### **Benefits of CBDC**

Reduce the cost of Issuing and Managing Cash

Increase Scale & Turnover of Digital Economy Increase Tax collection rate and Total tax revenue

Economic Zone Expansion

Financial Inclusion

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### **CBDC**

**Central Bank Digital Currency for Energizing the Economy** 

 $\sim$  Direct settlement anywhere  $\sim$ 







# Ultimate Solution for Retail and Wholesale CBDC

CBDC has generally been classified into (transactions Wholesale hetween financial institutions) and Retail (transactions between ordinary users), and it has been considered ideal for Wholesale to be "account-based" and for Retail to be "cash-based". The threat "man-in-the-middle of attacks (MITMA)" has prevented the realization of both Wholesale and Retail

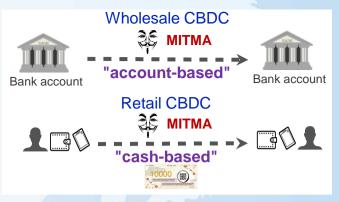
CBDC, as both involve sending some information from one to the other. Furthermore, in the retail sector, the biggest technical challenge is simply how to realize "digital cash," which has led to the failure of all of attempts to date. We have already perfected "complete cipher" technology based on "information-theoretic security," which not only prevents man-in-the-middle attacks, but has also succeeded in realizing "digital cash" for the first time in the world.

### The one and only in the world "Digital Cash"

	Cipher Cash	Cash	Conventional payment system	Distributed Ledgers (Blockchain)
Immediate Settlement	0	0	×	×
High Traffic Handling	0	0	0	×
Anonymity	$\circ$	0	×	Δ
Cost Performance	0	×	0	×
Prevention of inappropriate use	0	×	0	×
Network Fault Resistance	0	0	×	×
Works for everyone	0	<b>©</b>	0	Δ
Energy saving	0	Δ	Δ	×
No settlement fee	<b>©</b>	0	×	×
Introduction of Settlement Tax	0	×	Δ	Δ

(Figure) Strong point of Cipher Cash

 $\bigcirc$ =High,  $\bigcirc$ =Medium,  $\triangle$ =Low, X=Bad



Retail CBDCs are required to conduct high-volume, high-frequency settlements simultaneously and in real time, and to make this possible, all settlements must be able to be treated as independent events. In addition, it is not practical to record all the details of every small transaction in a central bank ledger.

#### **Overview of CBDC Challenge**

According to the Atlantic Council Research, 64 countries have initiated or piloted CBDC out of 130 countries which are in consideration in July 2023 in order to reduce the cost of issuing currency, promote financial inclusion, and strengthen monetary sovereignty (cross-border).

Developing countries are about to start their implementation of CBDC as soon as they identify the appropriate technology with **Complete Cipher**, as it is expected to improve economic turnover and increase total tax revenues.