

What are Global Stablecoins and CBDCs?

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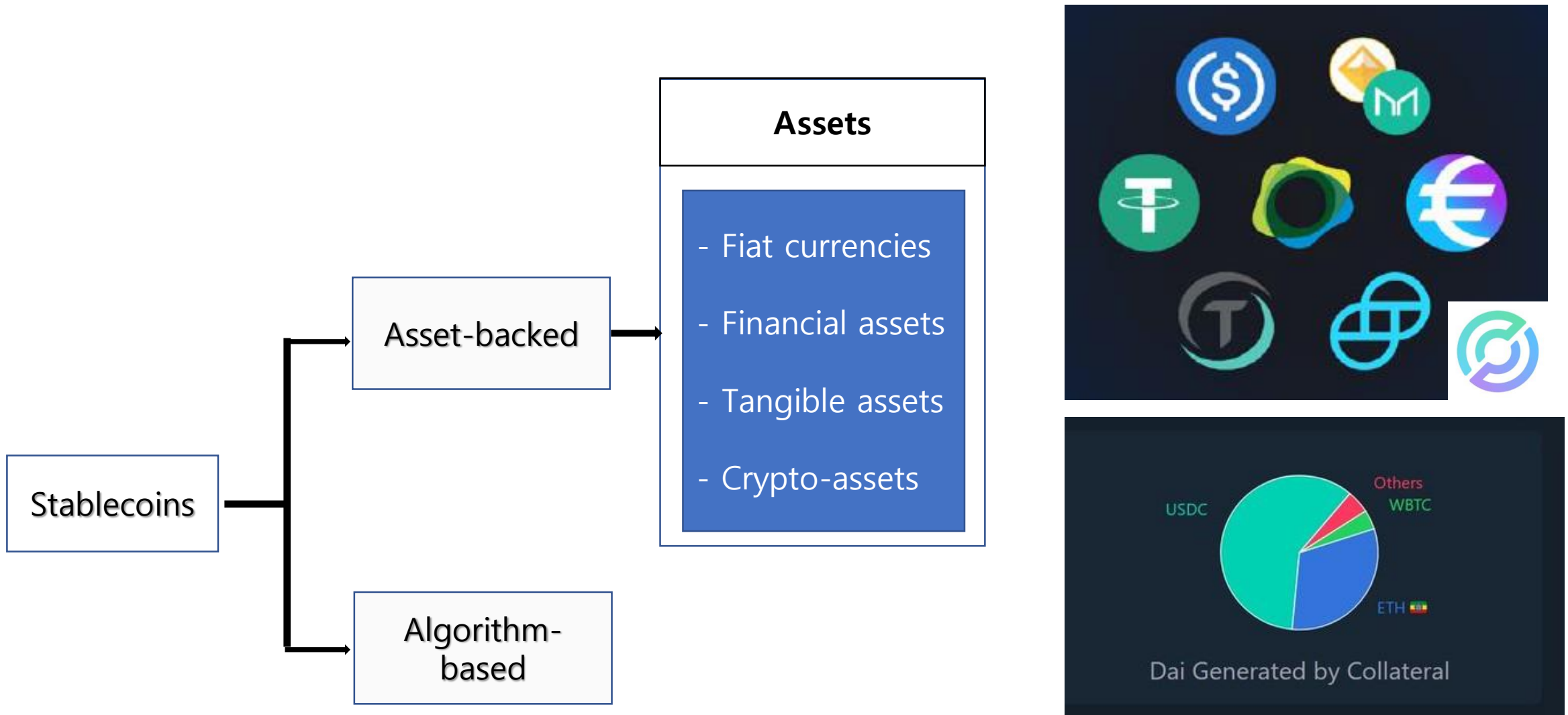
Bank of Korea

What are Stablecoins?

- Based on similar underlying technology of Bitcoin
- Solution to Bitcoin's limitations, by piggy-backing on valuable assets such as fiat currencies, commodities, heavily collateralized crypto-assets
- **However, not yet actively used beyond crypto-asset transactions**
- **Possibility of not full-fund redemption at par value**

What are Stablecoins? (cont.)

(Classification of Stablecoins)



What are Stablecoins? (cont.)

