EUROPEAN CENTRAL BANK

EUROSYSTEM

Central banks on-chain

Isabel Schnabel
Member of the Executive Board of the ECB



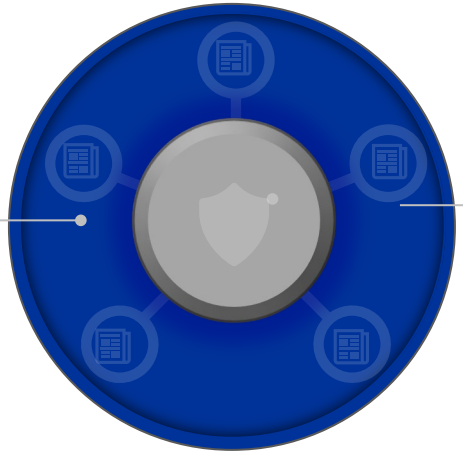
The Future of Money
Conference in celebration of Charles Goodhart
Bank of England, London, 1 October 2026

Tokenisation allows for faster, safer and smarter settlement

Tokenisation

Atomicity

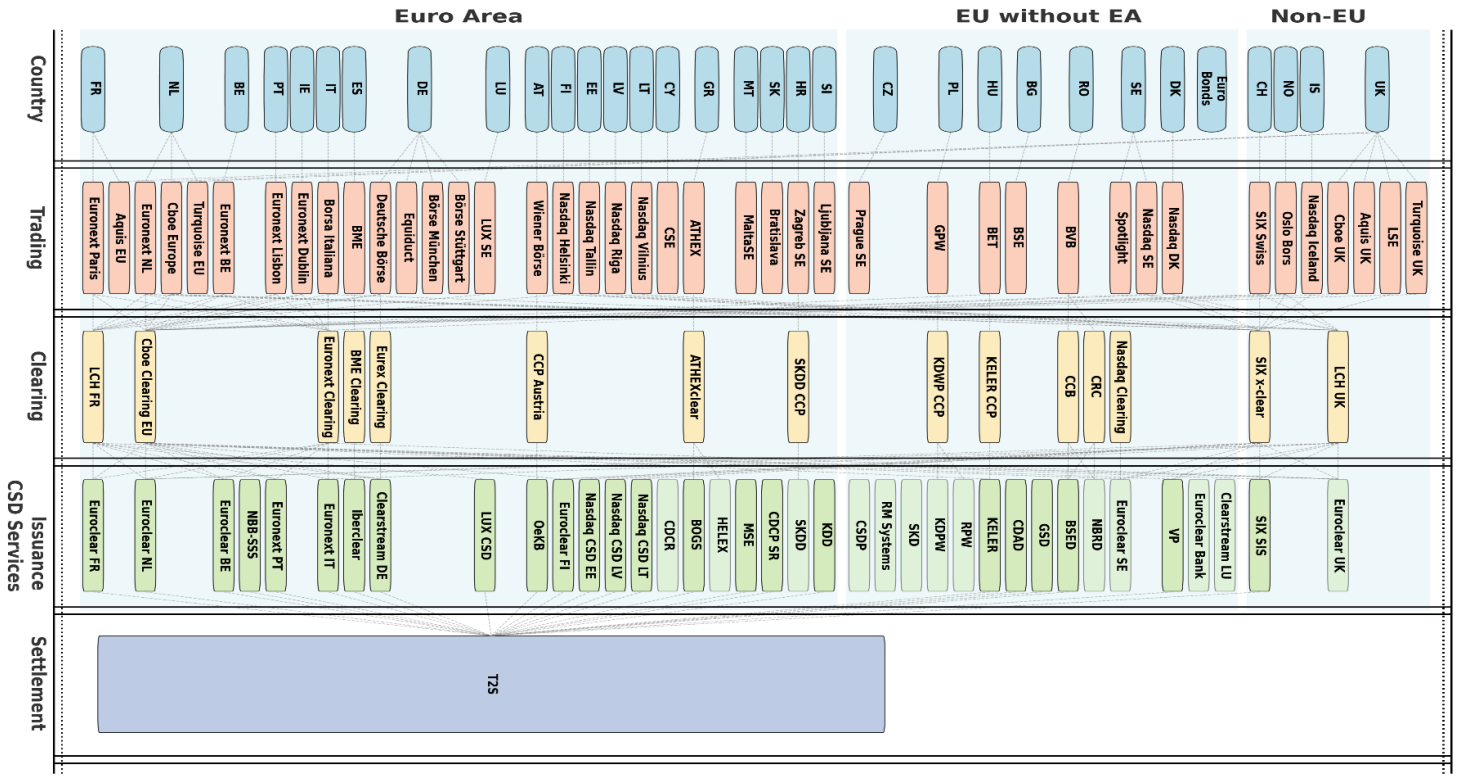
Legs of a transaction
settle together
or not at all



