

Legal tender and central-bank issued digital currency

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Overview

- Some initiatives
- Fields of application for base money issued on DLT
- Impacts on the banking system
- Base money's role as legal tender
- Sovereign money initiative

Some Initiatives

- Ecuador
 - dinero electrónico: 02/2015, up and running, small amounts, centralised network
- Canada
 - MintChip: cancelled in 04/2014, digital representation of the Royal Mint's coins, on smart cards
 - Central Bank of Canada: 06/2016, project Jasper, CAD-coins for interbank purposes
<http://www.bankofcanada.ca/wp-content/uploads/2017/05/fsr-june-2017-chapman.pdf>
- Singapore:
 - 03/2017, proof-of-concept trial, Singapore dollar on DLT, for interbank purposes
- China
 - 12/2016, trial completed, DLT-currency for transactions and settlements of bank acceptance bills
 - 09/2016, considerations re issuance of digital legal tender by banks on behalf of PBoC

Some Initiatives

- Bank of England
 - 2015, One Bank Research Agenda; pilot projects
 - 2016, Barrdear/Michael on macroeconomics of CBDC; fintech accelerator
- Netherlands
 - 2015, DNBcoin prototype 1 and 2, completed, for internal test purposes (focused on the blockchain)
 - 2016, DNBcoin prototype 3, announced, for settlement in financial market infrastructures
- Sweden
 - 11/2016, e

Fields of application for base money issued on DLT

- **CBDC for interbank purposes** (payment, clearing & settlement)

Bank of Canada: CAD-Coin (cf. appendix I)

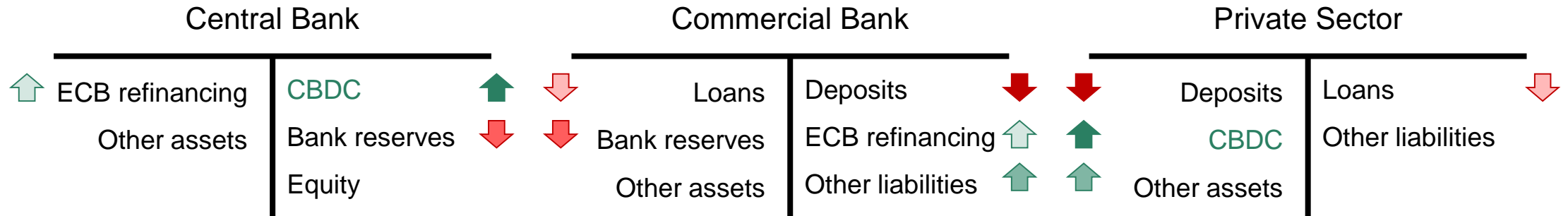
USB, DB, others: USC (utility settlement coin)

...

- **CBDC for non-financial households**

– ...

Impact on the banking system



Banks might ...

1. reduce their excess reserves with the Central Bank;
2. limit their lending;
3. attract alternative funding;
4. turn to the Central bank to cover their funding needs.

} See p. 7 & 8

Based loosely on: J. Smets,
Nationale Bank van België,
SUERF, Belgium, 9.12.2016

Impact on the banking system

Central Bank	
ECB refinancing	CBDC
Other assets	Bank reserves
	Equity

Commercial Bank	
Loans	Deposits
Bank reserves	ECB refinancing
Other assets	Other liabilities

Other Sectors	
Deposits	Loans
CBDC	Other liabilities
Other assets	

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Other Sectors	
	Loans

Impact on the banking system

Central Bank		Commercial Bank	
ECB refinancing	CBDC		Deposits
Other assets	Bank reserves		ECB refinancing
	Equity		Other liabilities

Design of CBDC

Limits (credit, debit, transfer)

