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BANK OF THAILAND

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Retail CBDCs from the Perspectives of Monetary Policy And Financial Stability

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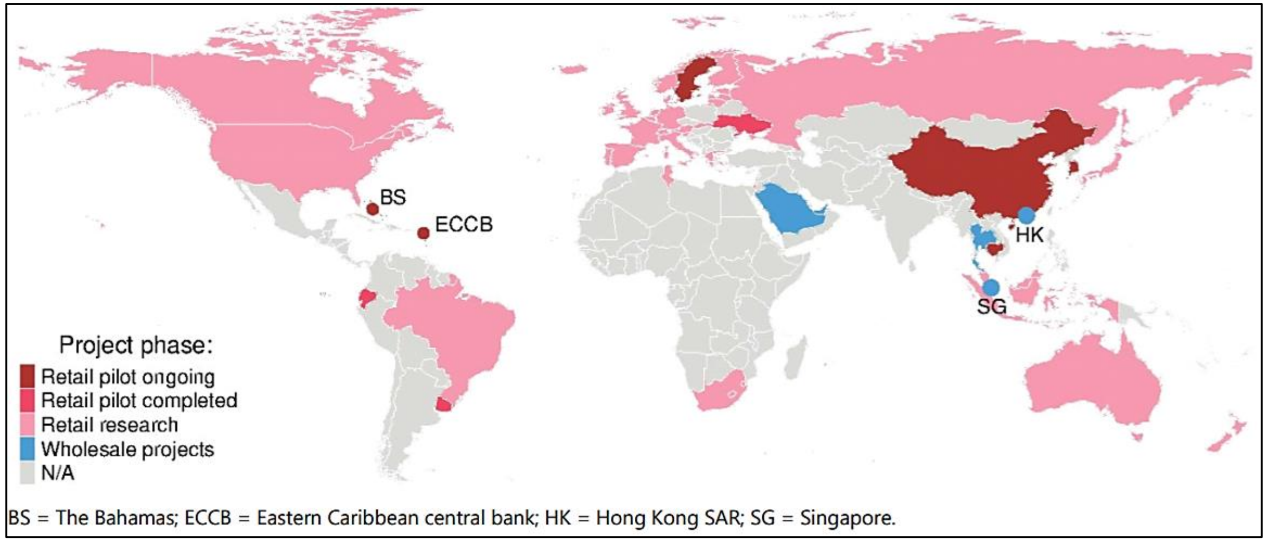
Many central banks around the world are exploring retail CBDCs.

CBDC development status



Source: Auer et al. (BIS, 2020)

"...e-krona could rationalize payments from agencies and **make them less dependent on commercial agents"**

Riksbank e-krona report, 2018

"top-level design' of DCEP had already been completed... initial pilot projects would take place in Chengdu, Shenzhen, Suzhou, and Xiong'an"

Yi Gang speech, 2019

"...building, as a **contingency**, the capability to issue a cash-like central bank digital currency (CBDC) to the public, **should the need ever arise**."

Bank of Canada, Feb 2020

..."exploring the optimal design of a CBDC so that we will be **well prepared** should we ever take a policy decision to issue a digital currency."

Yves Mersch, May 2020

"An impetus for the Fed's efforts is the possibility of widespread global adoption of **Libra**, which can threaten the Fed's **control of monetary policy**... **DCEP** threatens the **primacy of the dollar** as the international unit of account and means of payment."

