

The economics of CBDC: information and privacy

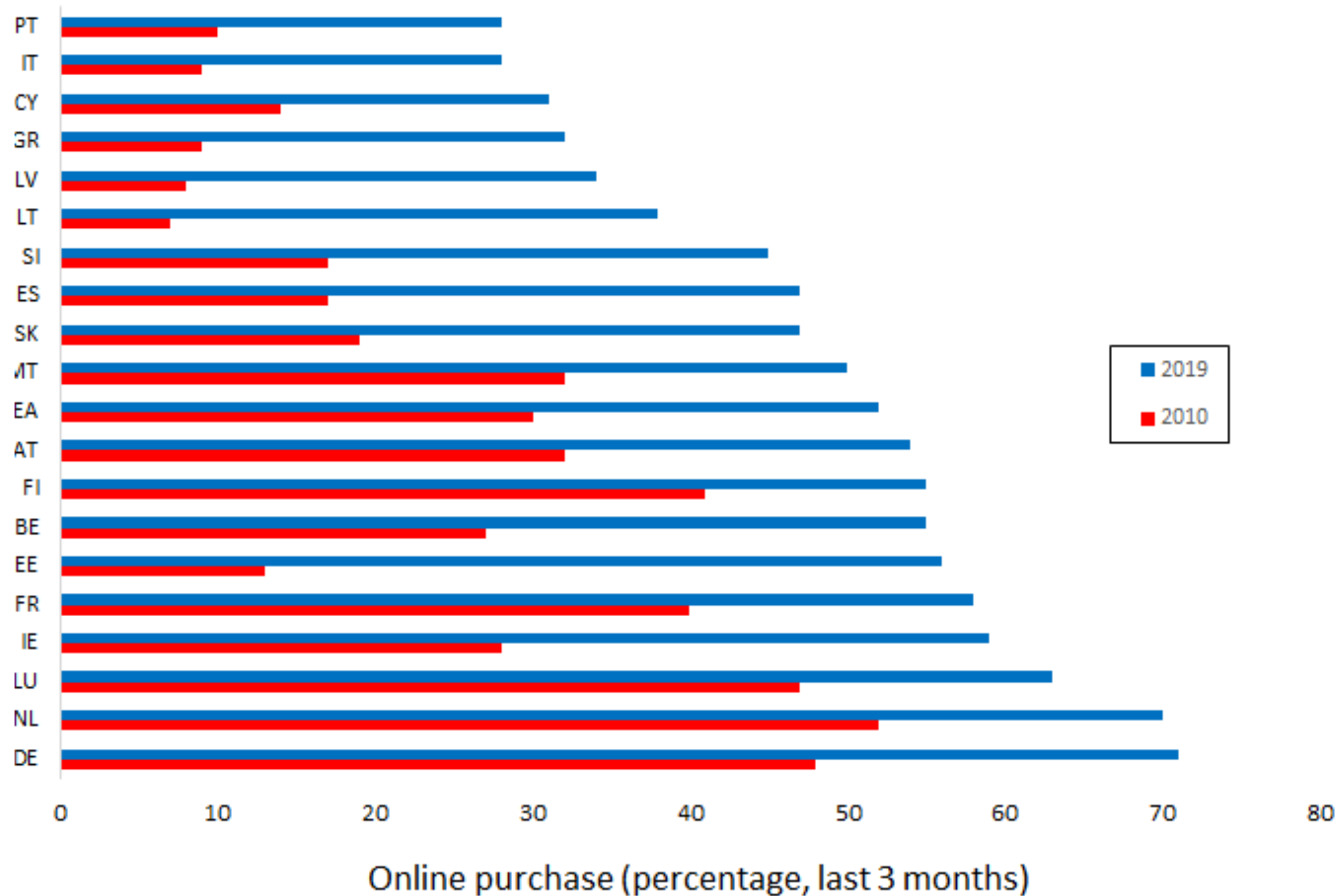
LSE Systemic Risk Center: CBDC Threat or Opportunity October 28, 2022