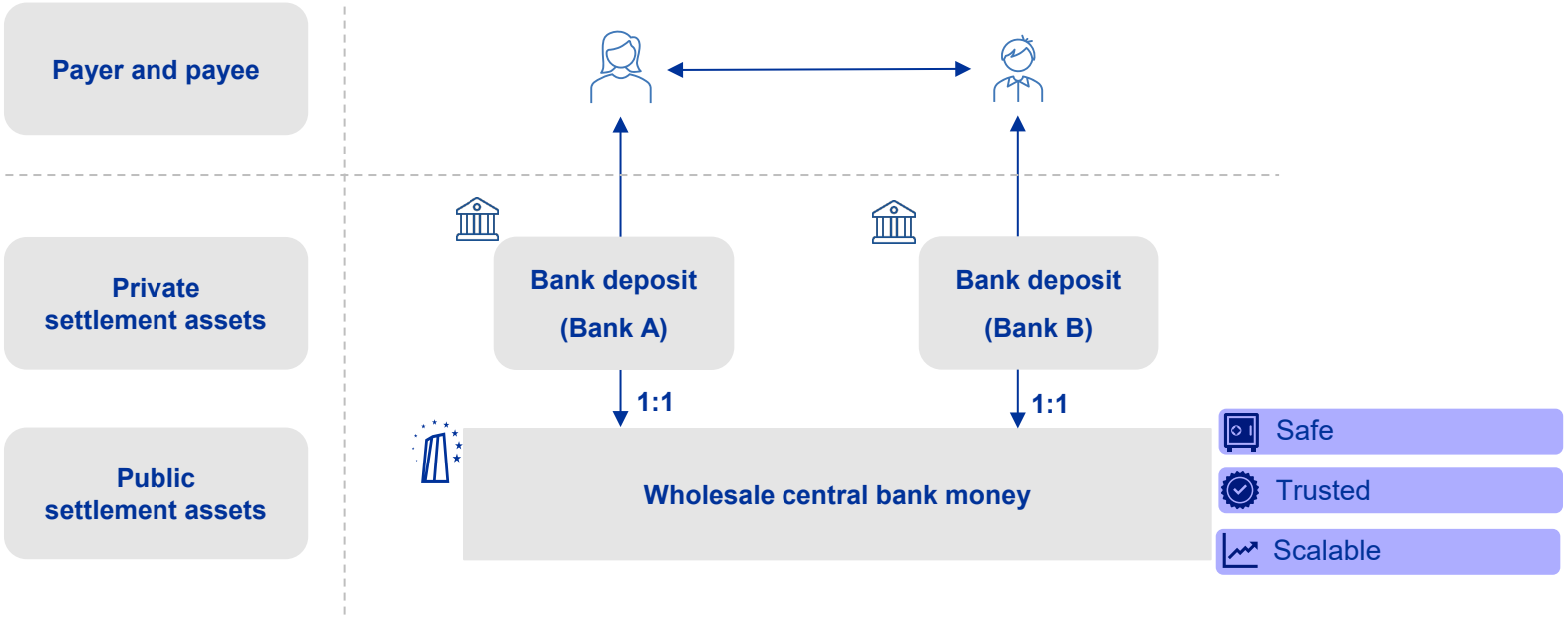
Programmability

Settlement can be made conditional
on set of rules
executed automatically

Overview of the European Securities Infrastructure



Modern fiat monetary systems are built on a two-tier structure

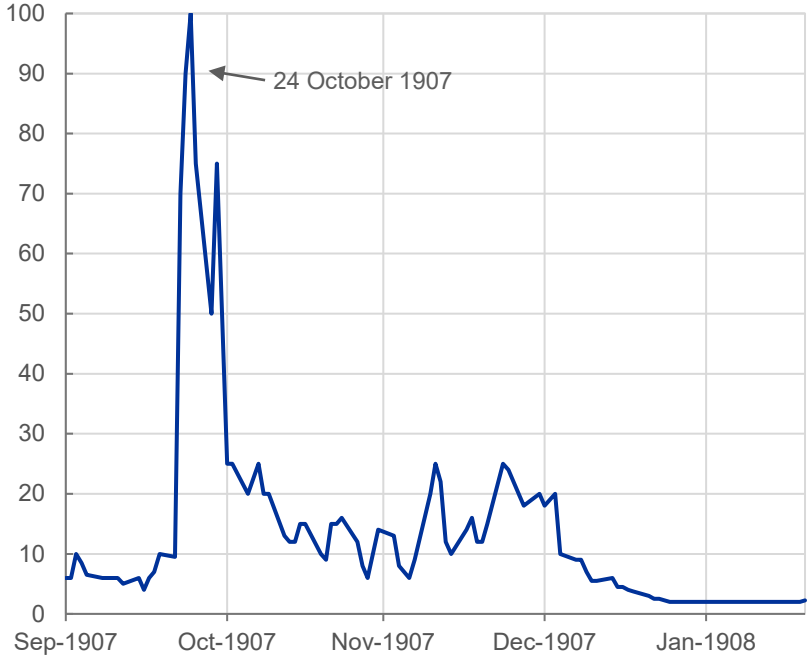


Modern central banks can expand liquidity elastically to counter financial stress