(Composition of Reserves: Example)



USDC Reserve Breakdown

	Total (\$bn)	Allocation (%)
Cash & Cash Equivalents ¹	13.4	61%
Yankee CDs ²	2.9	13%
US Treasuries ³	2.7	12%
Commercial Paper ⁴	2.0	9%
Corporate Bonds ⁵	1.1	5%
Municipal Bonds & US Agencies	0.1	0.2%
Total ⁶	\$22.2bn	100%

Definition, Case for Global Stablecoins

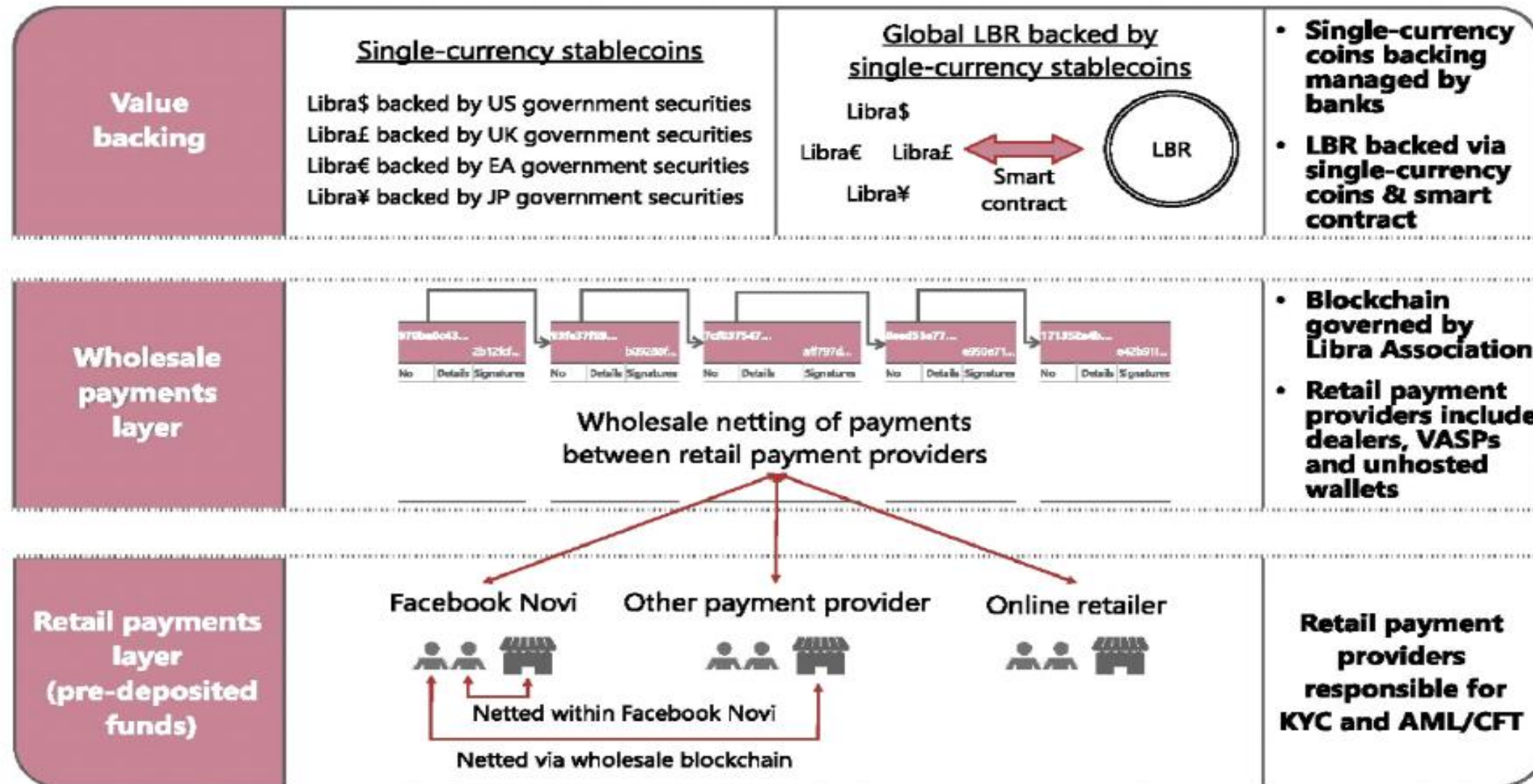
◆ Definition

- ✓ Global stablecoins can build on existing large, cross-border user bases to scale rapidly and achieve substantial (global) volume (G7 WG 2019, FSB 2020)