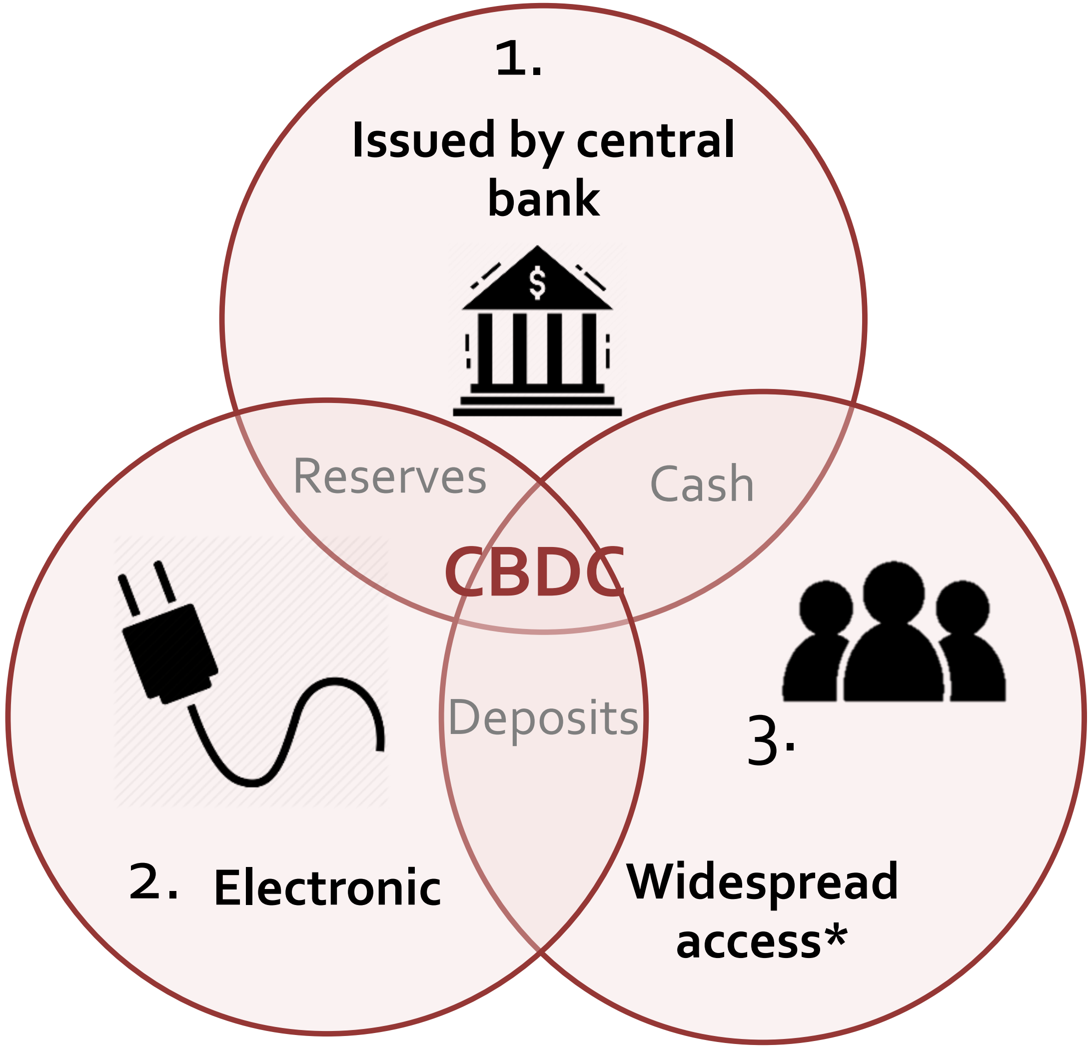
Brainard speech, Aug 2020

What is a retail CBDC?

Retail CBDC is a **new** form of money.

Conceptually, it is:

- Electronic cash
- Expanded access to central bank reserves
- Deposits issued by central bank



Why would central banks be interested in issuing retail CBDCs?

The rise of new monies poses threat to central bank **monetary sovereignty.**

Alternative monies

Cryptocurrencies & stablecoins

Libra

DCEP

Local money

Deposits

E-money

Cash

If central bank chooses to do nothing…

These monies may dominate domestic transactions

Reduced central bank control over the economy

Harder to monitor economic conditions

Retail CBDCs could help to **reduce** this threat.

