

HYPERLEDGER Capital Markets SPECIAL INTEREST GROUP

Vipin Bharathan Founder *dlt.nyc*



CBDC Patterns

Vipin Bharathan

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Agenda

- 1. CBDC
- 2. Concepts
- 3. Patterns



LIABILITY OF CENTRAL BANK

- LEGAL TENDER
- PEER-TO-PEER
- No Interest
- ANONYMOUS
- Physical Token
- Physical Presence Needed
- NO RECOURSE



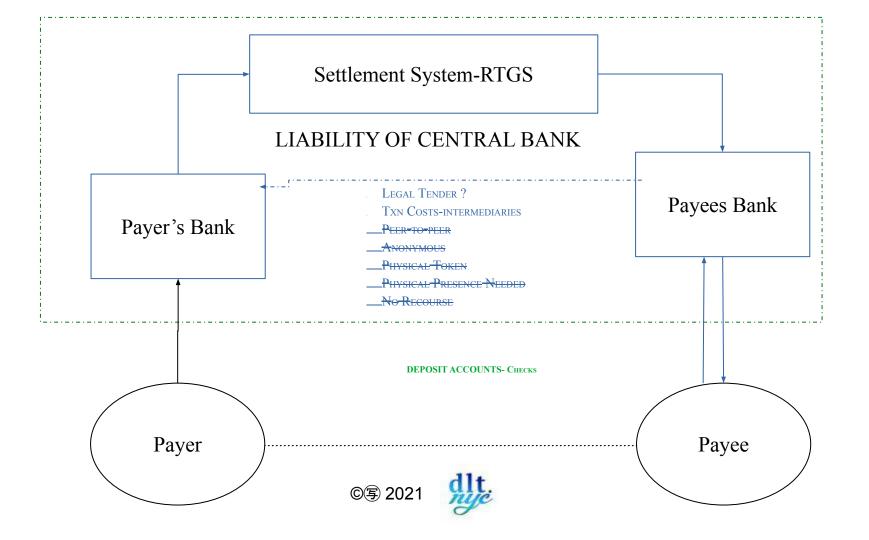
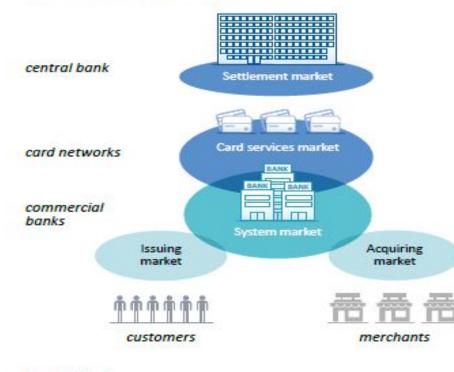


Figure 1. Relevant markets in the card-payment value chain



Source: The Riksbank



LIABILITY OF CENTRAL BANK

- Legal Tender Clarify
- PEER-TO-PEER TOKEN OR OTHERWISE
- No-remuneration
- ANONYMOUS ?
- PHYSICAL TOKEN
- PHYSICAL PRESENCE NEEDED
- NO RECOURSE



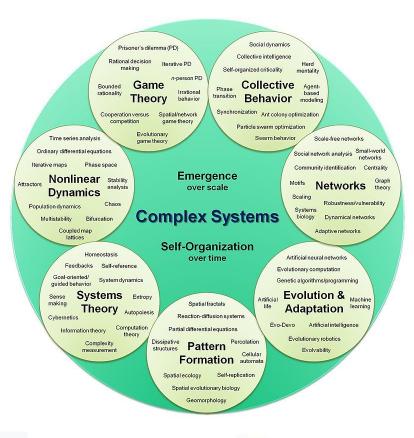
Concepts

- Monetary Policy
- Public Utility
- Interoperability
- Privacy
- Security
- Operations



Complexity

- TECHNOLOGY
- GAME THEORY
- Economics



SOURCE: Created by Hiroki Sayama



- FROM ARCHITECTURE
- Recurring Problem/Solution
- Abstraction Level
- Reuse



Tripod For Money

- UNIT OF ACCOUNT
- STORE OF VALUE
- MEDIUM OF EXCHANGE



Price

- PAR
- Forward
- Fx
- Commodity



Lifecycle

• MONEY SUPPLY

- \circ Mint
- Burn
- MOVEMENT
 - HOLD (TIME)
 - TRANSFER



Hybrid pattern

• SATISFY BOTH

- TOKEN & ACCOUNT
- CENTRAL BANK & TWO-TIER



Rail pattern

• IN ADDITION TO



TIER PATTERN

• Rules Based On Holding

- INTEREST PAYMENT
- KYC OVER A LIMIT
- Additional Features



Leaf Pattern

• CONSTRAINED TRANSFER

- $\circ \quad \text{Wallet Checks Limits}$
- WALLET ENFORCES PRIVACY
- Eventual Consistency
 - DISCONNECTED EXCHANGE
 - FINANCIAL INCLUSION
 - Cryptonotes



Thank You

Vipin Bharathan dlt.nyc - President vip@dlt.nyc

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