◆ Use case: Enhancing the ease of cross-border payments

- ✓ However, many concerns regarding consumer protection, threats to the host country in terms of monetary sovereignty

※ Architecture of Libra 2.0: A Global LBR and Single-Currency Stablecoin



Source: BIS, Nov. 2020

Legal Status and Regulations

◆ EU: E-Money Directive (Sept. 2009)

'Electronic Money' means electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions ... and which is accepted by a natural or legal person other than the electronic money issuer

(Article 11 Issuance and Redeemability)

- ✓ Member States shall ensure that electronic money issuers issue **electronic money at par value** on the receipt of funds
- ✓ Member States shall ensure that, upon request by the electronic money holder, electronic money issuers redeem, **at any moment and at par value**, the monetary value of the electronic money held

◆ EU: MiCA (Market in Crypto Assets)

- ✓ E-money token
- ✓ Asset-backed token
- ✓ Utility token

Legal Status and Regulations (cont.)

- ◆ **Joint Statement(Germany, France, Italy, Spain, the Netherlands) on Asset-Backed Crypto-Assets (Oct. 2020)**
 - Each unit of asset-backed crypto-asset created shall be **pledged at a ratio of 1:1 with fiat currency.**
 - Assets eligible for reserves shall be **limited to deposits, deposited in a credit institution** approved by the EU, or **for a fraction of highly liquid assets**, subject to appropriate safeguards put in place.
 - Assets eligible for reserves shall **be denominated in euros or a currency of a member state of the EU, be held separately from other reserves**, and be nonconvertible to avoid exchange rate risk.
 - For asset-backed crypto-assets that are intended to be used widely for payment purposes, users shall have **a direct claim on the reserve and the issuer so that the user can redeem, at any moment and at par value, the asset-backed crypto-asset into legal tender.**
 - All entities operating as part of an asset-backed crypto-asset scheme in the EU shall be **registered in the EU** before starting any activity.

Legal Status and Regulations (cont.)

◆ U.S.: No Federal-Level Regulations

- **NYDFS Trust Company Model (i.e., Paxos, Gemini)**

- › NYDFS created an explicit framework for regulating stablecoin issuers
- › A would-be stablecoin issuer first secures a **limited-purpose trust company**
- › Once chartered as a trust, the issuer seeks additional approval for issuing stablecoins

- **Piggyback Off State-Chartered Trust (i.e., TrueUSD)**

- › Nevada authority has not explicitly acknowledged that trusts may (or may not) engage with stablecoin issuers
- › Under the obscure state's legal position, stablecoin issuers are piggybacking on a Nevada state-chartered trust to issue stablecoins

- **Money Transmitter Licenses (i.e., USDC)**

- › Issuer gets money transmitter license from each and every state for money transmittal business