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Panic of 1907: call money interest rate

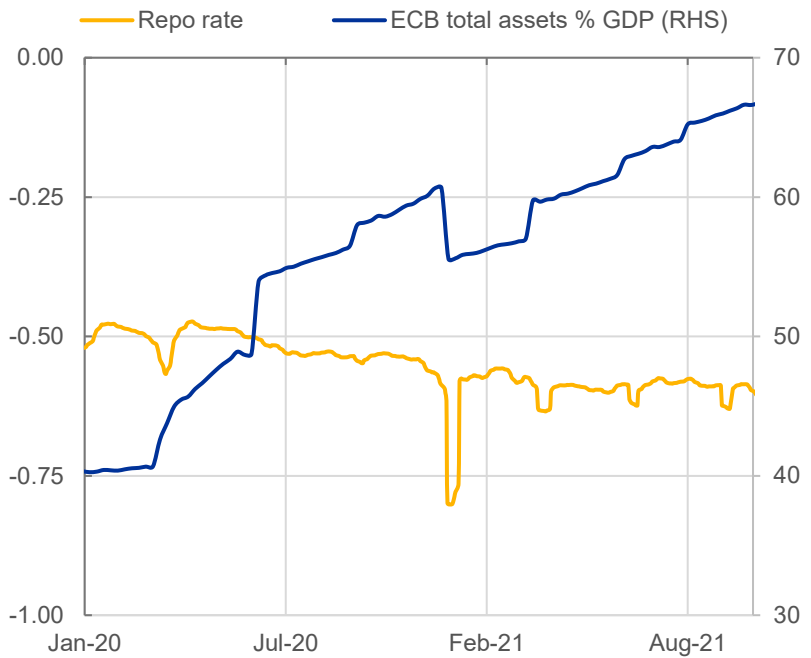
(% per annum)



Sources: Federal Reserve, New York Times, Commercial and Financial Chronicle (various issues).
Notes: The call money interest rate is the rate of interest on stock collateral offered at the New York Stock Exchange.

