

Future of Payments and the Role of Central Banks

December 4, 2024

Speech at the Symposium for the 40th Anniversary of the
Center for Financial Industry Information Systems (FISC)

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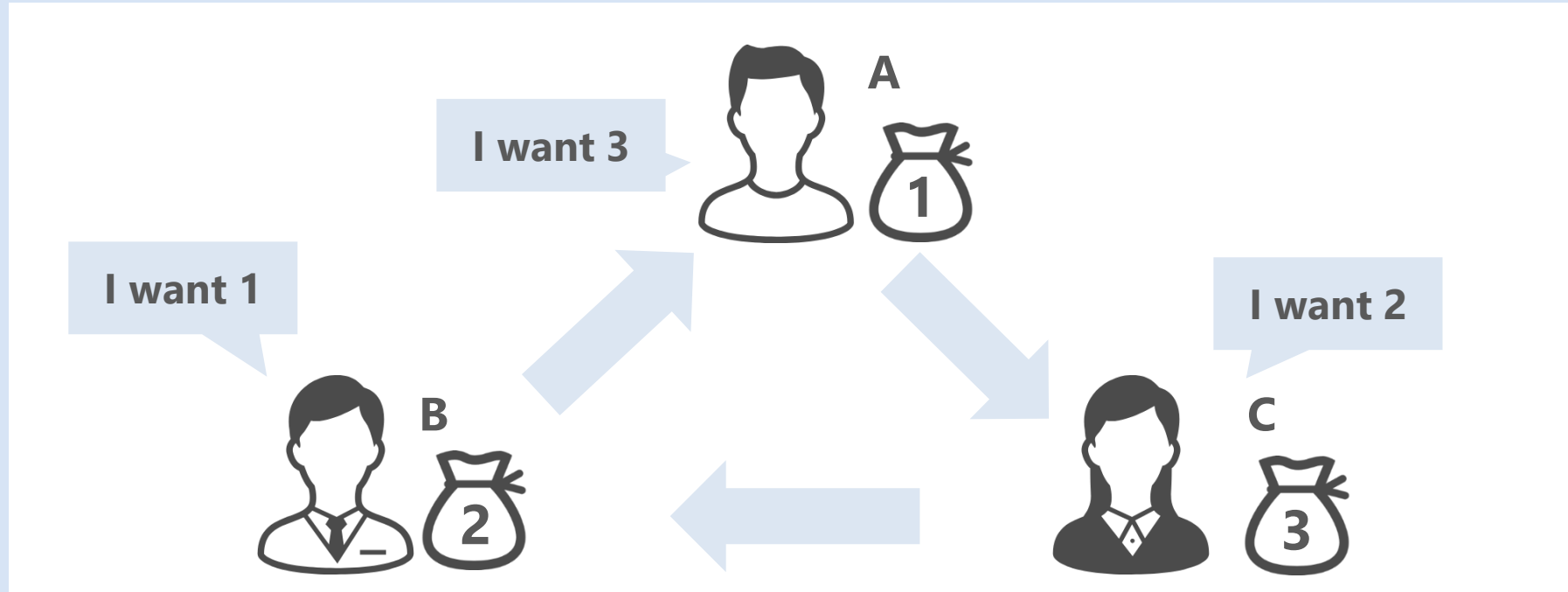
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The Nature of Money: Maintaining the Confidence of Users

