

Communications

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## Swiss National Bank, Banque de France, Monetary Authority of Singapore and BIS Innovation Hub to explore cross-border trading and settlement of wholesale CBDCs using DeFi protocols

Project Mariana explores automated market makers (AMM) for the cross-border exchange of hypothetical central bank digital currencies (CBDCs) in Swiss francs, euros and Singapore dollars between financial institutions to settle foreign exchange trades in financial markets.

Mariana uses decentralised finance (DeFi) protocols to automate foreign exchange markets and settlement, potentially improving cross-border payments (and supporting a priority of the G20). Today, DeFi built on public blockchains uses smart contract protocols to automate markets for crypto and digital assets. AMM protocols combine pooled liquidity with innovative algorithms to determine the prices between two or more tokenised assets.

In the future, similar AMM protocols could form the basis for a new generation of financial infrastructures facilitating the cross-border exchange of CBDCs. Mariana involves the Switzerland, Eurosystem and Singapore BIS Innovation Hub Centres together with the Banque de France, the Monetary Authority of Singapore and the Swiss National Bank. The aim is to deliver a proof of concept by mid-2023.

“The cross-border exchange of foreign currencies involving wholesale CBDCs requires a blockchain-compatible FX market infrastructure. Building on such an infrastructure, Project Mariana examines whether automated market makers could price wholesale CBDC exchanges efficiently. We are excited to test this with our partners,” says Andréa M. Maechler, Member of the Governing Board of the Swiss National Bank.