

Implications of Bank of Italy and ECB research on CBDCs in EMDC

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CBDC in EMDEs: Opportunities and Challenges

17 March 2022

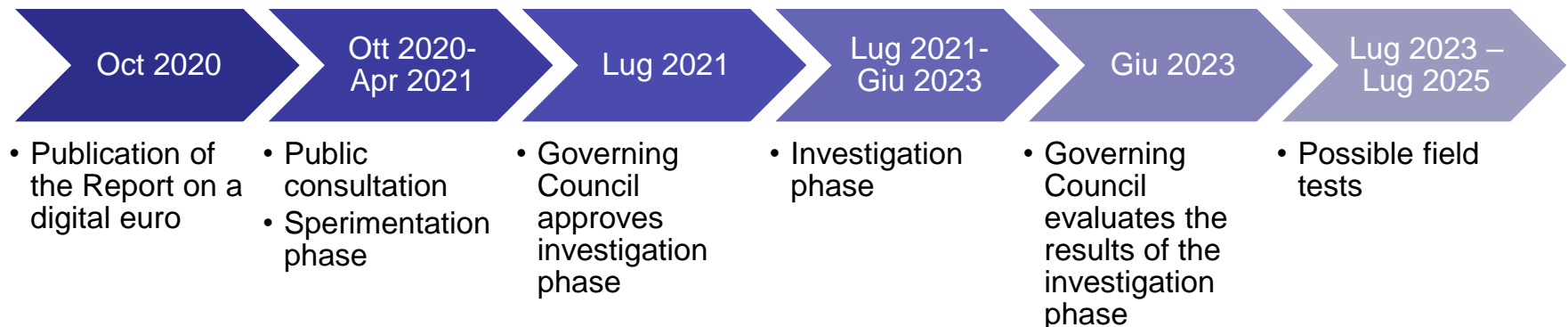
Outline

1. The digital euro project
2. Potential international implications of a digital euro
3. Conclusions

The digital euro project

- As other central banks, the ECB is considering the possibility of issuing a CBDC, i.e. a digital euro (D€)
- If issued, D€ will be a liability of the Eurosystem available to the public
- The Eurosystem wants to be ready to introduce a D€, if needed.

Timeline of the project



Potential international implications of a digital euro

The international impact of a D€ will depend on **several design choices** of the D€ that have not been set yet, e.g.:

- what level of **remuneration?**
- **which intermediaries will distribute the D€ to the public?** only euro area (EA) banks, subsidiaries of foreign banks, payment service providers etc.
- **who can hold D€?** EA households, SMEs, non-EA residents etc.
- ...

Potential international implications of a digital euro

In the payment market, a digital euro well integrated with the cross-border payment system would **reduce remittance costs** for foreign living in the EA.

More generally, a key design choice for the potential international implications of a digital euro is **whether/how much D€ non-EA residents will be able to hold.**

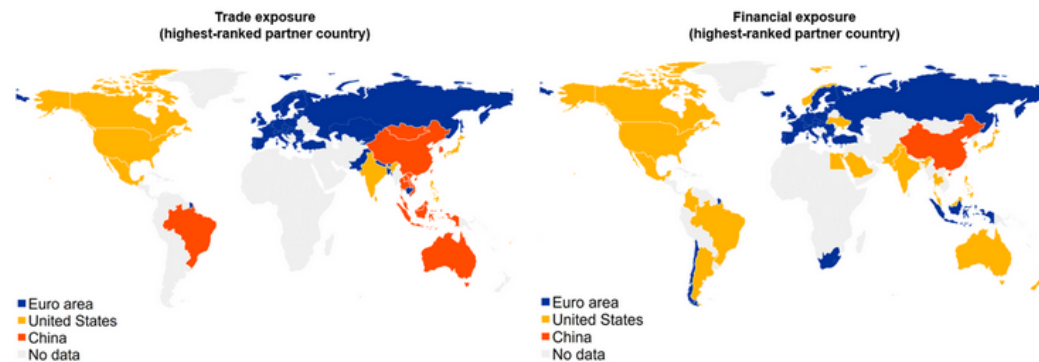
Potential international implications of a digital euro

Two main implications of allowing non-residents to use D€:

First, a D€ would increase the demand for euro, leading to an **appreciation of the exchange rate**.