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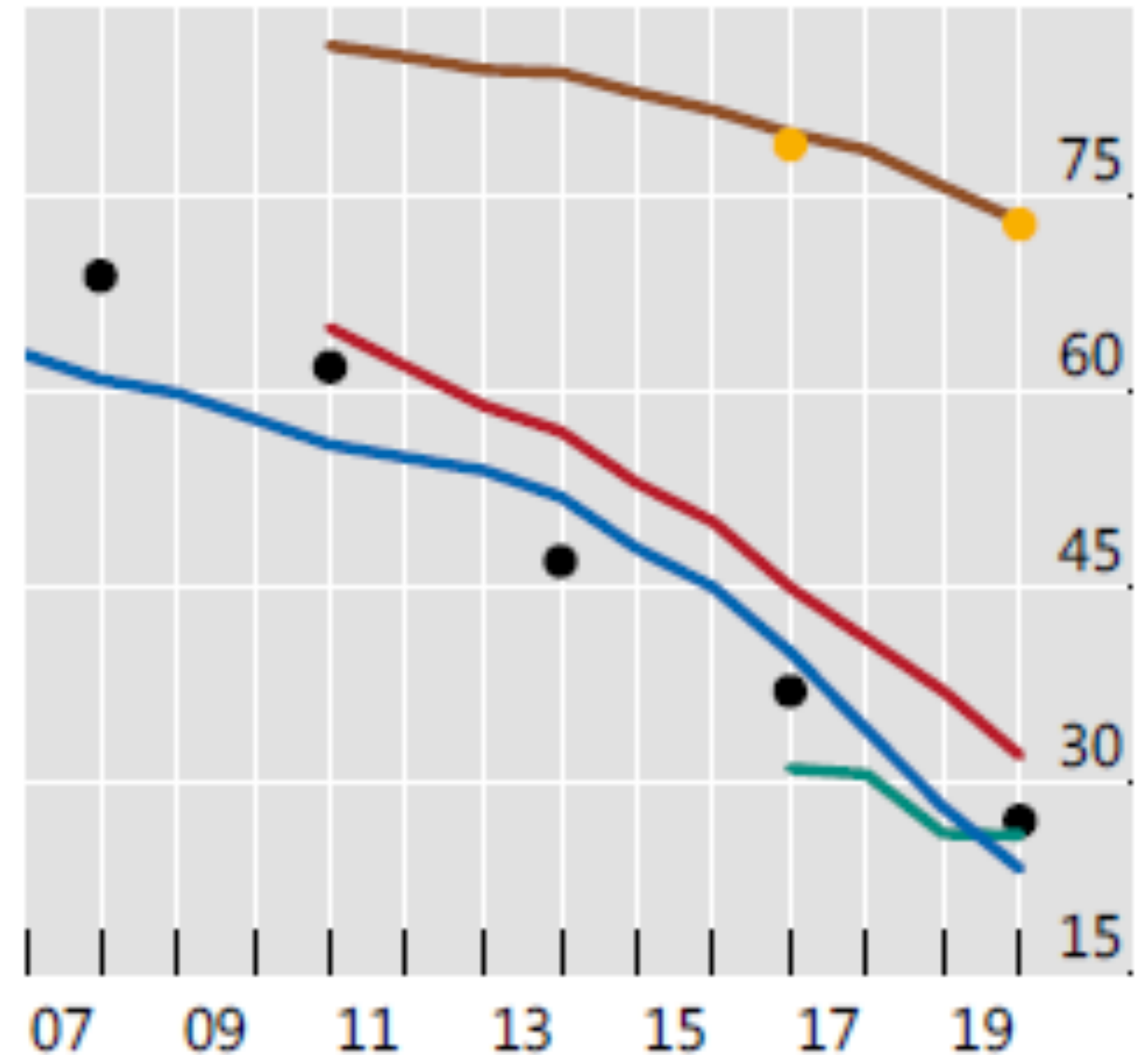
What is CBDC?

- A **digital** liability of a central bank **available to non-banks**
- Can be restricted to **wholesale** market participants (wholesale CBDC)
- or also available to **retail** market participants (retail CBDC)
- Accounts at a central bank for all
- Use case?

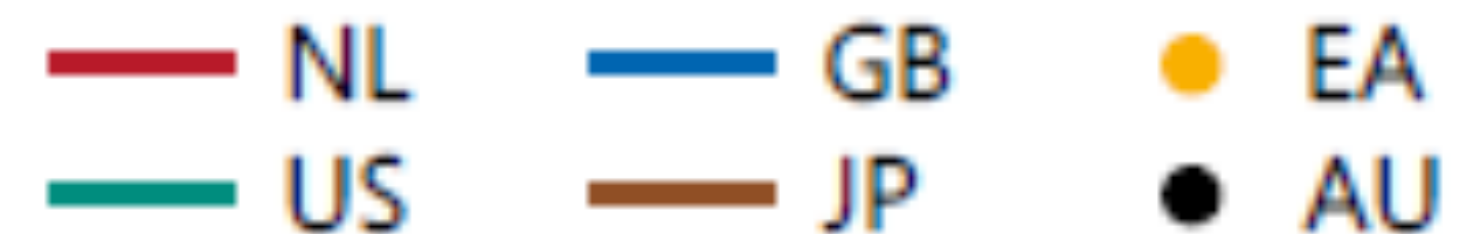
The digital economy



requires a means to pay



Share of cash in retail transactions:



Information in the digital economy

- Business model of large tech firms is to monetise (payments) data
- Privacy concerns are growing
 - Survey on digital euro: privacy #1 concern (43%)
- If privacy is needed, has the public sector an advantage at providing it?

Information and social externalities

- Garratt and Van Oordt (2021)

Buyers produce useful information for platforms

- ... that platforms use to better match (future) buyers with sellers (positive)...
- ... but also to price discriminate (negative)... which could lead to inefficiencies

Current buyers do not internalise that cost on future buyers

- so... subsidise the use of a privacy-preserving means to pay: CBDC

Information and inefficiencies

- Anhert, Hoffmann, and Monnet (2022)

Payments data reveal information to lenders (banks)

- informed lenders can extract more rents from borrowers
- leading to suboptimal decisions by borrowers

Information and walled gardens

CBDC preserves anonymity and limits rent extraction...

BUT... platform “tokens” also preserves anonymity toward lender

... platform tokens can give rise to other inefficiencies, e.g. “walled gardens” (BIS, 2020)

CBDC with **data sharing functionality** does better than tokens

- Allows privacy and competition
- “Privacy is not the opposite of sharing — rather it is control over sharing”

(Acquisiti et al. 2016)

Information and stability

- Keister and Monnet (2022)
- Monitoring the flow of funds into CBDC allows policymakers to react more quickly to periods of stress
 - lessens the incentive for depositors and other short-term creditors to withdraw assets
- Banks do less maturity transformation when depositors have access to CBDC, reducing their exposure to depositor runs.

Conclusions and issues

1. Benevolent government has an advantage in providing privacy
2. Requires trust in the government with handling our data
3. Also programmability —> great tool, allows us to commit but... gives more control to government/CB, which can be a force for good (e.g. sanctions) but also for evil (e.g. controlled spending)
4. KYC/AML — Can CB relinquish control over CBDC usage?