Challenges to Central Bank Digital Currencies and the Future of Monetary Systems in Asia

Hiromi Yamaoka

Head, Future Institute of Research Chairperson, Digital Currency Forum Chief Advisor for international Finance, Tokyo Metropolitan Government

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Modern Monetary System

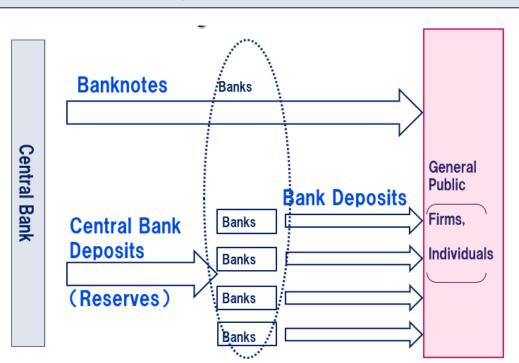
- Each nation has a central bank as the single issuer of its sovereign currencies.
- The monetary system is two-tiered with the central bank and commercial banks.
- The central bank issues two types of central bank (base) money:

Banknotes: used by anyone for daily transactions on a 24/7 basis

Central bank deposits: mainly used by banks for large-scale settlements

Banks supply deposits (commercial bank money) and do financial intermediation.

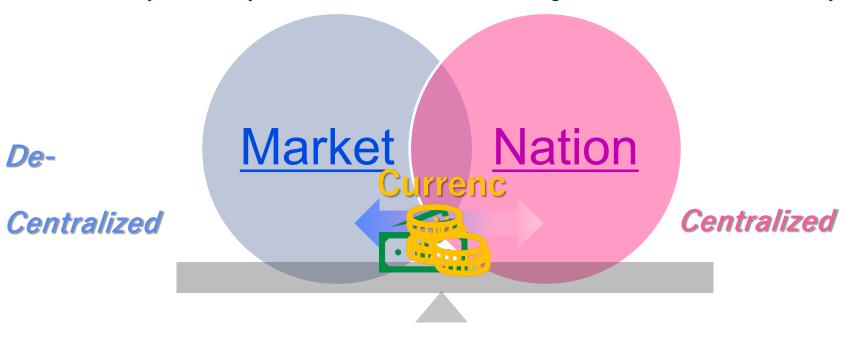
Two-tiered structure of Modern Monetary System (19th century -)



Modern Monetary System

- Balance of Nation and Market -

- Currency, issued by the <u>nation</u>, has been the driving force of the <u>market economy</u>. -

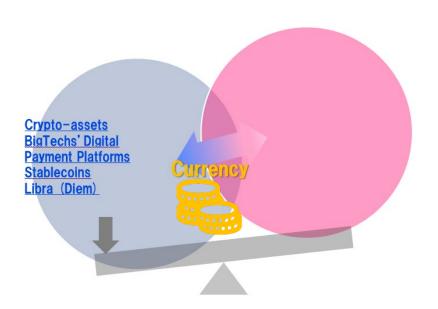


(Benefits and advantages of the modern monetary system

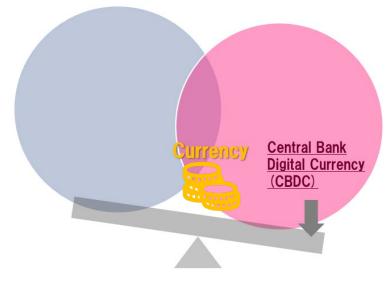
- **■** Efficient resource allocation led by private initiatives
- Fostering <u>private-led innovation</u>
- Avoiding monopolization of data by public entities

Digitization and Monetary System

 Digital Innovation and cryptoassets, BigTech, and stablecoins may affect the balance and change the two-tiered structure.



- Central Bank Digital Currency can be regarded as the authorities' efforts to maintain their controllability of monetary system.
- But CBDC may also change <u>the</u>
 <u>two-tiered structure into the single-tier</u>
 and affect the balance.