Alternative monies

Cryptocurrencies & stablecoins | Libra | DCEP

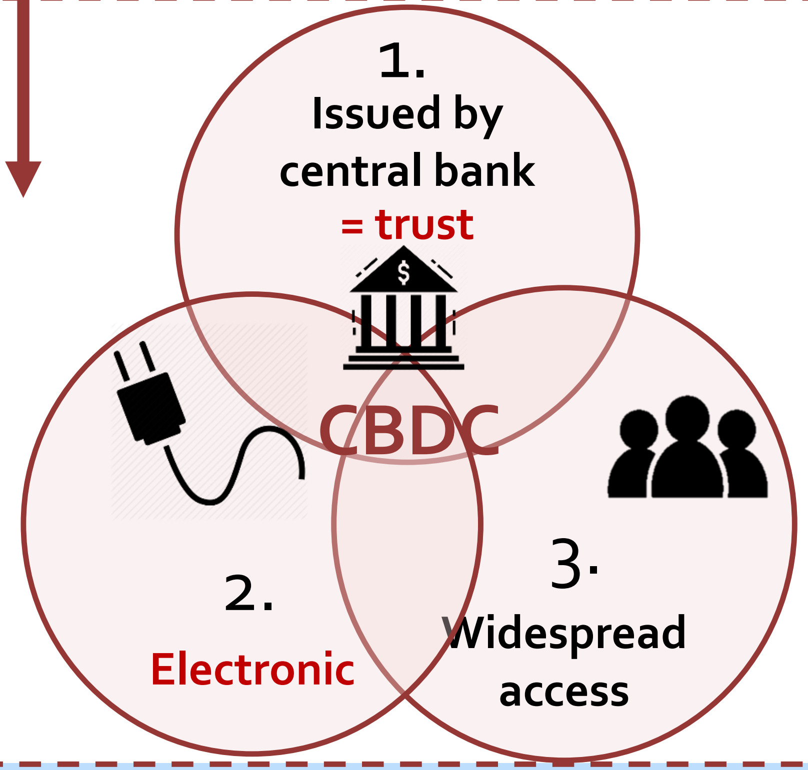
Local money

Retail CBDC | Deposits | E-money | Cash

Retail CBDC

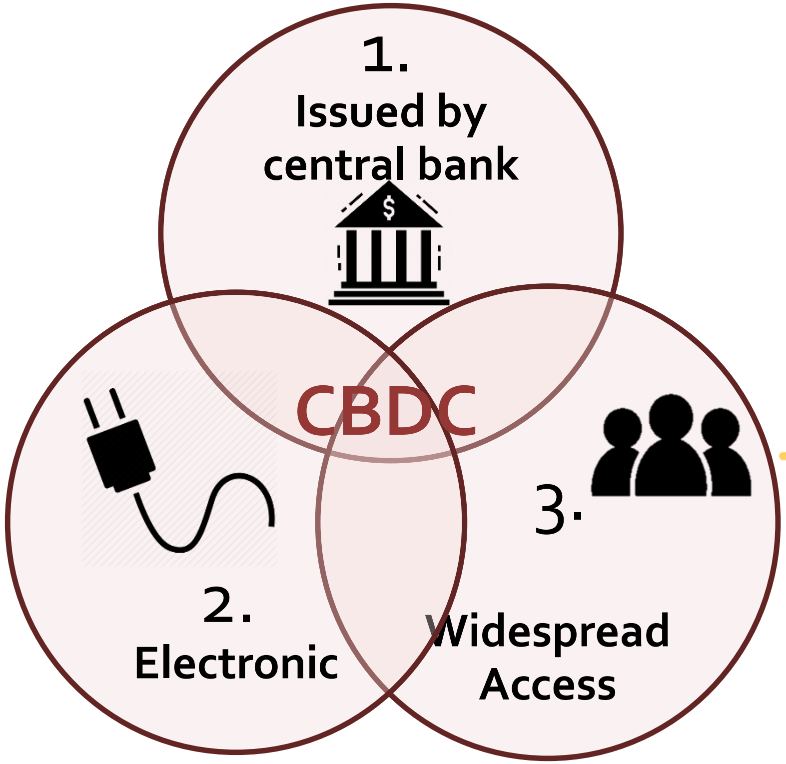
advantages

- **Legal tender**
- **Central bank support**
  - Stable value
  - Money protection
- Can be connected with **new technology** (e.g. smart contracts)



Further, retail CBDCs' unique characteristics allow **rethinking of monetary policy…**

Central bank can **control** this new money
(CBDC part of narrow money not broad money)



Money can be '**programmed**', e.g. set interest rates and money amounts, to achieve **desired outcomes**

Passthrough is **direct** to money holders and not clogged at intermediaries.

