

Panel: Future of Crypto

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Private Digital Money (incl. crypto)

- Minus: Large redistribution scheme
 - Large ICO revenues for private money creation (without regulation)
 - Get government approval/backing ex-post
 - Plus/Opportunity:
 - **Programmable** money
 - Smart contracts
 - **Contract enforceability**
via exclusion power
- money ledger is part/can be connected to other ledger

Ledgers

- All digital monies require a digital ledger to keep track of transactions.
The difference btw digital monies is in how the ledger is organized.
 - Connection to ledger/platform but “market power” to ledger controller/platform
 - Interoperability
 - Centralized ledgers, not DLT
- Extensive competition over who controls digital ledgers (and settlement assets)
 - **Consumer:**
“BigTech” platforms with tokens and/or consumer credit (e.g. Alibaba, Meta, Amazon),
 - **Industry:**
Supply chains with payments, inventory tracking, & automatic contracts (e.g. Corning),
 - Decentralized ledgers with stablecoins and “smart” contracts (e.g. Ethereum)
 - Government responses such as Central Bank Digital Currency (CBDC).
- Tokens as stablecoins
 - (required) backing and convertibility of stable coins
determines ICO “seigniorage” benefits
 - If .9 backing, 90 cent have to be parked at a wholesale CBDC

Power of controlling the ledger? (settlement asset)

- Power to **exclude** from
 - Ledger (payment system)
 - Platform (including matching of buying/sellers)

} Bundling strengthens exclusion power
- Enables new **(smart) contracts** – better enforcement
 - If ledger controller/**platform lends** directly:
exclude defaulter from payment system/platform
 - If financial **intermediaries lend**
exclude other intermediaries (who accepted defaulters' revenue)
 - In a setting where a borrower defaults on his promise to use part of its sales revenue to repay its loan.
 - He can default and fully keep his sales revenue but has to park his revenue at some OTHER intermediary
- Brunnermeier & Payne (2022) “Ledger, Platforms, and Interoperability”

Power to exclude and to extract rents

- Natural monopoly
- How to balance both?
- Contestable “ledger market”
 - Degree of interoperability – how easy to switch?
 - New ledger/platform has worse matching technology
 - New ledger can allow switchers to default.

2 Models – Implications for CBDCs

- Model 1: **Stablecoin wholesale CBDC**
 - Private (platform) ledgers are programmable (AI) and fully integrated in ledger (B2B, social media)
 - Token is convertible to wholesale CBDC
- Model 2: **Interoperable/programmable CBDC**
 - CBDC ledger is programmable fully interoperable with all private platforms/ledgers
 - Even if executing is driven by (unexplainable) AI
 - Is this feasible?
- CBDC with interest rate
 - ⇒ reduces market power of private banks
 - ⇒ better monetary transmission
 - ⇒ financial instability

“Digital Currency Areas” - Global Fragmentation

Positive (not normative)

Shaped by privacy regulation

- **US:** **Stablecoins** in US \$
 - programmable tokens of social networks/industry 4.0
 - Challenge: regulating stablecoins, platform **interoperability**
 - **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
 - **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
- Rent seeking by Stablecoin companies*
- offensive**
- defensive**

THANK YOU