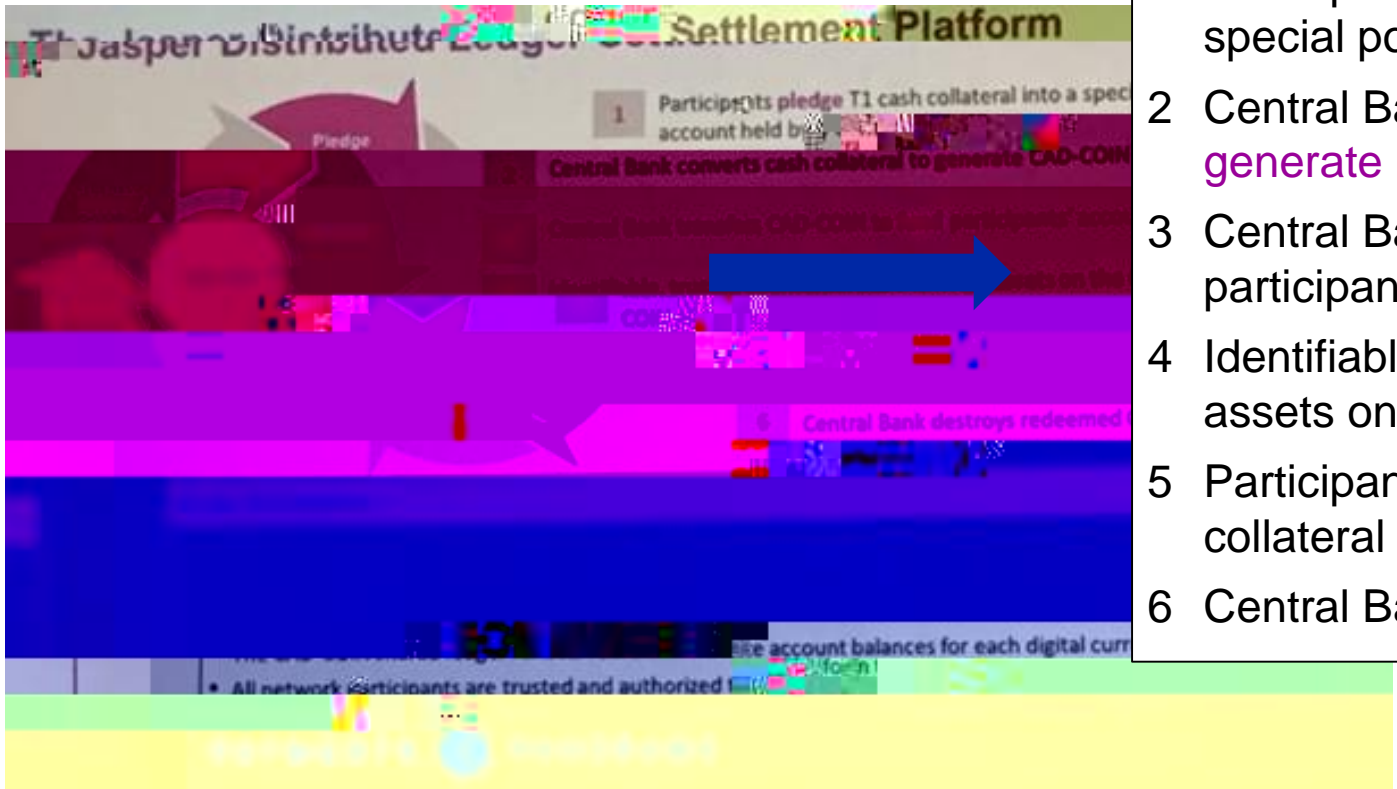
- E.g. Switzerland:
 - CB's task to ensure the supply and distribution of cash (art. 5 para. 2 let. b NBA)...
 - ... commensurate with the demand for payment transactions (art. 7 para. 1 CPIA).
- Should CB issue cash in order to meet demand for saving purposes too?

Interest

- Could turn a means of payment into a monetary policy tool
- Goes against the joint objective of price stability and nominalism: confidence in a stable currency



Appendix I



- 1 Participants **pledge** T1 cash collateral into a special pooled account held by Central Bank
- 2 Central Bank converts cash collateral to **generate** CAD-COIN
- 3 Central Bank transfers CAD-COIN to **fund** participant's accounts
- 4 Identifiable, trusted counterparties **exchange** assets on the CAD-COIN platform
- 5 Participants **redeem** CAD-COIN for T1 cash collateral
- 6 Central Bank **destroys**

Source: G. Johnson (Bank of Canada)/J. Pilbauer (Payments Canada)/C. Burke (Royal Bank of Canada) via Twitter, K. Klempner, 15.06.2016, <https://t.co/eVAwLJdzhv>