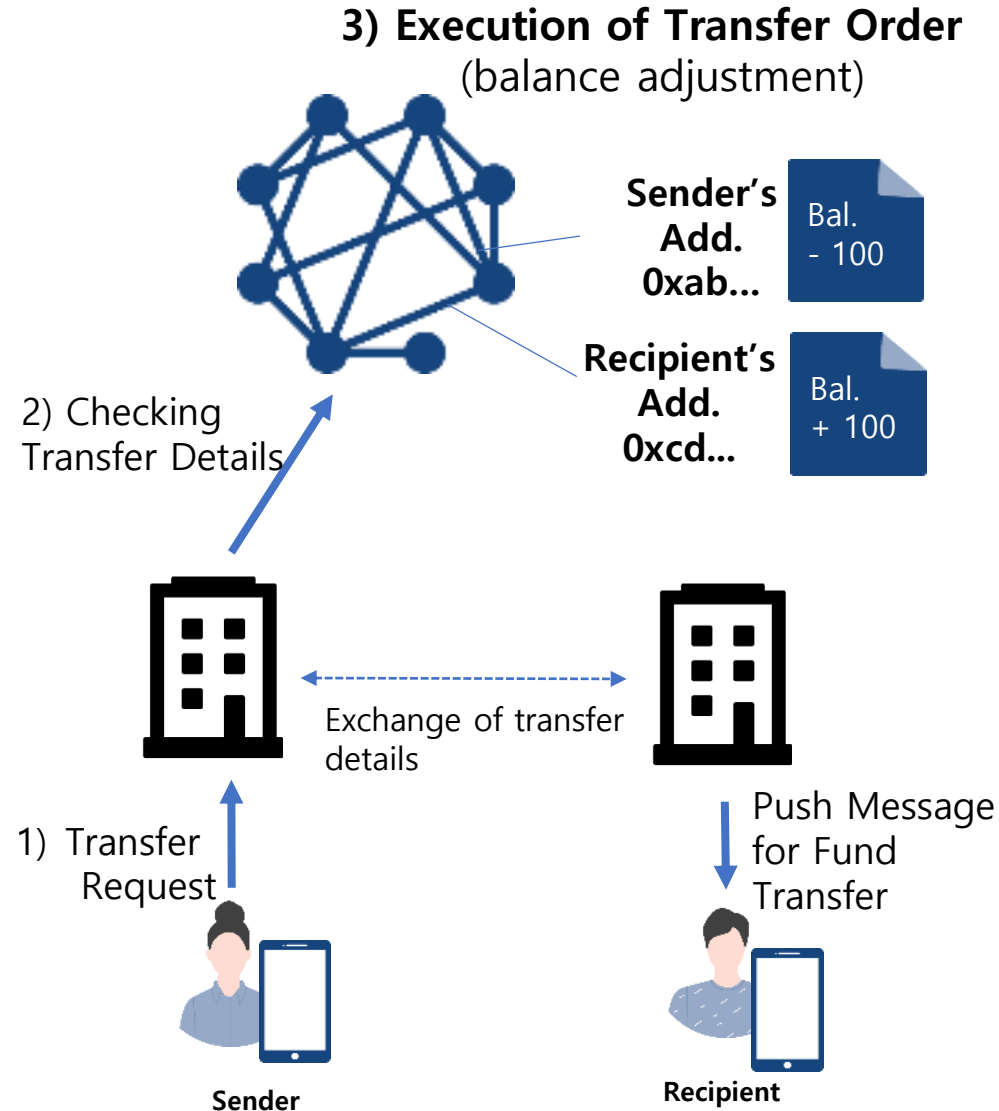
- **Offshore Model (i.e., Tether)**

Central Bank Digital Currency

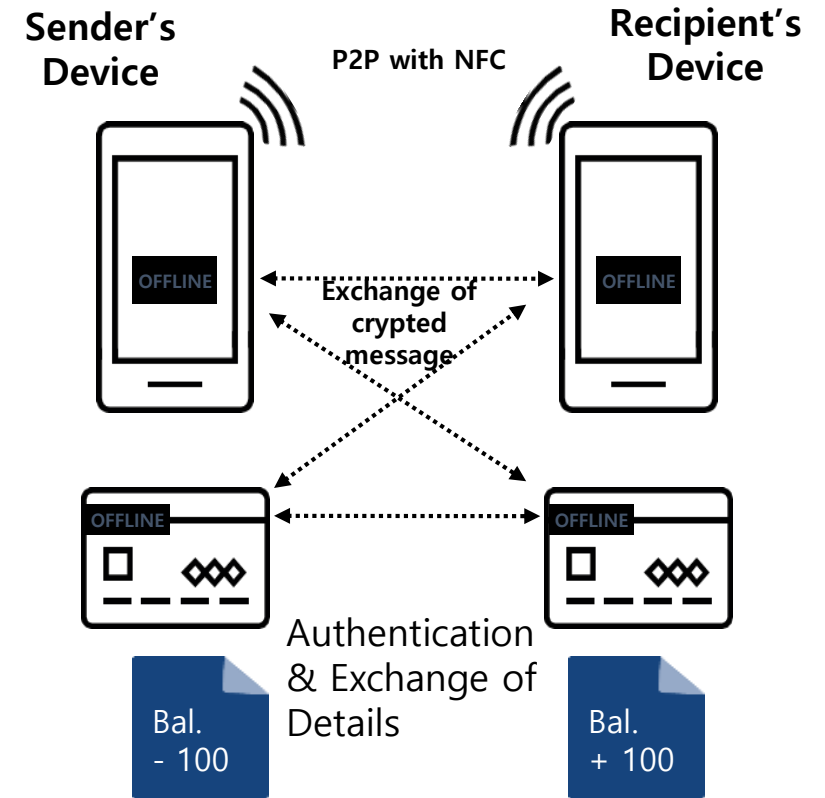
- ◆ CBDCs are potentially **a new form** of digital central bank money that can be distinguished from reserves or settlement balances held by commercial banks at central banks. (BIS, March 2018)
- ◆ A digital representation of a sovereign currency issued by **and** as a liability of a jurisdiction's central bank or other monetary authority
(“A Survey of Research on Central Bank Digital Currency,” IMF)