(Figure 1) The necessity of money



Exchange of currency resolves this situation



The Nature of Money: Maintaining the Confidence of Users

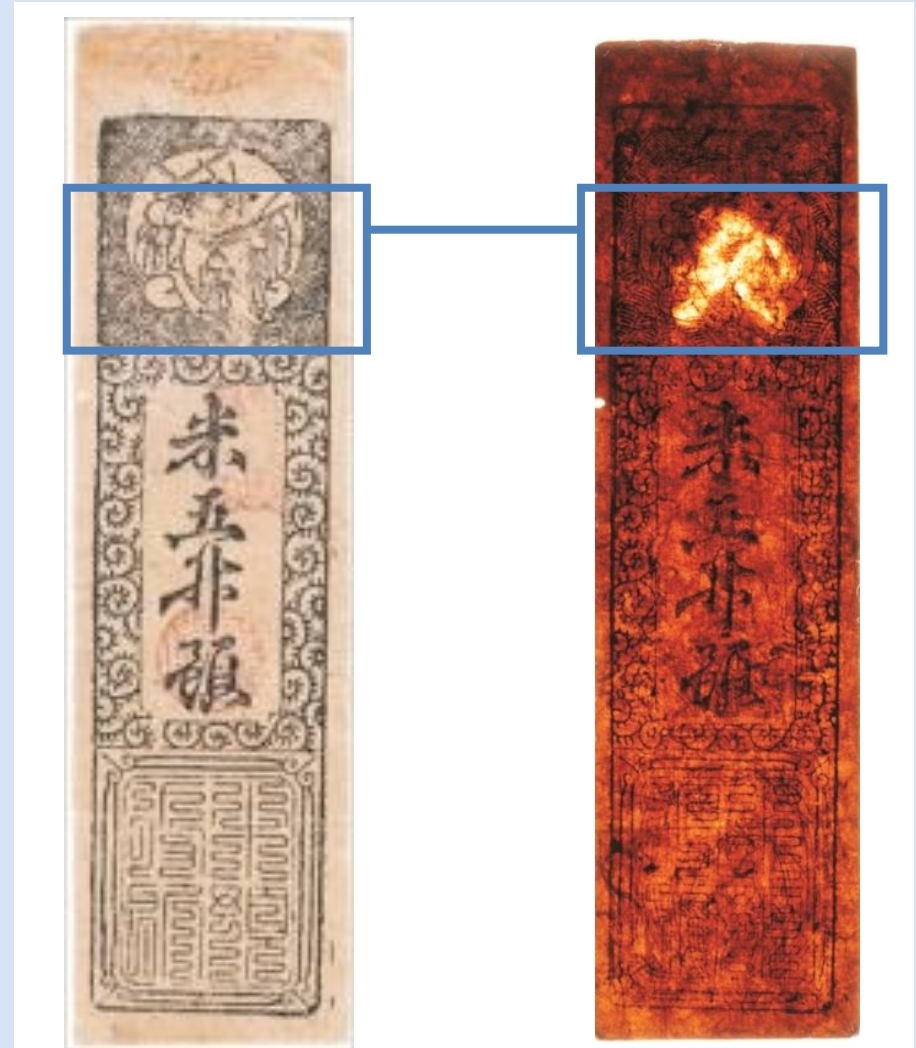
(Figure 2) Anti-counterfeiting measures in the Edo period