To the extreme, it brings the risk of **digital currency substitution** – or digital “eurization”, particularly EMDEs with unstable currencies/weak fundamentals and/or integrated with the European market

International trade and financial linkages with the United States, the euro area and China



Sources: ADB MRIO 2019, IMF CPIS, Haver Analytics, IntLink and ECB staff calculations.

Notes: International trade and financial exposures as of 2019. Trade exposures vis-à-vis the United States, the euro area and China are calculated based on Belotti, F. et al. (2021), “icio – Economic Analysis with Inter-Country Input-Output tables”, *Stata Journal*, forthcoming. Financial exposures are calculated as the sum of total portfolio investment assets and liabilities of a country held in either the United States, the euro area or China. All data are in US dollars. The financial exposures to China include Hong Kong.

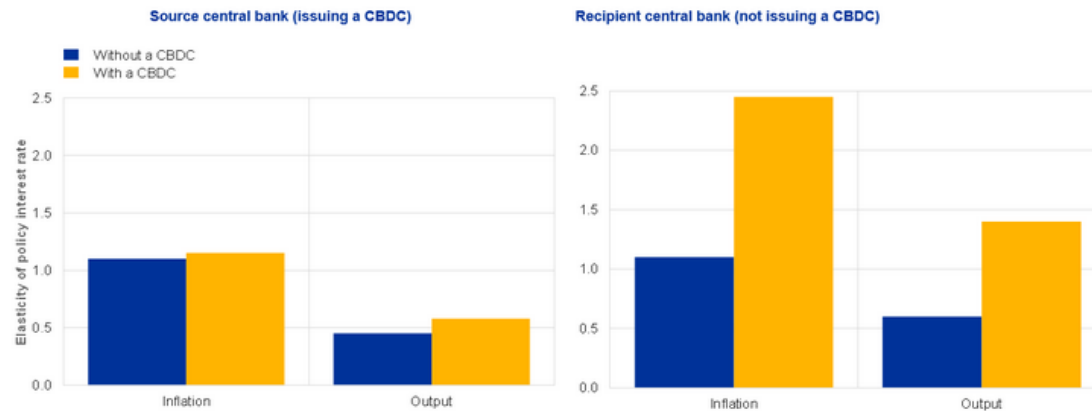
Potential international implications of a digital euro

The second implication is related to **global spillovers**.

Issuing a D€ can **magnify the cross-border transmission of shocks**, increase exchange rate volatility and alter capital flow dynamics.

Economies not issuing a CBDC can be subject to stronger spillovers. Their authorities would need to be more active to stabilize the economy, e.g. **central banks need to be more reactive to output and inflation fluctuations**

Optimal monetary policy in the presence and absence of a CBDC



Source: Ferrari, M., Mehl, A. and Stracca, L. (2020), "Central bank digital currency in an open economy", CEPR Discussion Paper Series, No 15335, Centre for Economic Policy Research, October.

Notes: Model-based optimal response to output and inflation of the central bank Taylor rule in the presence and absence of CBDC under a fixed-remuneration design. The key parameters optimised are interest rate persistence, the elasticity with respect to inflation and the elasticity with respect to output.

See Panetta (2021), "Hic sunt leones" – open research questions on the international dimension of central bank digital currencies, speech at the ECB-CEBRA conference on international aspects of digital currencies and fintech

Concluding remark

These potential implications should be compared with **the structure of the payment ecosystem in 5 or 10 years**, i.e. taking into account the evolution of money (emerging forms of digital money, e.g. stablecoins) and of the payment market (e.g. growing concentration, greater integration)