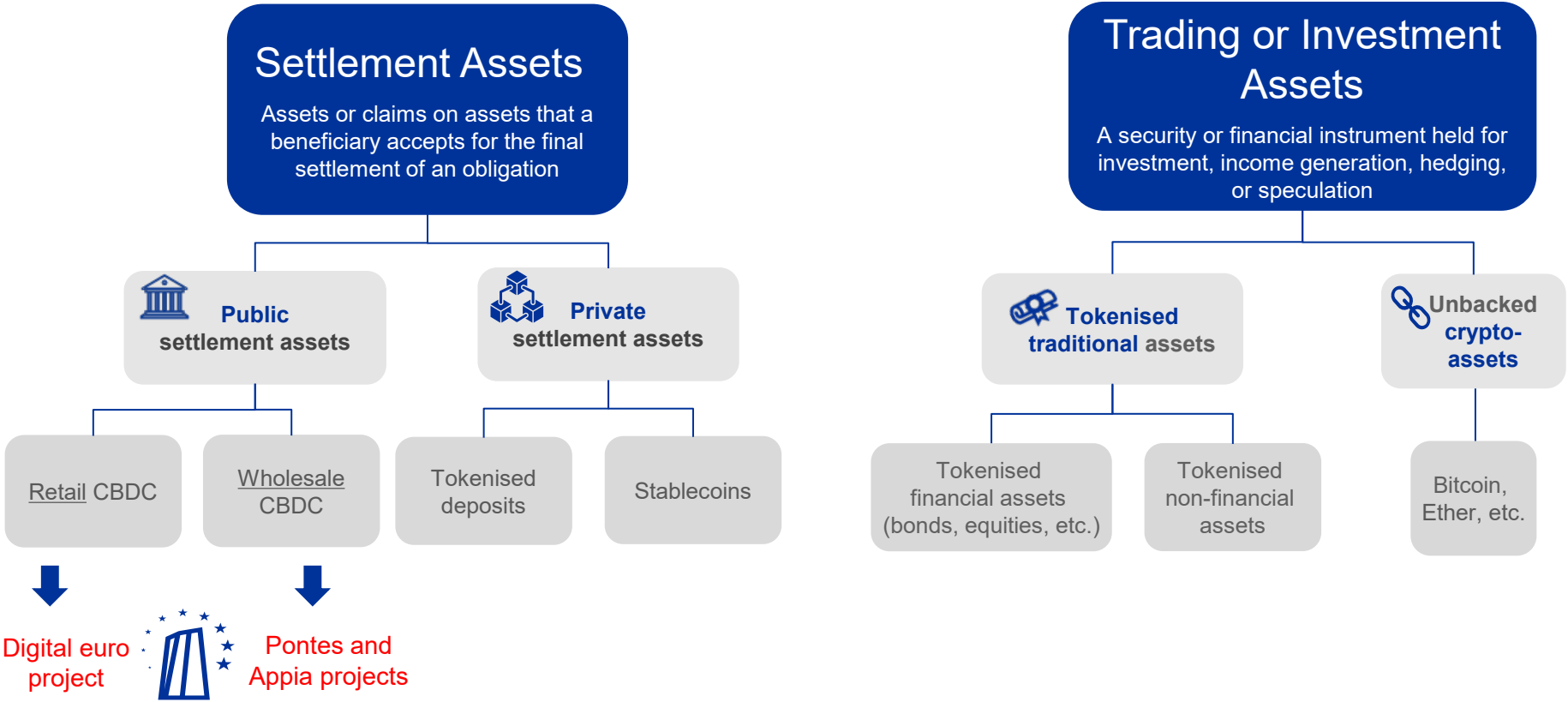
COVID-19 pandemic: repo rate and ECB total assets

(LHS: % per annum; RHS: % of GDP)



Sources: Bloomberg, ECB data portal, ECB calculations.
Notes: ECB total assets are calculated as a percentage of euro area GDP and the repo rate is shown as a 7-day moving average.