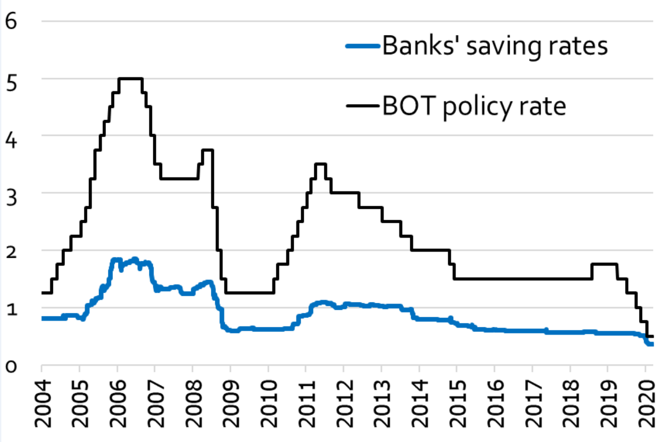
Source: diagram inspired by Bjerg (2017)

including the **opportunities** to…

…boost **transmission** through intermediaries…

1

Improve policy rate passthrough to banking sector



2

Eliminate zero lower bound

…and create **new** policy tools.

3

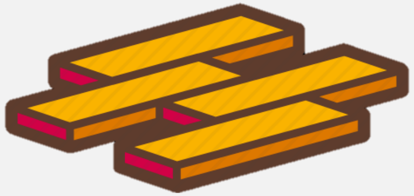
CBDC-funded direct asset purchases

4

Targeted transfers of CBDCs to retail recipients

1 Interest-bearing CBDCs could improve **monetary policy passthrough** to banking sector.

1. CBDC rate is **floor on savings** due to its risk-free nature.



2. Deposit rates must **compete** and match CBDC rate hikes.

3. Banks may pass higher **costs of funds** to borrowers.

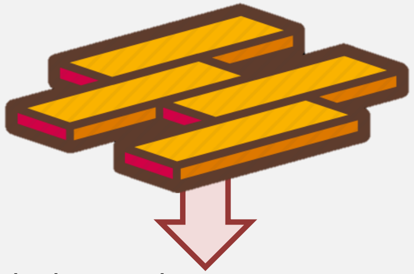
Riksbank (2018), Meaning et al. (Bank of England, 2018), Davoodalhosseini et al. (Bank of Canada, 2020) , De Nederlandsche Bank (2020)

- **Asymmetry of floor** works best during rate hikes
- Passthrough to **lending** may be constrained by other factors including banks' **business model** and **credit costs**

2 Retail CBDCs may also enable **negative** policy rates.

1. **Limit the convertibility** of deposits into cash or **restrict cash.**

2. Offer CBDCs as **cash alternative**. Make CBDC rate negative, driving **lower bound below zero.** Retail bank deposit rates *can* become negative.



Rogoff (2017), Bordo and Levin (2017), Davoodalhosseini et al. (Bank of Canada, 2020) , De Nederlandsche Bank (2020)

