A quick digital payments tour

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Introduction

• The evolution in forms of money

• Brief tour around the globe
  • Stablecoins
  • Retail CBDC
  • Wholesale CBDC

• DFCRC/RBA study
  • Scope, platform and rules
  • Use cases
  • Findings: benefits, attributes of CBDC

• Questions for the future
Different Forms of Money

Current

- Central bank issued money
- Cash
- Settlement or reserve accts
- Bank deposits (E-money, SVFs)
- Electronic money

Future?

- Central bank issued money
- Cash
- Settlement or reserve accts
- Retail CBDC
- Wholesale CBDC
- Bank deposits (E-money, SVFs)
- Regulated stablecoins
- Electronic money

Cryptocurrencies
Stablecoins: Where are we now?

- Almost entirely a USD phenomenon to date
- Limited use outside of crypto environment so far??
- Central banks: if stablecoins are going be widely used as a form of money, then they will be regulated to be extremely safe (so you can forget algorithmically backed coins)
- Singapore and others leading the way on regulation: Like stored-value facilities but with new technology?
Retail CBDC: Where are we now?

• Bahamas, Jamaica, Nigeria, Eastern Caribbean. China still pilot, not full issuance. India now piloting.

• Rationales: Mostly financial inclusion and payments system efficiency

• Some are using DLT, some not

• Limited work to build ecosystem and two-sided market. Extremely slow take-up by population.

• No advanced economy issuance. But ECB heading towards decision? Working hard on all aspects of ecosystem. Bringing European Commission along the journey.

• Many others happy to watch ECB progress. E.g. Sweden slowing down?

• Advanced economy rationales: Preserving access to central bank money; resilience; ‘strategic autonomy’; etc
Wholesale CBDC: Where are we now?

- No decisions to issue yet
- But some advanced economy jurisdictions see stronger case than for retail CBDC; eg Australia, Singapore; as settlement asset for tokenised markets, atomic settlement, smart contracts etc.
- Possibly only a modest evolution relative to provision of existing CB settlement accounts
- BIS Innovation Hub: lots of cross-border experiments using wCBDC
DFCRC/RBA Australian research project

• What are the business models and use cases that a CBDC could support and which are not effectively supported by existing payments and settlement infrastructures? We need to go beyond technology pilots or desktop research.

• Our project was real money, real customers and real regulatory review

• Minimal guidance on types of use cases for CBDC (could be ‘retail’ or ‘wholesale’, i.e. consumer or business or financial market use cases)

• Private, permissioned DLT platform based on Ethereum (Quorum)

• 170 submissions and 16 use cases selected: from large financial institutions to small fintechs

• RBA issued CBDC directly to existing counterparties in exchange for ESA/reserve balances and to others via a bank/agent
## Diverse use cases: Mostly B2B but some involving households

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<th>Diverse use cases: Mostly B2B but some involving households</th>
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<tr>
<td>Trading of nature-based tokenised assets (x2)</td>
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<td>Corporate bond settlement</td>
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<td>Tokenised HQLA securities trading</td>
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<td>Retirement savings contribution payments</td>
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<td>Automation of VAT payments</td>
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Findings: Potential benefits to businesses and households from CBDC

• Enabling smarter payments: eg multi-party or multi-stage payments using smart contracts
• Supporting innovation in financial and other asset markets; eg tokenisation of assets, DLT platforms, atomic settlement
• Promoting private digital money innovation: eg promoting interoperability and uniformity of tokenised bank deposits or stablecoins
• Enhancing resilience and inclusion in the digital economy; eg offline payments, payments that do not require a bank account
Findings: Key CBDC attributes valued in use cases

- Claim on the central bank (guaranteed value, no counterparty risk)
- Direct control (holder did not have to rely on an intermediary)
- Programmability (smart contracts to improve efficiency or reduce risk in complex business processes)
- Atomic settlement (reducing settlement risk and improving efficiency)
- Transparency (valued by some – but not other – use cases, eg CBDC as backing for stablecoin)
Program Report

- See RBA and DFCRC websites
- Valuable learnings on:
  - How CBDC could be used to enhance the functioning of the payments system – CBDC as a possible infrastructure layer for private-sector innovation
  - Highlighting legal, regulatory, technical and operational issues that need to be understood/addressed
  - Providing a forum for interacting with industry and improving policymakers’ knowledge
  - Identifying areas for future research
Questions for the future

• Can there be a Goldilocks demand for retail CBDC?
• Can modernising RTGS be a substitute for tokenised wCBDC?
• Does Regulated Liabilities Network or BIS ‘unified ledger’ have legs?
• How could CBDC interact with stablecoins, tokenised deposits etc? Facilitating? Or Competing/replacing?
• Who should have electronic access to central bank balance sheet?
• Large network companies haven’t been successful with stored-value products; will it be different with stablecoins?