ECB aims to preserve anchor role of central bank money in a digitalised world



Central banks could modernise monetary policy implementation by going on-chain

ECB-RESTRICTED

1. Direct issuance

Central bank

Programmable platform
with tokenised reserves

Reserves are natively tokenised

2. Bridging / synchronisation

trigger

Central bank RTGS ⟷ **Programmable platform**

hash-link

Reserves remain **non-tokenised**

Interoperability layer connects RTGS to DLT platform

3. Private intermediary

Central bank

Private intermediary
tokenises reserves

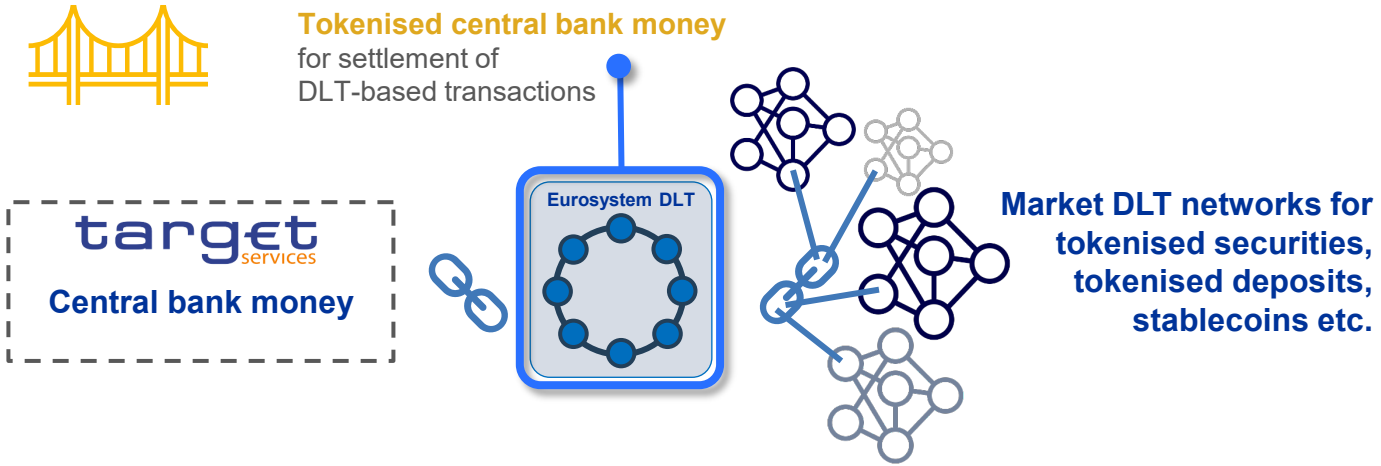
Settlement tokens fully backed by central bank reserves

Reserves remain off-chain, token is private claim

Pontes combines bridge solution with Eurosystem DLT to offer tokenised CB money

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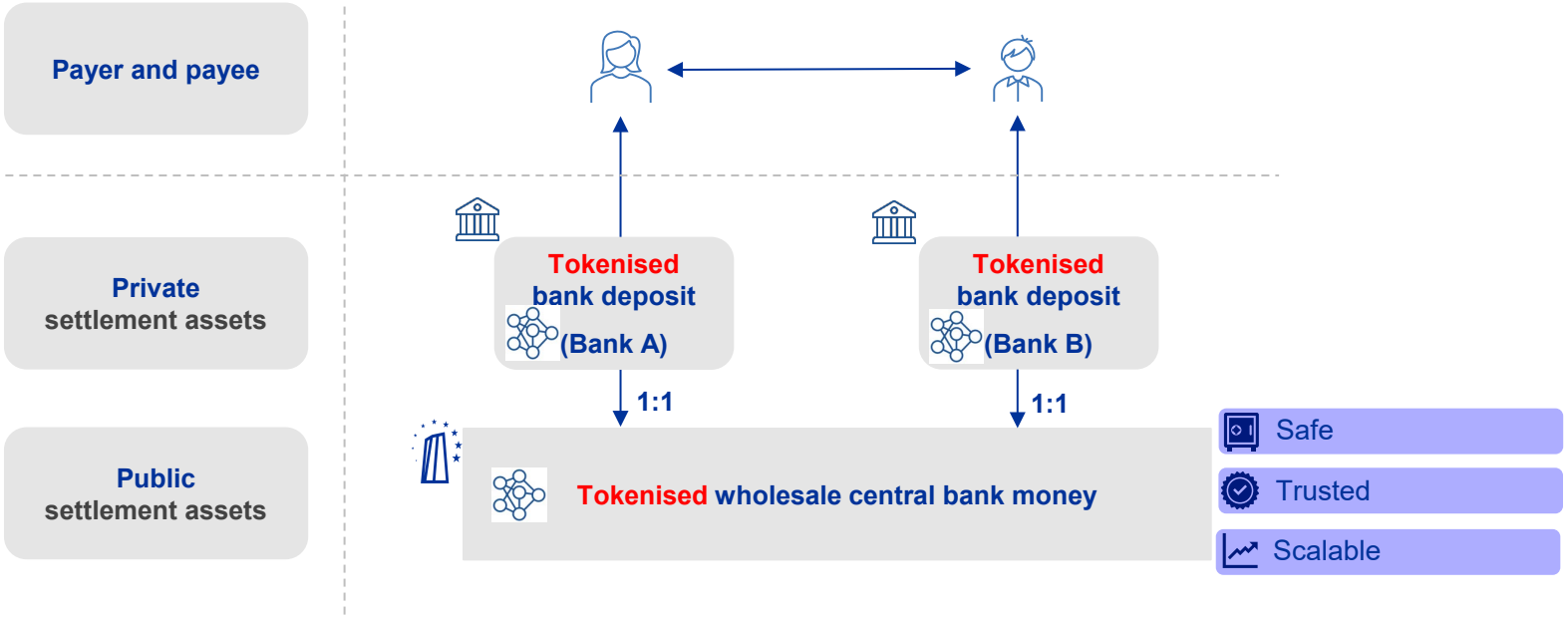
Launched on 21 September 2026, offering dual settlement model via TARGET2 or DLT



