

**Global CBDC Challenge launched by the Monetary Authority of Singapore**

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One Asia Lawyers Singapore office

We would like to inform you of a unique event launched in Singapore, as one of the most advanced nation in digital technology.

While El Salvador has adopted Bitcoin as legal tender, approximately 90% of countries around the world are examining the possibility of issuing their own CBDC and 14% deployed pilot projects last year. Bahamas and Cambodia have officially launched their own CBDC in October.

In Singapore, “Project Ubin” started in 2016 to experiment the use of CBDC and completed in 2020. This month, the Monetary Authority of Singapore (MAS) and the Banque de France announced the successful completion of a cross-border payment experiment using CBDC.

MAS is launching an interesting event, named “Global CBDC Challenge”. In this event, companies around the world are invited to submit proposal for the “12 problems” in relation to retail CBDC and 3 winners will be chosen.

Finalists will have the chance to pitch their ideas during the world biggest fin tech event, Singapore FinTech Festival, on 8 November.

Please refer to twelve problems raised by MAS below, which points out the necessity and issues of the introduction of CBDC.

As Japanese companies can also participate in the event, fin-tech startups may consider submitting their proposal.

**Proposal submission will end on 23 July 2021.**

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**1. New Functionalities vs Inclusivity**

Can a retail CBDC system be embedded with additional functionalities beyond a basic transfer of value without requiring users to use smartphones (or other expensive/complex hardware)?

How might this improve the efficiency and effectiveness of Government-to-Person payment programmes in the context of an economy with low levels of digital penetration?

**2. Security vs Accessibility**

Can the design of a retail CBDC system be highly secure for users (e.g. one that prevents unauthorised uses and illicit transactions) without compromising the ease of use? Would such a system be able to cater to the varied needs of the elderly, minors, and those with disabilities?

**3. Availability vs Risk of Disputes**

Can offline transactions be enabled in areas with no or limited internet connectivity? What safeguards against double-spending and counterfeiting can be embedded to minimise disputes related to offline payments?

#### 4. Recoverability vs Anonymity

In the event of theft, damage or loss of a wallet, card or instrument, can a retail CBDC system adequately trace transactions, limit the loss or support the recovery of lost funds without compromising user identity?

#### 5. Widespread Frictionless Use vs Control

Are there technological features that can be incorporated into a retail CBDC solution to minimise the risk of significant and abrupt outflows from bank deposits to the CBDC, while ensuring that the use of the CBDC is as seamless as possible?

Are there technical designs that would allow a retail CBDC to be used for cheaper and faster cross-border payments, and yet mitigate the risk of generating more volatile and destabilising capital flows between countries?

If the proposed technological solution is dependent on or designed for particular policy choices by central banks, participants should elaborate on their assumptions in the submission.

#### 6. Personal Data Protection vs System Integrity

Can the retail CBDC solution protect personal and consumer transactions data, while allowing for monitoring, detection and prevention of illicit activities on the network (e.g. money laundering /terrorism financing, fraud, scams and corruption)?

#### 7. Expanding Access to Financial Services vs Guarding against Data Monopolies

How can the design of a retail CBDC solution allow participating firms to harness payment data to enable the offering, customising, or improving the pricing of financial services (e.g. credit, insurance) to users, while avoiding the undesirable effects of data monopolies on consumer welfare over time? How might users retain control over use of their data?

#### 8. Coexistence vs Integration Complexity

How can a retail CBDC solution allow financial institutions to distribute CBDCs to the end user in a manner that leverages existing national payment rails such as a country's payment systems, while keeping participation cost competitive at minimal disruption?

How can it process payments between users on different payment systems without introducing the need to involve additional intermediaries, or needing custom integration for onboarding?

#### 9. Decentralisation vs Accountability

How can a retail CBDC infrastructure be made more resilient to single points of failure? Can concentration risks be minimised through decentralisation? How can we develop a safe, stable

and sustainable governance model for such decentralised infrastructure with clear lines of responsibility and accountability?

How can the interests of citizens and market participants as well as financial stability be safeguarded in the event of a failure of such an infrastructure?

#### 10. Extensibility vs Operational Resilience

Can a retail CBDC infrastructure be flexible yet robust, allowing for computationally intensive use of programmable functions and addition of new capabilities without incurring additional overheads in terms of cost, operational performance or introducing system vulnerabilities?

#### 11. Privacy vs Performance

Can a retail CBDC infrastructure incorporate privacy preserving capabilities while remaining high performing, with fast response time, low latency and scalability to support large deployment?

#### 12. Interoperability vs Standardisation

How can interoperability be achieved across different instruments of digital money and across different technologies without a commonly accepted standard?

Standardisation reduces overhead and integration cost. However, international standardisation will require significant coordination. Retail CBDCs in different jurisdictions would need to be interoperable with each other, as well as with nonCBDC systems and non-CBDC forms of digital money to enable better, cheaper, faster payments both cross-border and domestically.

<Contact>

Kazutaka Mori

Partner, Fintech team head, One Asia Lawyers (Singapore office)

Lawyer (Japan), registered foreign lawyer in Singapore

Kazutaka.mori@oneasia.legal