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Item 1 – Discussion of survey results

CBDC Technology Forum
January meeting

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Item 2 – Framing the discussion

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Working hypothesis for a CBDC vision

- This vision is solely intended to provide a framework and guidance for CBDC Technology Forum conversations, and to avoid infinite scope
- This vision is not an official Bank of England position
- This might evolve over time, and may be adjusted for specific topics

The vision for a CBDC is to provision a public payment infrastructure for central bank money which would provide a universal settlement mechanism in a future of rapidly evolving digital ecosystems.

The CBDC will encourage innovation by allowing a wide and varied range of private sector firms to develop more advanced services, in a safe and interoperable manner that fosters advantageous competition.

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Item 3 – Account vs Token vs Hybrid

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Distinctions

Account-based systems:

- State recorded as a list of accounts
- Each account has a corresponding balance.
- Accounts are updated by increasing/decreasing balances.
- Authorisation required to prove the identity of the account holder in order to initiate a transfer

Token-based systems:

- State recorded as a list of assets (tokens)
- Tokens have a record of a corresponding owner who controls it
- Tokens may be destroyed and replaced when spent (with one or more tokens of the same total value)
- Authorisation required to prove ownership of the token in order to initiate a transfer

Objective of the session

To compare the different ledger data structures across a range of design areas to understand advantages and disadvantages of each

Member presentations

Considerations

- What are the costs and risks from a technology and operational perspective of enabling each type?
- Is either approach better suited for fostering future innovation in a manner that doesn't risk the integrity of the core platform?
- Does either approach better support offline transactions in a way that maintains consistency in a ledger?
- Does either approach better support a range of privacy and cryptography options while also compliance with financial regulations?

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Item 4 - Programmability

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Distinctions

- ***Programmable Money*:**
  The ability to modify the functionality or qualities of a digital currency unit.
- ***Programmable Payments***:
  The ability to condition when, and to whom, payments should be made – to varying degrees of complexity.
- ***Smart Contracts*:**
  An extension of programmable payments that may include an automatable agreement between multiple parties. There are many facets and implementations of smart contracts to consider.

Objective of the session

To understand what might be achieved with programmability, and the different ways this might be achieved, considering the trade-offs and risks associated with the different approaches

Member presentation

Considerations

- Where are the benefits that derive from these different forms of programmability?

- What are the costs and risks from a technology and operational perspective of enabling each type?