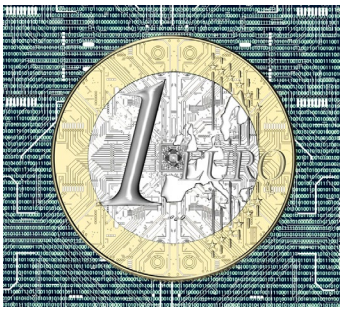# The Digital Euro

Markus Brunnermeier

Hoover Monetary Conference

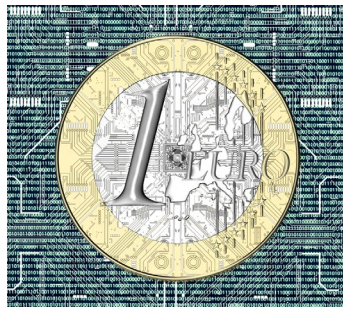Stanford University

Palo Alto, 3. May 2024

Digital Money & New Tech Trends

Ledger

Money ← → Payment System

- *New:* connect "payment ledger" with other programmable ledgers
  - Supply chain ledgers
  - BigTech ledgers/platforms (Amazon, Alibaba)
  - Credit ledgers

  - Enables automatic execution/settlement, "smart contracts

- Controlling ledger is key
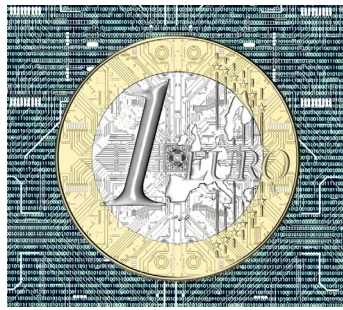
Public vs. Private Money or PPP

- **Polar case:** Libertarian (Hayek) vs. Vollgeld (Sovereign Money)
- **Private**

- **Tiered PPP** CB + banks + stable coins   CB + banks + (BigTechs platforms)

Anchor

Public vs. Private Money or PPP

- **Polar case:** Libertarian (Hayek) vs. Vollgeld (Sovereign Money)
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Money	**Payment system**
▪ Initial coin offering revenue	
▪ Make coin systemic	
▪ Get public guarantee	
▪ Rent extraction + underinvestment in resilience	

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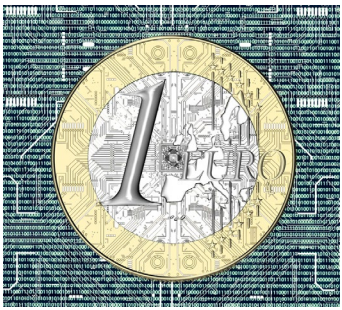- **Private**

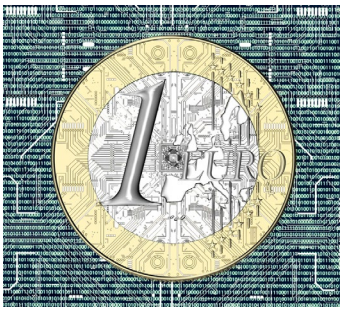|	**Money**	**Payment system**
	Initial coin offering revenue	Exclusion power (from platform + ledger)
	Make coin systemic	able to extent credit (enlarges contracting space)
	Get public guarantee	"natural monopoly
	Rent extraction + underinvestment in resilience	Rent extraction + keep inefficiencies

- **Tiered PPP** CB + banks + stable coins   CB + banks + (BigTechs platforms)

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- **Tiered PPP** CB + banks + stable coins   CB + banks + (BigTechs platforms)
  - ▪ <u>Convertibility</u> Approach | Anchor | <u>Competing</u> Approach
    -     into cash, CBDC   "CBDC" payment systems (back rail), privacy
  - ▪ <u>Regulatory</u> Approach
   - ▪ (i) bank regulation (ii) FDIC (iii) LOLR

PPP: CBDC & Interconnected Legers/Platforms
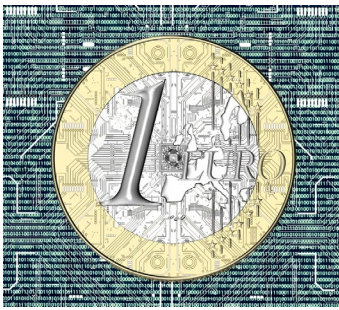
- Option 1: CBDC with separate ledger (digital Euro)
  - CBDC competes with private interconnected platform-ledger
    some payments are with CBDC
    ⇒ limits rents extraction from "natural monopoly"

- Option 2: "Smart Interoperable CBDC ledger"
  is interoperable with all private ledgers + enables smart contracts
  - Private platforms change focus
    ⇒ shift to enable "side trades" (black market with its own token)

