode. A crisis can unfold far more quickly than crisis-management timelines were designed to handle. Real-time transactions also stretch operational capacity for processing and settlement and for compliance controls, such as anti-money laundering, applied at onboarding and redemption

Each dimension has a counterpart in Europe's safety net toolkit. The question is whether the existing toolkit keeps pace.

Europe has key strengths to deliver on both innovation and financial safety

Europe enters this transition with an existing foundation to build upon and preparatory steps already taking shape on three tracks: regulatory, infrastructural, and the crisis architecture itself.

Track 1 – regulation

Europe has already built a comprehensive foundation through key components, such as the introduction of harmonised European Union (EU) market rules for crypto assets (the Markets in Crypto Assets Regulation or MiCAR) and a regulatory sandbox framework for DLT-based market infrastructures (the DLT Pilot Regime).[2] The next phase, calibration, ensures regulations work for scalable innovation while preserving financial stability, market integrity, and consumer protection. The MiCAR review scheduled for 2027 and the proposed Market Integration Package are opportunities to clarify existing gaps and facilitate broader adoption of DLT. Additional measures could include introducing a common definition of tokenised deposits in EU banking legislation and assessing whether divergences in national legal frameworks applicable to DLT may be further harmonised, laying the foundation for greater standardisation and interoperability.

Track 2 – infrastructure

The European monetary system is built upon an independent central bank backed by well-regulated banks. The Eurosystem's comprehensive payment strategy sets out the pillars of future payment rails and places central bank digital currency at the core, complemented by private settlement assets. Further integration of TARGET Instant Payment Settlement inside Europe and with other major jurisdictions, and in connection with market DLT platforms, will also enhance the payment infrastructure, necessary for further development of digital finance market. A few initiatives within the Eurosystem, such as Project Ponte, have been taking shape on that front.

Track 3 – crisis management architecture

Crisis prevention and resolution are at the core of the ESM's mandate. A tokenised financial system needs a tokenised financial safety net, especially one that is tailored to the varying transaction speeds. Three lines of work suggest themselves and could feed a research and policy agenda for crisis preparedness across institutions with a crisis prevention and resolution mandate: first, liquidity arrangements linked to smart-contract triggers, giving participants predictable access at higher frequency and shorter horizons across ledgers; second, the operational design of crisis disbursements in central bank digital currency, including conditionality and communication mechanisms embedded in code rather than, or alongside, loan covenants and traditional decision making; and third, deeper global coordination for contagion that crosses borders and ledgers, a dimension the existing global financial safety net was not designed for.

Tokenised finance is expanding rapidly, and foreign firms – already dominant in traditional payment rails – are now leading the infrastructure and applications for tokenisation from stablecoins to tokenised deposits. This narrows the window for Europe to shape its own path, preserve strategic autonomy, and ensure that its financial safety net evolves in step with this transition. The next stress event in a tokenised Europe will not wait for drawn out adjustments to the safety net. The time to update the crisis toolkit for the tokenised era is now, with all the new risk dimensions and evolving technology in mind. Tokenisation will be safe in Europe because Europe designs it to be, not by accident.

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Footnotes

[1] A recently published ESM discussion paper analyses the economic functions of stablecoins, their risks, regulatory approaches and how stablecoins compare with other payment and financial instruments.

[2] Respectively, Regulation (EU) 2023/1114 on Markets in Crypto-Assets (MiCAR) and Regulation (EU) 2022/858 on a pilot regime for market infrastructures based on distributed ledger technology (