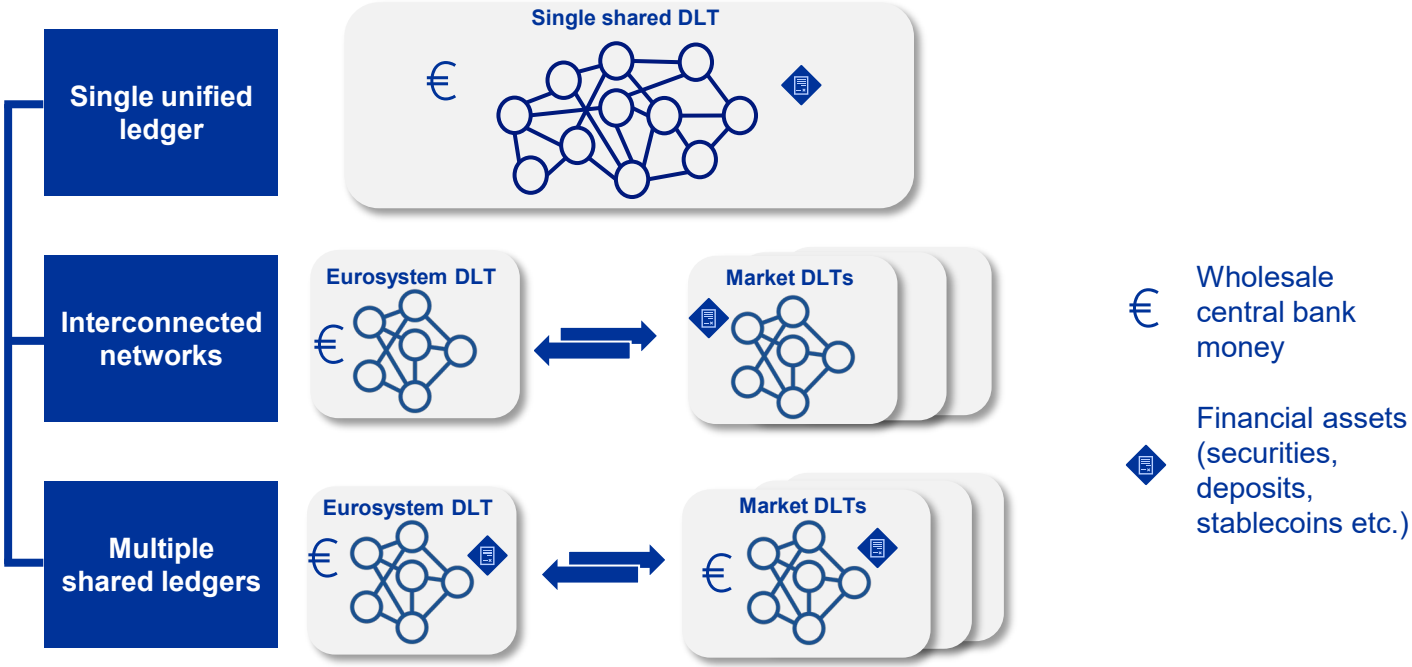
Planned enhancements: 24/7 availability and decentralised programmability

Tokenised system can replicate two-tier structure if CB money is provided on-chain

EUR RESTRICTED



Eurosystem's project Appia explores a range of tokenised architectures



Thank you very much for your attention!

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