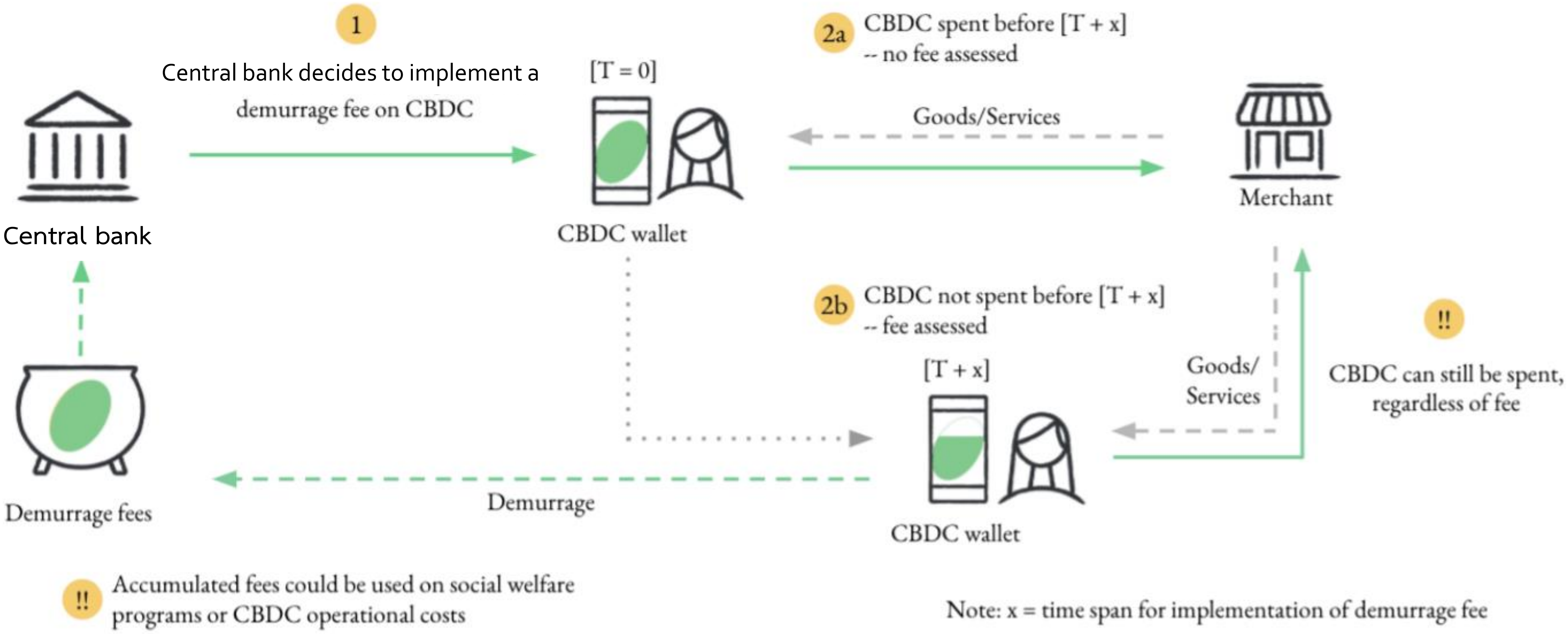
Unclear, limited benefits

- Negative **floor does not guarantee** passthrough to depositors.

Multiple possible side-effects

- **Resistance** to CBDCs and **substitution** for other media of exchange