Issues in Central Bank Digital Currencies

- Impact on deposit and financial intermediation?
 - Will CBDCs replace not only cash but also bank deposits?
 - Why are bank regulation and deposit insurance needed?
- Digital bank-run?
 - Will CBDCs accelerate liquidity crisis in a market stress?
- Impact on private-led innovation?
- Impact on data and privacy?

Moreover, in Japan

- Financial inclusion is not a problem.
- Japanese people are sensitive to data privacy.
 - interest rate is very low.

Digital Innovation, Data Revolution and Central Bank Digital Currency*

> Noriyuki Yanagawa[†], Hiromi Yamaoka[‡] February 2019

Abstract

Under the developments of digital innovation, global expansion of cashless payments and the emergence of crypto-assets, some argue that central banks should issue digital currencies that can be used by ordinary people instead of paper-based banknotes. The debates on central bank digital currencies are now gathering great attention from worldwide. Although many of major central banks, including the Bank of Japan, do not have an immediate plan to issue digital currencies that can replace banknotes, some central banks are seriously considering whether they should issue digital currencies in the near future or

https://www.boj.or.jp/en/research/wps_rev/wps_2019/data/wp19e02.pd

Digital Currency Forum and DCJPY

Digital Currency Forum in Japan, which consists of over 80 leading firms (including 3 mega banks), tries to introduce two-tiered digital currency platform named "DCJPY".

(Characteristics and Possible Benefits of DCJPY)

- Yen-denominated, and issued by private firms (initially banks)
 - ⇒ Fostering private-led resource allocation and innovation
 - ⇒ Avoiding digital bank run
- <u>Two-tiered structure</u> of common area and "programable" business process area
 - ⇒ Maintaining the benefits of the modern monetary system
 - ⇒ Facilitating <u>utilization of data</u> by private entities
 - ⇒ Applying <u>smart contracts</u> to sophisticated transactions

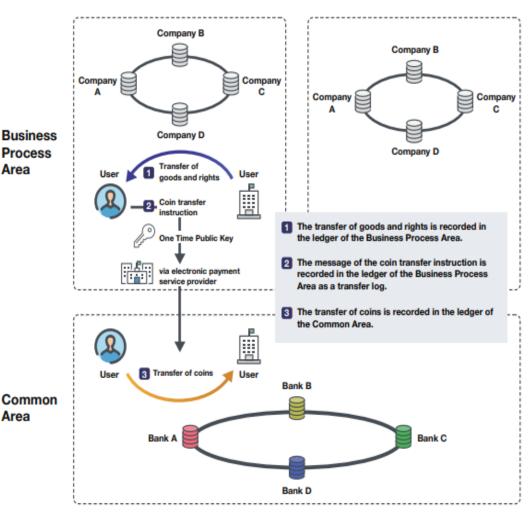
DCJPY - Two-tiered digital currency platform -



Today, the world is facing a variety of challenges. There are strong needs to promote sound developments of digital economy and innovative markets including those of digital assets. Moreover, the world is required to achieve carbon-neutrality, to promote the development of regional economy, and to take effective measures against cyber-attacks. Now, more than 70 leading companies, financial institutions and experts in Japan have gathered at the Digital Currency Forum to work on solving a wide range of issues through applying digital technology to monetary infrastructure. I believe that such initiatives are very meaningful and encouraging, reflecting strong intentions of the industries in Japan to promote digital transformation ("DX").

The Digital Currency Forum will continue to make every effort to overcome various challenges and contribute to the economy through utilizing digital technology for monetary infrastructure.











CBDC and Implications for Asian Monetary System

- ⇒ Function of <u>Financial Intermediation</u> and the Impact on <u>Resource Allocation</u>
- *Function of Banks*, the Role of <u>Banking</u>

 <u>Regulation</u> and <u>Deposit Insurance</u>
- → <u>Data Governance</u>, the Balance between <u>Utilization of Data</u> and <u>Privacy</u>
- ⇒ Future of <u>Central Banking</u>
- → Future of the Balance between Nation and Market behind the Monetary System