✂ Online and Offline CBDC

▪ Online: CBDC Transaction

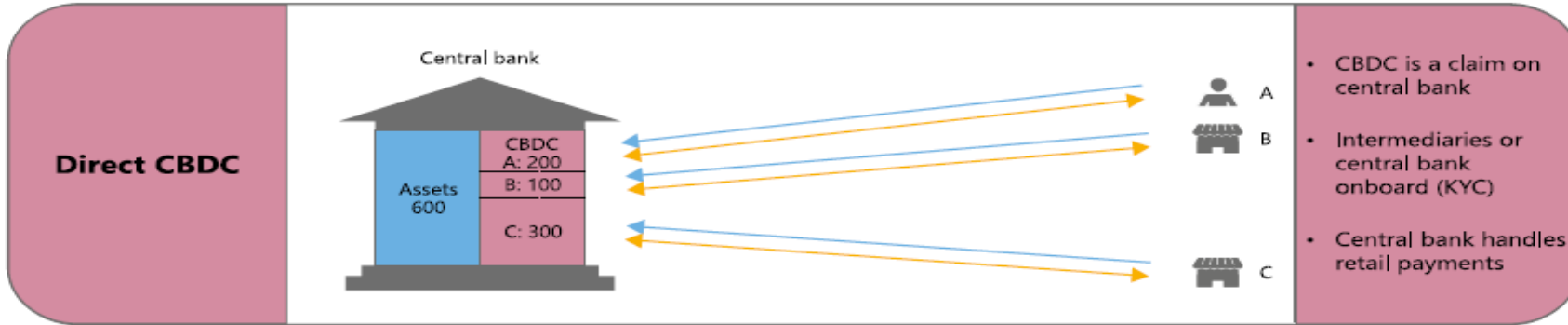


▪ Offline: CBDC Transaction

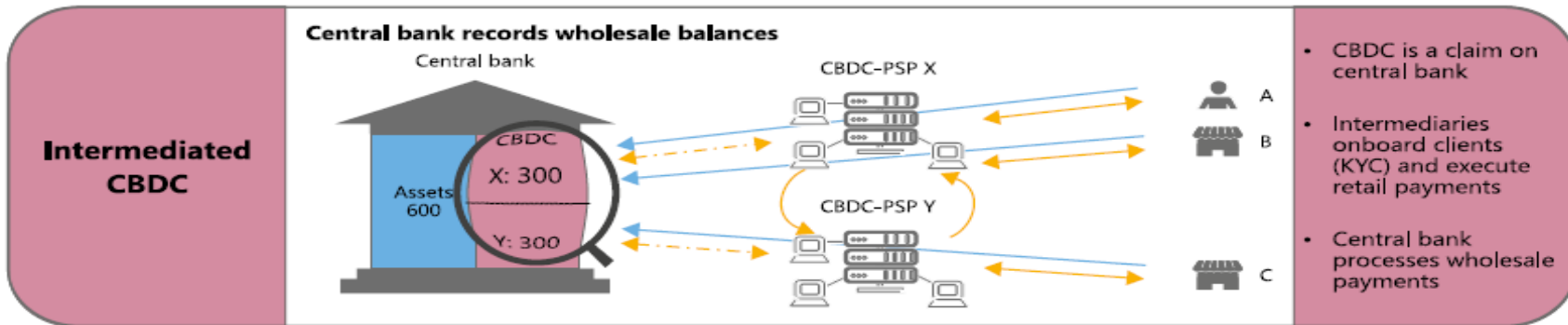
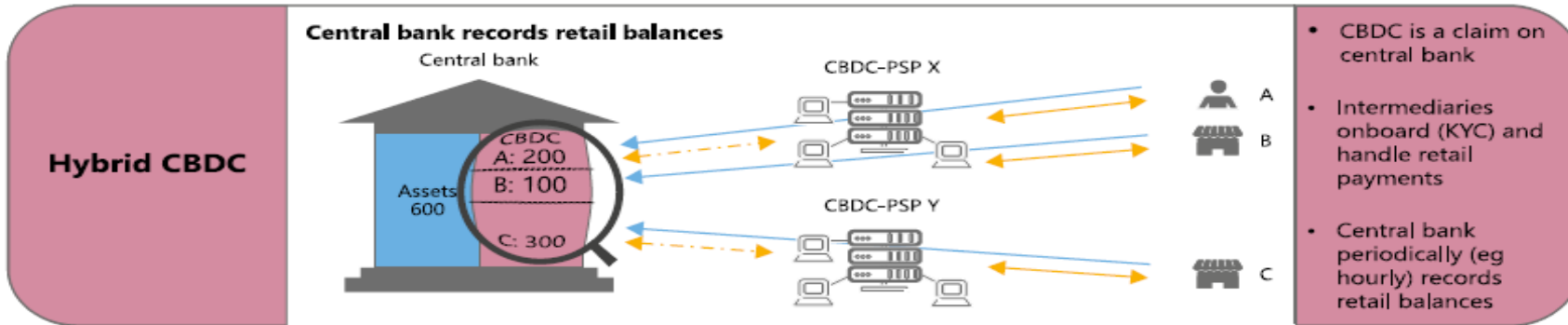


