

LOUGHBOROUGH
BUSINESS SCHOOL



The governance and regulation of digital assets

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Second of three webinars delivered for UK Finance

The three webinars

- Last week: Thursday Nov 26th, 10.00-10.45
Webinar one: An overview of crypto & digital assets.
- Today, Thursday Nov 2nd, 10.00-10.45
Webinar two: The governance and regulation of digital assets.
- Next week: Friday, Nov 10th, 9.30-10.15
Webinar three: digital assets in practice.
- **Follow up “roundtables”**

The Loughborough digital asset framework

Two features of digital assets (combining both)	Request based systems access	Direct systems access
Indirect holding	commercial bank deposits, securities accounts with a custodian	Crypto exchanges (without true custody), 'tokenized deposits', enhanced payment systems
Direct holding	Securities ownership through "digital certificates"	Crypto assets (DeFi), tokenised securities, central bank digital currency, crypto exchanges (true custody)

Agenda for this webinar

- Exploring a third feature of some digital assets
 - “code-based” not “contract-based”
 - Implications for crypto and defi regulation
- Regulation of contract-based digital assets
 - Held on (multi operator) permissioned ledgers
- Decentralisation and operational automation
- Collective governance

Code-based digital assets

- No intermediary required for holding/ access
- Covers all of crypto and most defi
 - Cryptocurrencies
 - Stablecoins on crypto exchanges
 - DeFi: staking, lending, farming, liquidity pooling &tc.
- Based on permissionless ledgers; P2P
- Necessarily (? What about crypto exchanges)
 - Directly held; AND
 - Directly accessed
- Outcomes determined by code (smart contracts)

Regulatory implications for crypto

- Crypto and most DeFi is code-based
 - So, no intermediary to regulate
 - Regulate service providers (the approach of MiCA in EU)
- Financial crime: focus on fiat on-ramps/ off-ramps
 - requires globally consistent approach
- Prudential regulation: ban indirect holding of code-based assets
 - Insist that (regulated) exchanges employ true custody
 - Similarly, for banks, asset managers: no indirect holdings.
- Customer protection
 - Responsibility placed on the servicer, providing direct access
 - Global consistency a challenge

“contract-based” not “code-based”

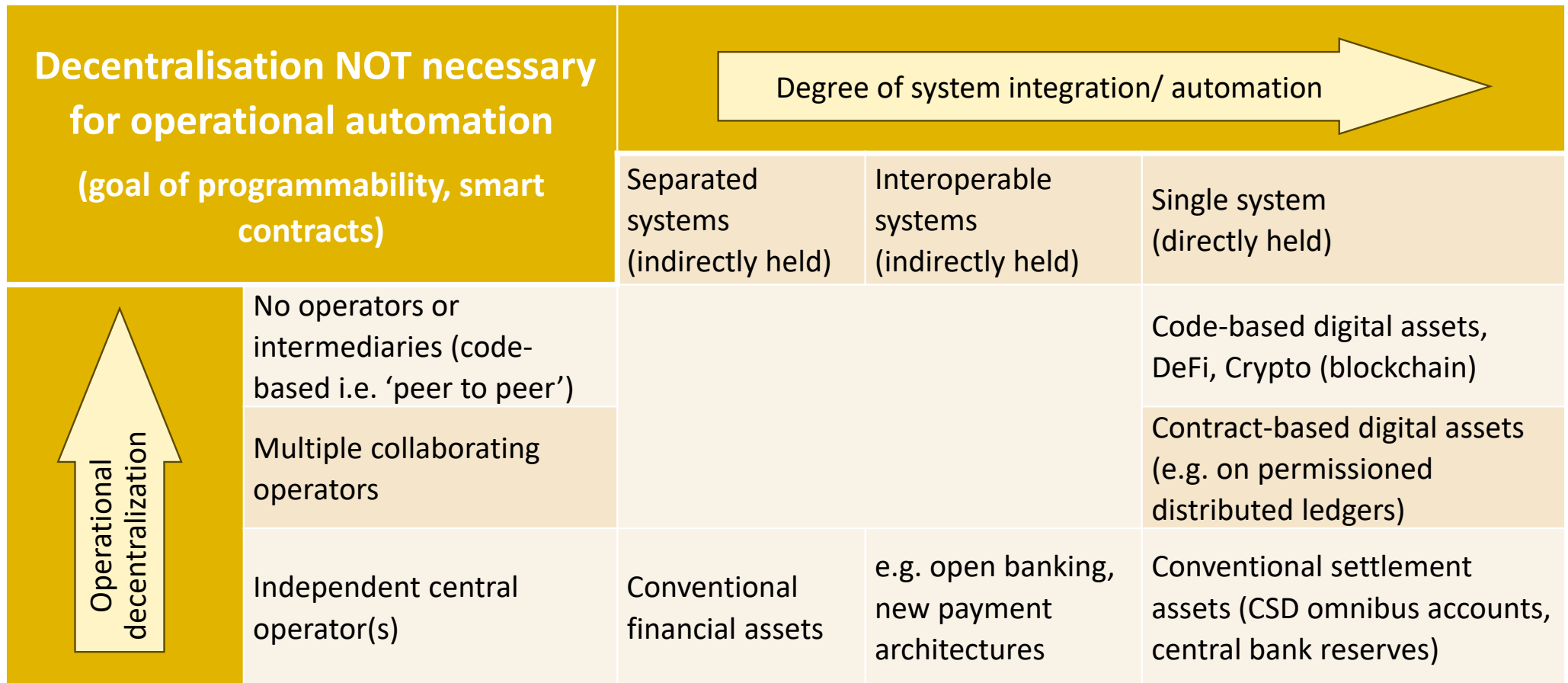
- Conventional financial assets
 - Single operator of record system, contract based
- Digital assets on permissioned ledgers
 - Again contract-based not code-based
 - Key issues; avoiding contractual ambiguity; allocating regulatory responsibilities. A single lead institution or collective responsibilities. Joint venture analogy
- Not *necessarily* directly held...
- Contract-based assets on permissionless ledgers.
 - (e.g. CBDC as an anonymous cash substitute)
 - Key regulatory issue, to what extent will this be allowed?

Direct systems access

‘tokenized deposits’, enhanced payment systems

tokenised securities, central bank digital currency

Decentralisation and operational automation



Collective governance of contract-based systems

- Not a new challenge! A thorny infrastructure perennial!
 - e.g. standard setting (ISO20022, Fix, ISDA standards), payment schemes
 - Unavoidable for operational automation of contract-based assets
- Indirect holding
 - Collective governance only for inter-intermediary operations and settlement
 - Network effects critical; adoption depends on collective governance
- Direct holding
 - Multiple operators? Joint venture? Governance key.
- Different architectures
 - User owned
 - State owned or state mandated
 - For profit

Summary of today

- “code-based” digital assets
 - Regulate crypto and defi through separation
 - Insist on true custody
- Regulation of “contract-based” digital assets
 - joint venture (multi operator) permissioned ledgers?
 - deal with ambiguities in regulatory and contractual responsibilities
- Decentralisation not necessary for operational automation
- Collective governance

To follow

- Next week: Friday, Nov 10th, 9.30-10.15
Webinar three: digital assets in practice.

Covering both large value and small value applications

- **Then the “roundtables” on specific application areas**

retail consumer payments, consumer risks and consumer protection, remittances and other cross-border payment, digital replacements for cash, sme invoicing and supply chain payments, financial market transactions