



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

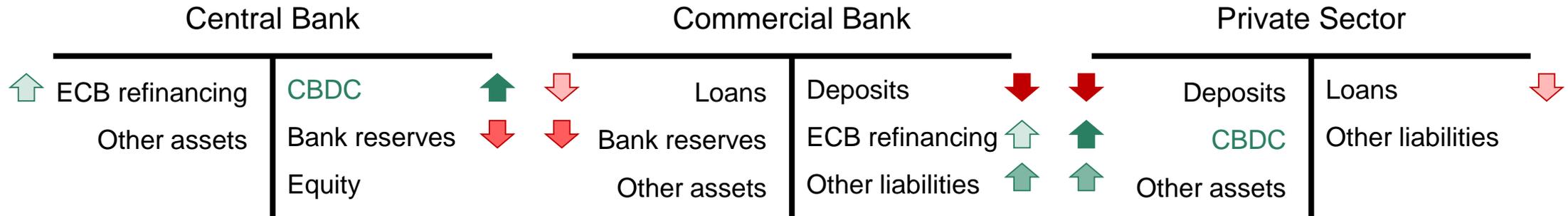
- Bank of England
 - 2015, One Bank Research Agenda; pilot projects
 - 2016, Barrdear/Michael on macroeconomics of CBDC; fintech accelerator
- Netherlands
 - 2015, DNBcoin prototype 1 and 2, completed, for internal test purposes (focused on the blockchain)
 - 2016, DNBcoin prototype 3, announced, for settlement in financial market infrastructures
- Sweden
 - 11/2016, e-Krona
 - 03/2017, project plan; possible start of implementation is not expected before 2019
- ...



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 ...

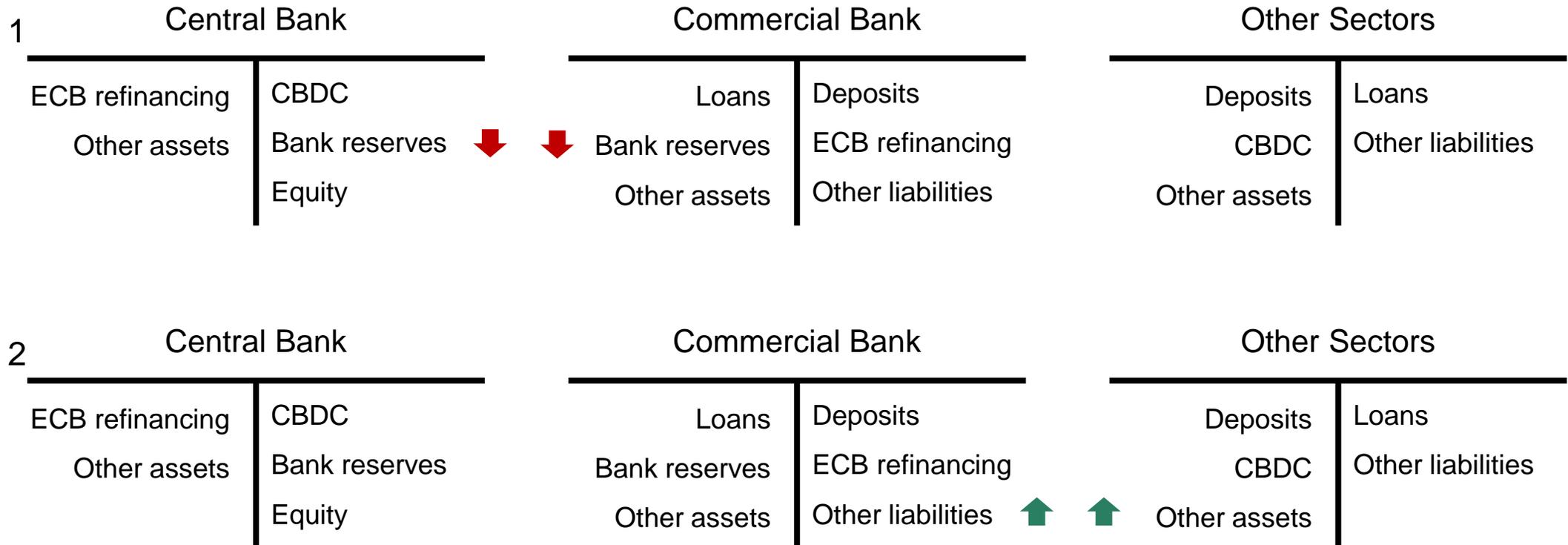
1. reduce their excess reserves with the Central Bank;
2. limit their lending;
3. attract alternative funding;
4. turn to the Central bank to cover their funding needs.