- Various groups in society still **need cash**
- Punish retail **savers** and incentivize **risk-taking**

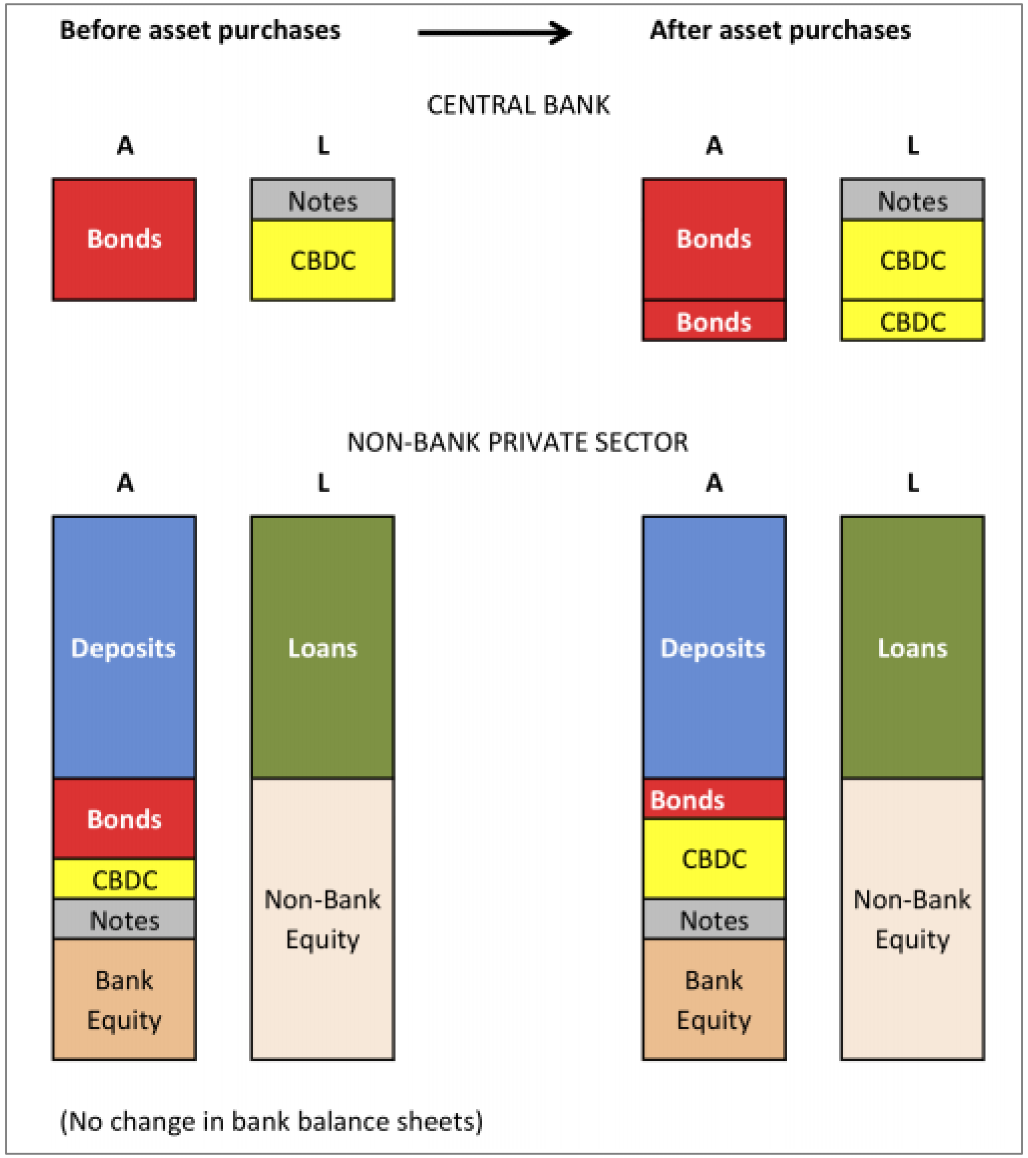
Example of negative rate ("fees")



