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ELTVILLE, GERMANY
JUNE 21-22, 2019

Discussion: "Central bank-issued digital currency: The future of money and banking?"

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What the authors do

- Evaluate impact that central bank-issued digital currencies (CBDC) could have on banks + liquidity

Main findings:

- ❑ Deposits and credit are complements in producing liquidity because banks can use drawn credit lines to back deposits
- ❑ A CBDC that "competes away" bank deposits could reduce welfare if the CB's cost advantage is insufficiently large
- ❑ There's a cost to society from less liquidity (i.e. eroding deposit base = less lending in the economy)

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Insight for CBDC focused on one potential cost

- Paper reminds us to look at CBDC impact on bundle of bank services, not just payments
- Issuer of the digital currency in the authors' model could be anyone (Facebook, for e.g., with Libra)
  - ❑ Nothing special about CB in the model except lower cost
  - ❑ More to say about unbundling of particular bank services
- To say more, must analyze costs and benefits
  - ❑ Policymakers need to determine whether a CBDC would be a **net benefit** to society
    - › For e.g., ignores credit risk so no potential benefit for CBDC to improve market discipline

Key potential costs and benefits of a CBDC

Costs	Benefits
Interest-bearing CBDC would compete with commercial bank deposits	Public outside money is a public good
CBDC could offer an easier run mechanism during crises	More effective mon-pol (esp. in face of competing private crypto currencies)
New reputational risk issues (e.g., if CBDCs facilitate illicit transactions)	Efficiency and competition in banking services through market discipline
Might stifle payments innovation	Could support financial stability

Engert and Fung 2017 (BoC), "Central Bank Digital Currency: Motivations and Implications"
Fung and Halaburda 2016 (BoC), "Central Bank Digital Currencies: A Framework for Assessing Why and How"
Engert, Fung and Hendry 2018 (BoC), "Is a Cashless Society Problematic?"
Chapman and Wilkins 2019 (BoC), "Crypto 'Money': Perspective of a Couple of Canadian Central Bankers"

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Key potential costs

Interest-bearing CBDC would compete directly with commercial bank deposits (as the authors note)

- ❑ Deposits are a very stable form of bank funding
- ❑ CBs already compete with deposits via cash

CBDC could offer an easier run mechanism in crises

- ❑ Research by BoC, BIS, CPMI, others
- ❑ Need to understand if design features could mitigate this risk

CBDC could create new reputational risk issues

- ❑ Potential vehicle for illicit transactions on a greater scale than cash
- ❑ Hackings could put all holdings at risk

Less innovation in the payments space

- ❑ Could hamper productivity growth

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Key potential benefits

Public outside money is a public good

- ❑ Universal, safe medium of exchange supports trust + financial inclusion
  - › People care about cash even where use is declining rapidly (Riksbank 2018)

Effective implementation of monetary policy

- ❑ Safeguard vs. possible impact of widespread crypto adoption
- ❑ Could help lower ELB (Rogoff 2016, *The Curse of Cash*)
- ❑ Davoodalhosseini 2018: MP more effective if can target different groups

Efficiency and competition in banking services

- ❑ CBDC would continue role that cash now plays (additional payment option, "riskless" store of value)
- ❑ Competition could support market discipline and lead to lower-cost, higher-quality banking services
- ❑ Chiu et al. (BoC 2019): CBDC doesn't necessarily crowd out private banking

Could make payments systems more resilient to operational failures, boosting financial stability

A few important caveats

- E-money may not be a perfect cash substitute (Chiu and Wong 2014)
- CBDC would not necessarily be a substitute for bank notes in a cyber event
- Case for CBDC is stronger when there is a market failure (Bordo and Levin 2017, Fung and Halaburda 2016)

Costs and benefits of CBDC would depend on design

- Paper assumes same design for central bank (CB) and commercial deposits
  - Only difference is cost of production
  - CBDC is beneficial if it's sufficiently cheap to produce
    - Specifically, if $\kappa^*/\phi^* = \frac{1-\phi}{2}\kappa/\phi$
  - But it's not clear CB has a comparative advantage supporting $\kappa^* < \kappa$
- Design characteristics of a CBDC could differ greatly from deposits:
  - ❑ Privacy or anonymity?
  - ❑ Account or token-based?
  - ❑ Interest-bearing?
  - ❑ Access? Fees?

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Concluding remarks

- Paper has an important insight about potential unbundling of bank services that is relevant for CBDC
- An alternative focus could be to study the effects of innovation and unbundling of services on complementarity in commercial banking
  - For example, modelling a legacy bank competing vs. 2 fintechs (1 offering deposits, 1 offering lines of credit)
- Either way, a dynamic model of adoption might be better
  - ❑ If model is in equilibrium with legacy banks, would households switch to CBDC?
  - ❑ Model coexistence of CBDC and banks offering deposits and lines of credit
  - ❑ Dynamic model even more interesting if banking sector lacks perfect competition
- Determining whether a CBDC is the future of money requires full assessment of costs and benefits