Fine text within patterns



Chikugo-yanagawa Han bill

Watermarks



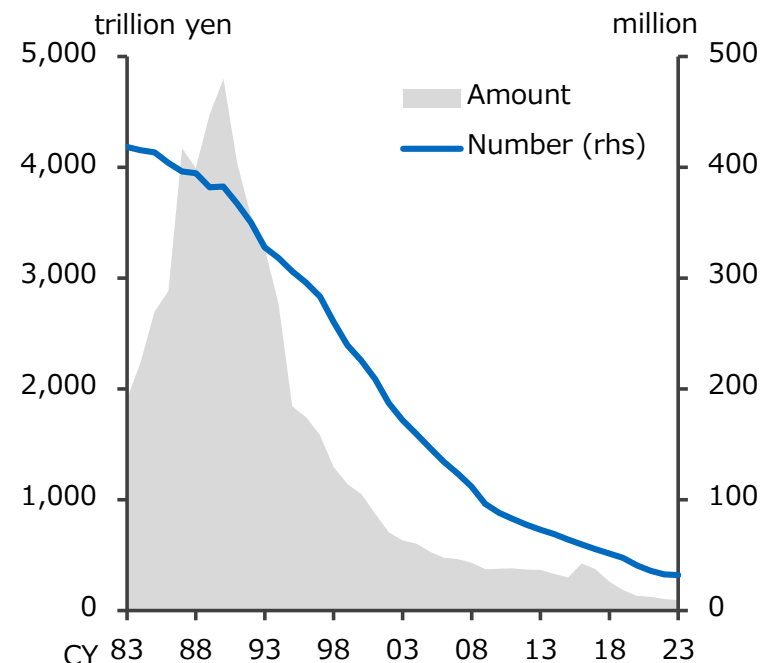
Nagato-chofu Han bill

Development of Digital Technology and Improvements to Payment Systems

(Figure 3) History of the development of payment systems

1970-	Launch of Zengin System
1980-	Launch of BOJ-NET
1990-	Introduction of DVP for JGB settlements Introduction of T+7 rolling settlement system for JGBs JGB settlement cycle shortened to T+3
2000-	Introduction of RTGS system to the BOJ-NET Dematerialization of JGBs and CP Dematerialization of general bonds Dematerialization of investment trusts Dematerialization of listed stocks
2010-	JGB settlement cycle shortened to T+2 JGB settlement cycle shortened to T+1 Implementation of More Time System (realizing Zengin System operations on a 24/7 basis)
2020-	Establishment of “Electronic Clearing House”

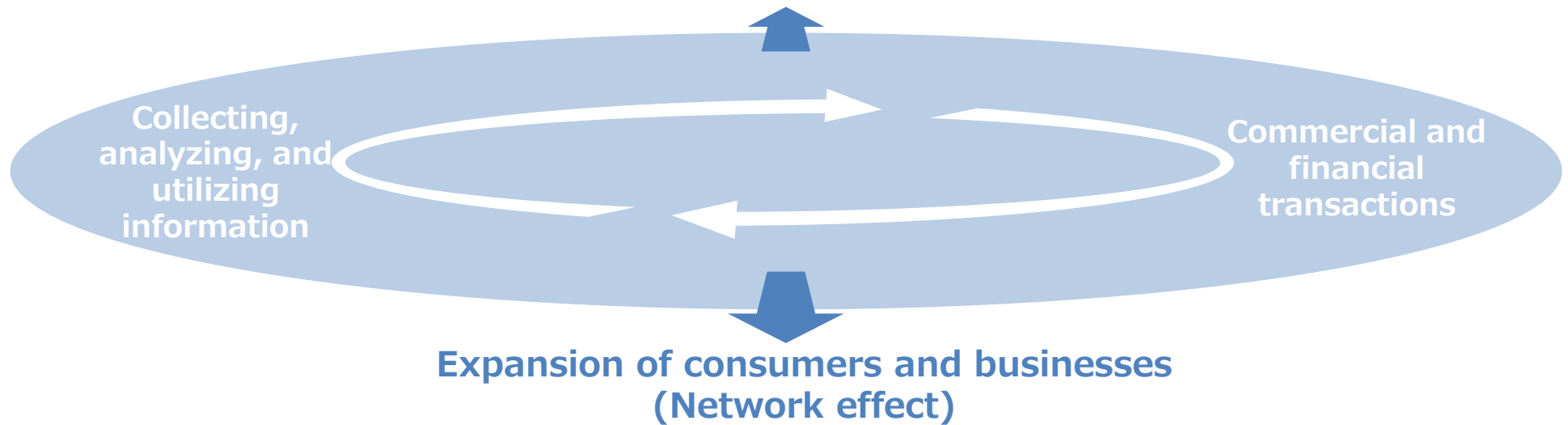
(Figure 4) Volume of bills/checks in circulation