> "Strategic Credit and Money Ledgers"
> … with Jonathan Payne

Digital € to maintain Monetary Sovereignty
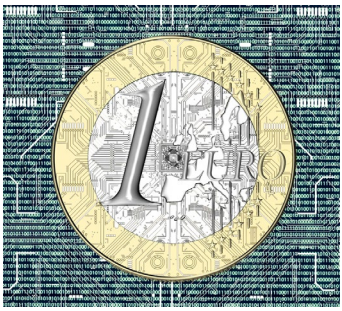
- Monetary policy to manage business cycle   *Central Bank*
  Should private firms' MoPo manage the macroeconomy?
  - **Unit of account** role of money

- Seigniorage rents from money creation   *Central Bank*
  - **Store of value** role of money   *& private banks*
  - **Financial repression**

- Power to exclude from monetary system   *?*
  - Sanctions, reduce dominance of US Credit cards

- Power to bail out and to provide liquidity LOLR   *Subsidy to private banks*
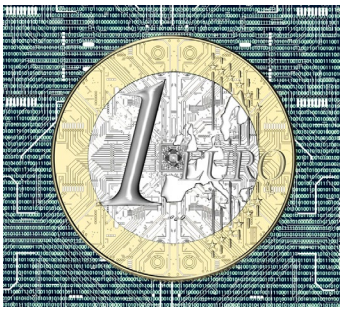 - Connected to taxing power, fiscal space, governance

Digital € to maintain Uniformity of Currency
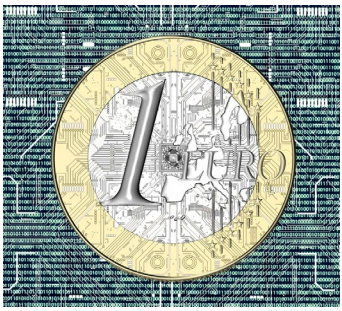
- "Many issuers, but one money"
  - Inside money (checking accounts, …)

- Programable money vs. programable wallets
  - Special purpose money

- Why uniformity of money?
  - Eases price comparison   – easier in digital world anyway
  - Eliminate exchange rate risk/re-denomination risk
  - Information insensitiveness – no lemon's problem

"The Digital Euro"
Report to European Parliament
… with Jean-Pierre Landau

- Digital Euro as **Catalyst** to European Payment System (EPI)
  - Coordinate banks across nations

CBDC Design: Monetary Transmission Mechanism

- Currently, Asymmetric policy rate path through:
    - Loan interest rate   transmission of policy rate
    - Savings interest rate   transmission (i) partial (ii) with delay

    - CB's interest rate hike, increases private banks net interest margins

- CBDC which **pays interest rate** might improve **policy rate pass through**
    - Lowers private banks net interest margins
        - Given banks' long-dated assets holdings with low fixed interest, introduction with CBDC might trigger financial instability

- **Financial Stability/Runs**   CBDC as another safe haven
    - On a single bank   -- also run in another private bank   ECB can backchannel
    - On the financial system   -- run abroad

# "Digital Currency Areas" - Global Fragmentation
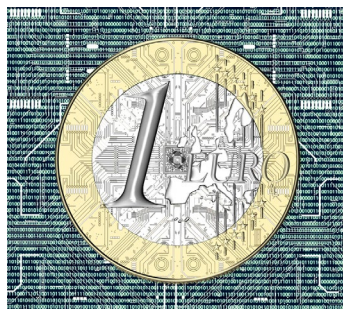
Shaped by privacy regulation

▪ Europe: **Digital Euro** (CBDC)

- Consumer (not industry 4.0 focused)

- Challenges:

- Programmable/Smart contract integration is limited

- CBDC as legal tender undermines smart contracts further

▪ US: **Stablecoins** in US $
- programmable tokens of social networks/industry 4.0
- Challenge: regulating stablecoins, platform interoperability

offensive

Rent seeking by Stablecoin companies

▪ China: **AliPay** and **WechatPay** + Digital Yuan

- Consumer (convenience) + medium of exchange focused

▪ EMDE: Domestic CBDCs to fend off **digital dollarization**

- Challenges: loss of monetary sovereignty and cheap funding

defensive

The Digital Euro: Conclusion & Main Takeaways
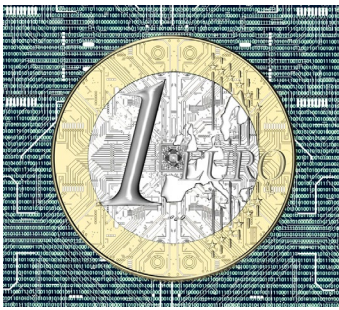
- No strong business case

- PPP: Compete/convertibility   vs. Pure regulation-based

- Geoeconomics and geopolitics are drivers
  - Uniformity of E-currency across Euro area
    - Eliminate "de-nomination risk" (like during the Euro crisis)
  - Less dependence on US (credit cards)   ("Fear of Trump's randomness)

- Option of larger financial repression (via inflation)

- Digital Euro design is key
  - Competitor to private players
    - Limit rent extraction – pass through of policy interest rate
    - Privacy option
  - Financial stability

THANK YOU