3 Further, CBDCs allow for targeted asset purchase…

Direct asset purchase from the non-bank private sector.

Barrdear and Kumhof (Bank of England, 2016)



Benefit

- **More targeted** than conventional QE: central bank chooses to buy from specific sector, not just banks.

Considerations

- Types of **eligible assets**
- Central bank's **risk tolerance** and impact on balance sheet.

Source: Meaning et al. (Bank of England, 2018)

4 …and facilitate ‘targeted transfers’

A new channel for government-funded transfers to be **injected** directly to individuals’ wallets

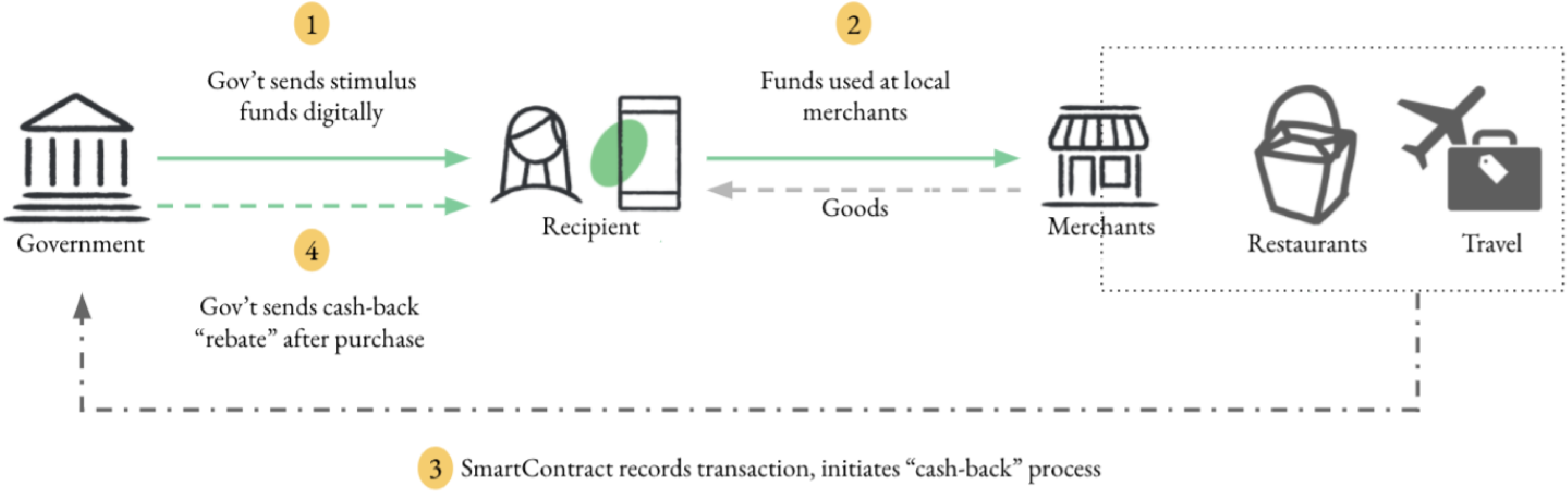
Benefits

- **Bypass intermediaries**
- Conduct transfers in a **targeted** manner
- Transfers can be **programmed** or conditioned to ensure desired outcomes

Challenges

- Could blur the line between **fiscal and monetary** policies.

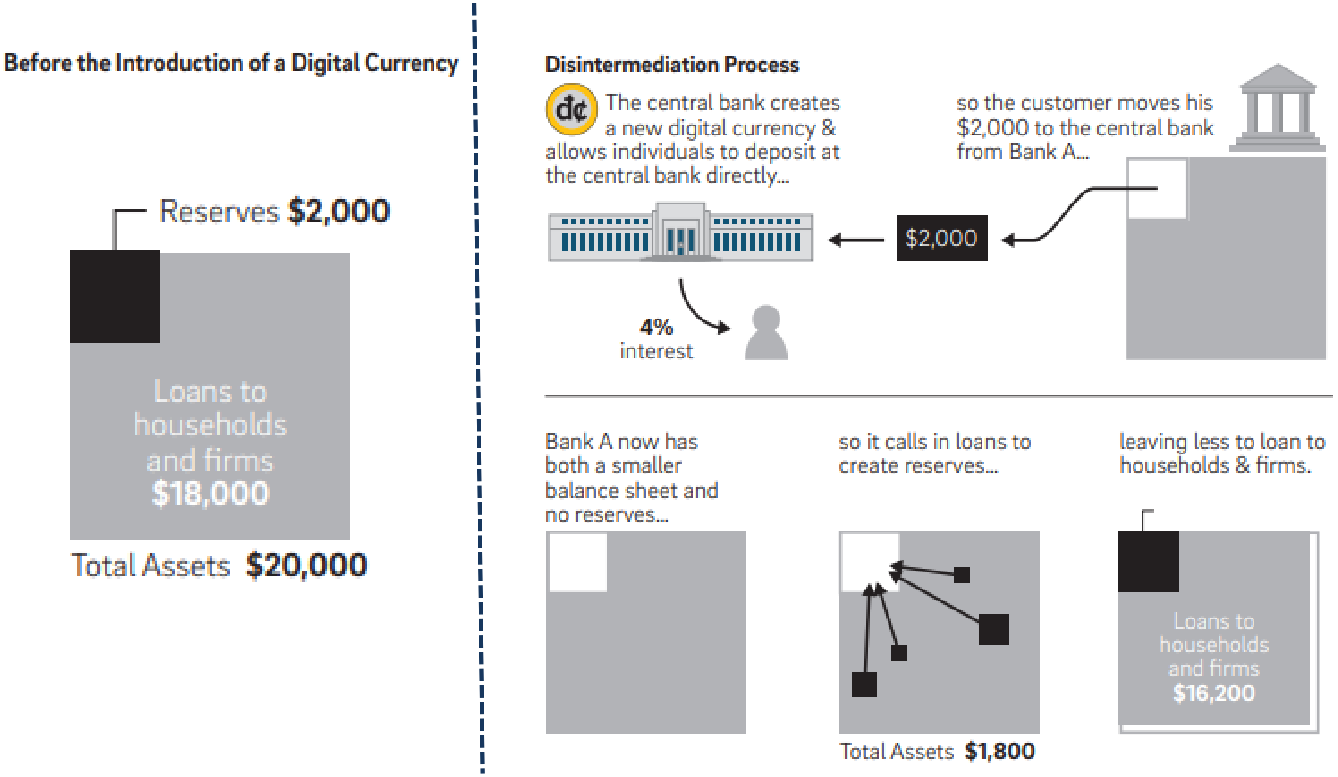
Example of targeted transfers



What are the risks associated with issuing retail CBDCs?