(Source) Japanese Bankers Association

The Digital Economy

(Figure 5) Expansion of the digital economy



Benefits

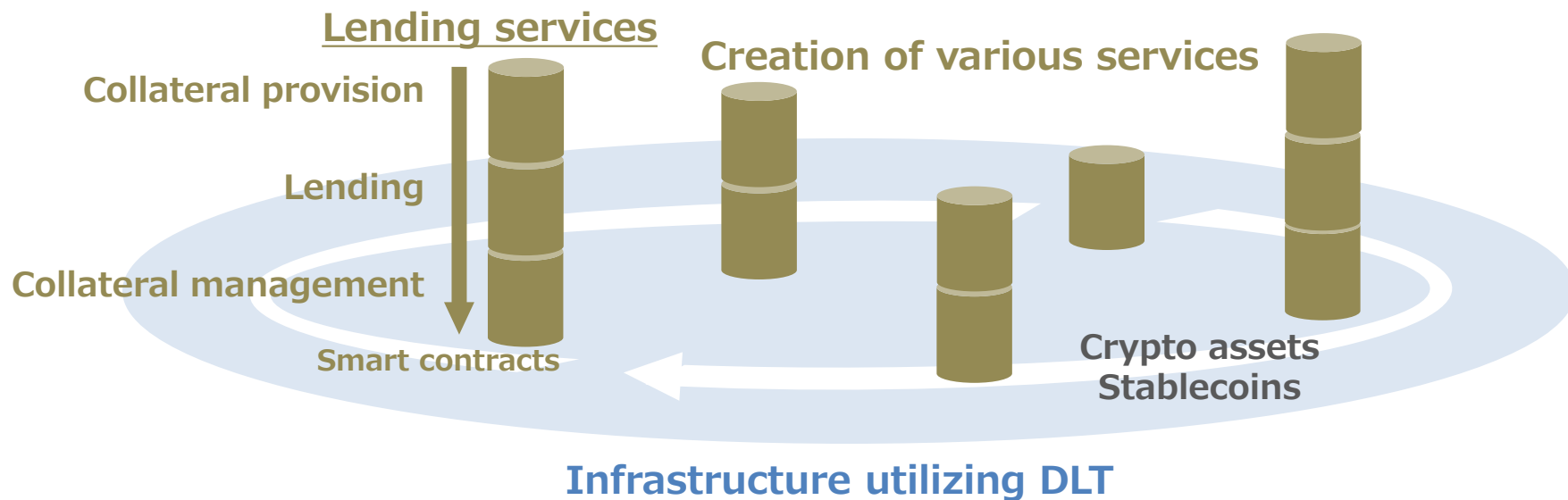
- Expansion of access to various goods and services
- Expansion of cashless payment options

Risks

- Possibility of monopolies and oligopolies
- Social costs of fragmentation in payments

The Advent of DLT

(Figure 6) Formation of a digital asset economy utilizing DLT



Benefits

- Potential for creating new services
- Potential for reducing usage costs
- Potential for improving accessibility

Risks

- Fragility of consumer and investor protection mechanisms
- Possible spillover of effects in the event of program malfunctions

Facets to Bear in Mind When Promoting the Digitization of Payment Methods

	Expectations	Challenges
Importance of ensuring interoperability	Expansion of cashless payment options	Fragmentation in payments
Understanding the significance of and issues surrounding DLT	Building a system for sharing ledgers among multiple parties Possibility of using smart contracts	Governance of system operations Risks of smart contracts
Importance of ensuring resilience of services	Expansion of access to various goods and services	Risks such as cyberattacks
Importance of international standardization	Smoother and more efficient cross-border payments	—

Benefits and Challenges of Conventional Payment Systems

■ Benefits

- Deposit currencies play a key role in the conventional payment system
- A notable characteristic of deposit currencies is their credit creation function, which makes it easier for banks to flexibly respond to large-value payments

■ Challenges

- In cross-border payments, bank payment services, in many cases, are costly and require a long time