} See p. 7 & 8

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

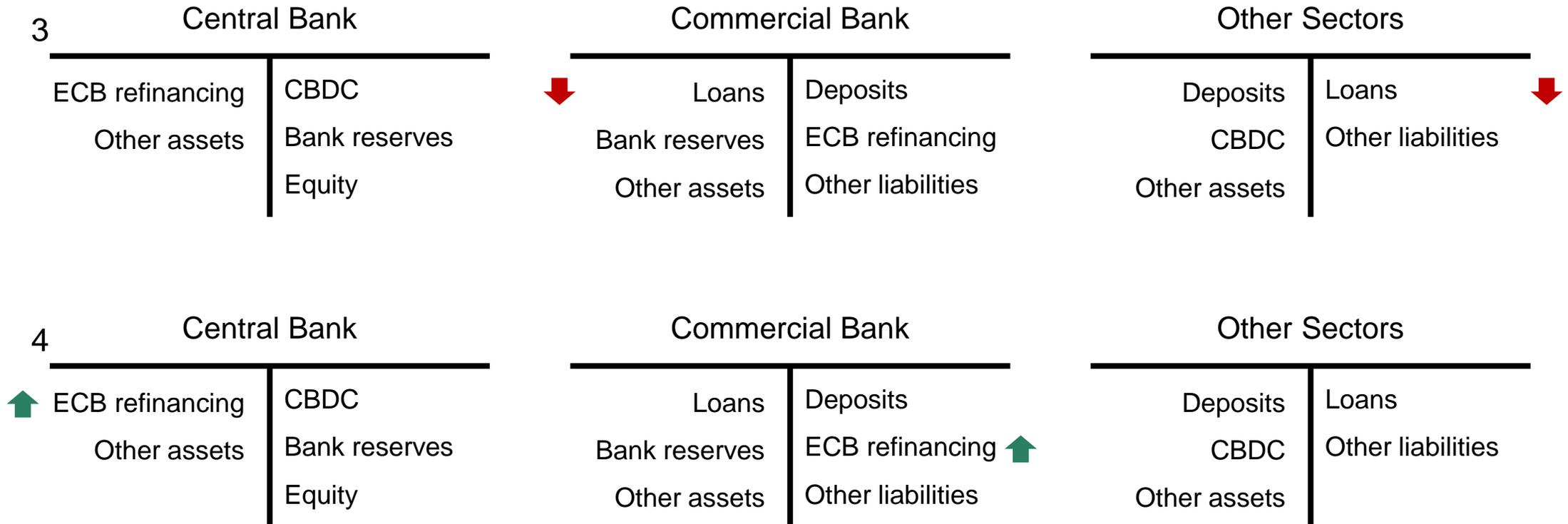


Impact on the banking system





Impact on the banking system





Base money's role as legal tender

- **Market forces:** private sector companies
 - E.g. Sweden:
 - 2005: handling of cash in circulation privatised
 - 2016: Riksbank's proposal to impose legal requirement for the banks' cash service; e-Krona
 - Limitations on payments in notes and coins, established by **States**
 - for public reasons
 - dilution of an essential privilege of legal tender (acceptance by default)
- CBDC as a potential surrogate for anonymous cash?



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



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Faculty of Law

Thank you.

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** redeemed CAD-COIN

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>