Digital Money & New Tech Trends

- **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)

- **Private**
  - **Money**
    - Initial coin offering revenue
    - Make coin systemic
    - Get public guarantee
  - **Payment system**
    - Rent extraction
    - (+ underinvestment in resilience)

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

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## Public vs. Private Money or PPP

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**Tiered PPP** CB + banks + stable coins

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- **Tiered PPP**
  - CB + banks + stable coins
    - **Convertibility** Approach into cash, CBDC
    - **Regulatory** Approach
      - (i) bank regulation (ii) FDIC (iii) LOLR
  - CB + banks + (BigTechs platforms)

- **Payment system**
  - Exclusion power (from platform + ledger)
    - Able to extent credit (enlarges contracting space)
    - “natural monopoly
  - Rent extraction + keep inefficiencies

- **Competing** Approach
  - “CBDC” payment systems (back rail), privacy
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
  - Should private firms’ MoPo manage the macroeconomy?
  - **Unit of account** role of money

- **Seigniorage** rents from money creation
  - **Store of value** role of money
  - **Financial repression**

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

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

*Central Bank*

*& private banks*

*Subsidy to private banks*
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

- 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
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

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

"Digital Currency Areas" - Global Fragmentation

*Shaped by privacy regulation*

offensive
Rent seeking by Stablecoin companies

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