CBDC Architecture

Single-tier retail CBDC



Two-tier retail CBDC



← Legal claim

Communications during payment: ↔ Real-time

↔ Deferred



Person or pseudonym

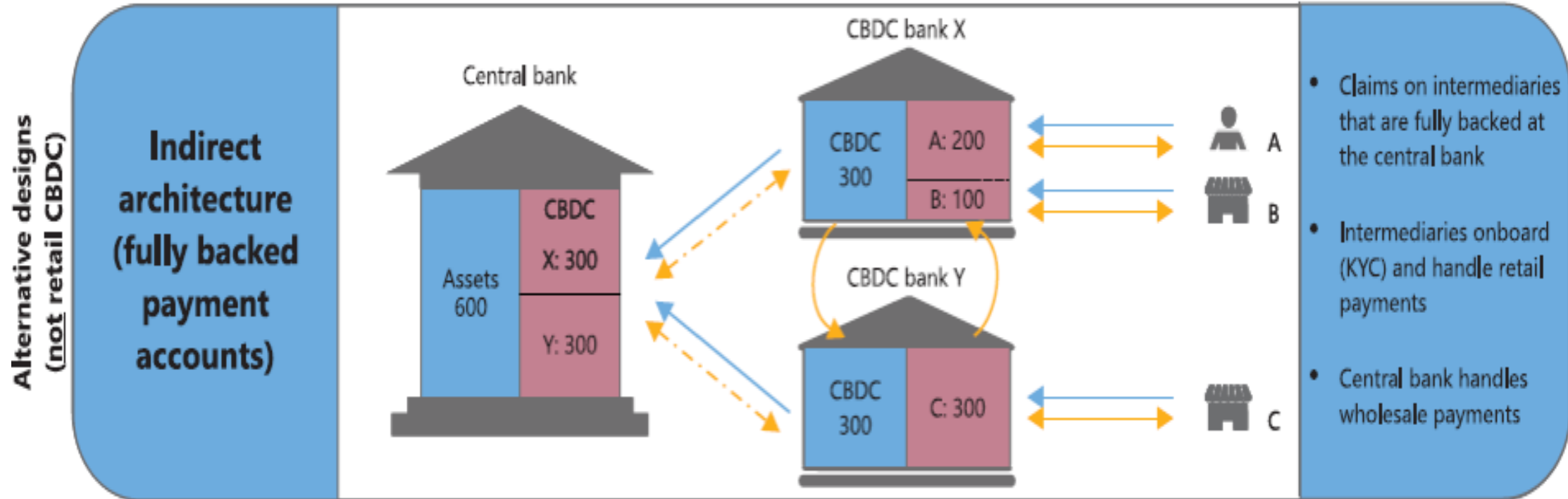


CBDC payment service provider (PSP)



Merchant

CBDC-Backed E-money(synthetic CBDC)



← Legal claim

Communications during payment: ↔ Real-time ↔ Deferred

Person



CBDC payment service provider (PSP)



Merchant

CBDC-Backed E-money(synthetic CBDC)(cont.)

- ◆ The indirect model is equivalent to “synthetic CBDCs” or “**CBDC-backed E-money**” or “CBDC-backed E-money token” by EU MiCA
- ◆ Not much difference between CBDC-backed e-money and full-reserve banks
 - ✓ For full-reserve banking model, the central bank has to decide whether to allow entities such as fintech companies to open a master-account with the central bank

Thank you