Structure and Required Characteristics of Currency and Payment Systems

■ Ensuring the confidence of users

- Stability of the value of money
- General acceptability of payment instruments

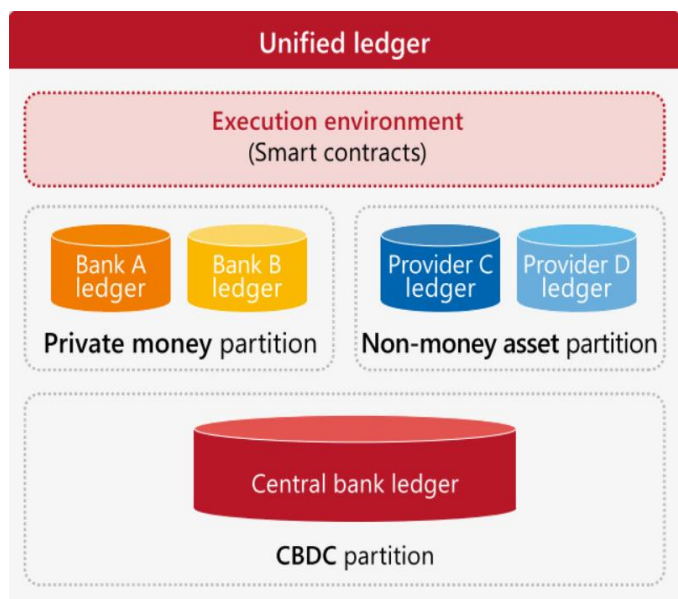
■ Division of roles between private money and central bank money

- Requirements for the robustness of the system and the level of alternative functions in accordance with social impact
- Competitive vs. non-competitive areas of payment services in a digital society

Initiatives by the Bank of Japan

■ Project Agorá

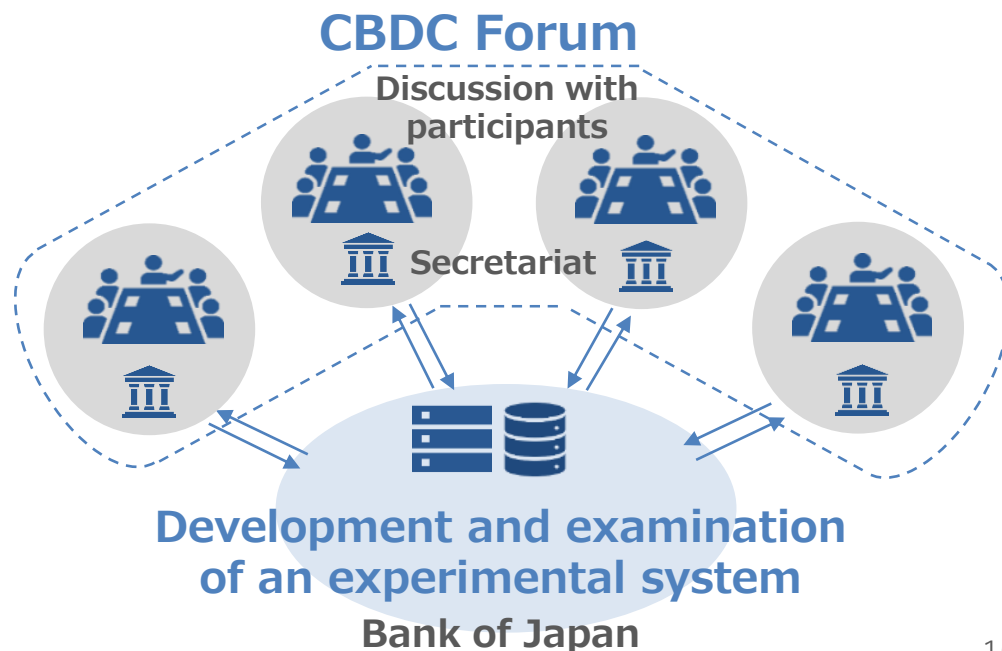
- An experimental project led by the BIS, aimed at improving cross-border payments
- Based on the concept of a “unified ledger,” the project will consider ways to achieve smooth cross-border payments while maintaining the two-tier structure of the currency system by placing central bank deposits and private bank deposits on the same ledger.



(Source) Annual Economic Report (BIS, 2023)

■ CBDC

- Since April 2023, the Bank has been proceeding with a pilot program
- The pilot program revolves around two pillars: “development and examination of an experimental system” with the aim of conducting technical evaluation and the “CBDC Forum” to leverage the skills and insights of private businesses.



Summary

■ Key points for considering the future of payments

➤ Understanding the nature of money:

Building a mechanism to sustainably ensure user confidence

➤ Understanding path dependence:

Harmonizing new technologies with existing institutional arrangements and practices

➤ Understanding the division of roles between the central bank and public sectors:

Payment systems as infrastructures in a digital society