Retail CBDCs may encourage (1) structural bank disintermediation and (2) bank runs during crisis times.

In normal times, interest-bearing CBDCs may compete with deposits, absorbing liquidity from banks.



Source: Central Bank Digital Currency: Is It a Good Idea? (Philadelphia Fed, 2020)

Potential consequences

Costs of deposit funding for banks

Reliance on non-deposit funding which contains higher risks

Banks **liquidate assets** to exchange for CBDC.

In crisis times, depositors may switch to CBDCs *en masse* due to its relative safety.

However, actual disintermediation risks are low and there are ways to mitigate the risks.

Low risk

- CBDCs may substitute only **some products** of banks
- Bank deposits have **other benefits**, e.g. bundling with lending
- Banks may be **resilient** to some negative impacts (Garcia et al., Bank of Canada, 2020)

Way #1: Distribute liquidity back to commercial banks

Commercial banks

↓ Withdrawal

Households

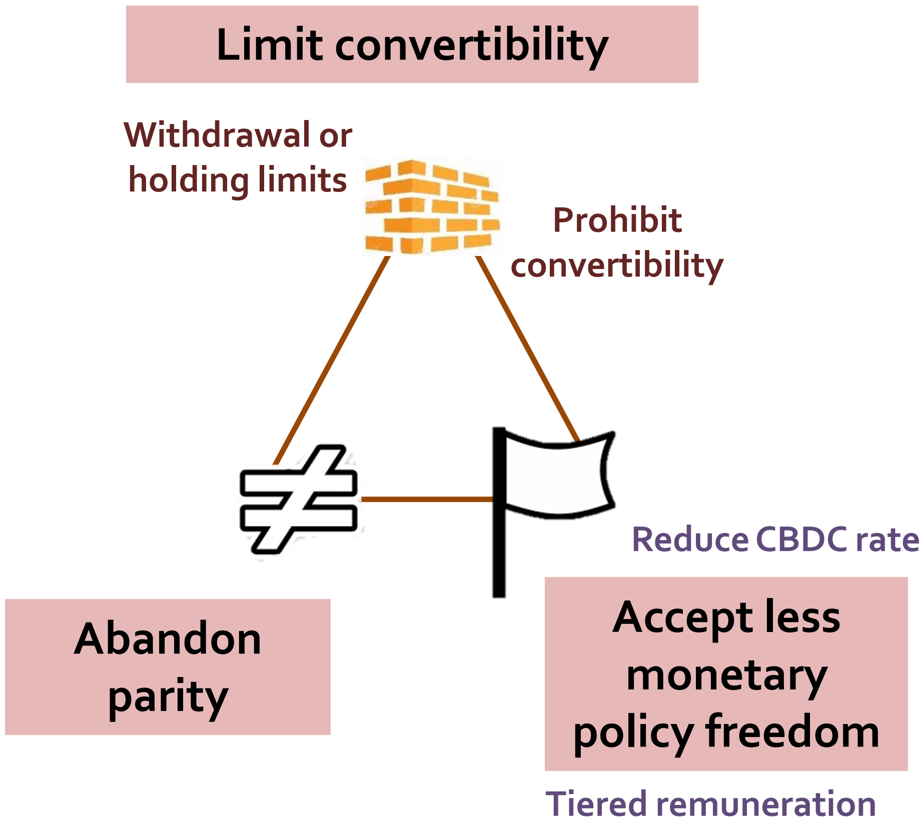
↓ Deposit

Central bank

Distribute back

Source: Brunnermeier and Niepelt (2019)

Way #2: Make CBDCs less attractive



KEY TAKEAWAY

✓ Retail CBDC is a **new form of money** and offers opportunity for **rethinking monetary policy.**

ISSUES FOR DISCUSSION

1. How can CBDCs best enhance **monetary policy** and **financial stability**?
2. What are the **costs and risks** to monetary policy and financial stability of implementing CBDCs?
3. How may the costs and risks be **mitigated**?