FEDERAL RESERVE BANK *of* NEW YORK

Central bank digital currencies

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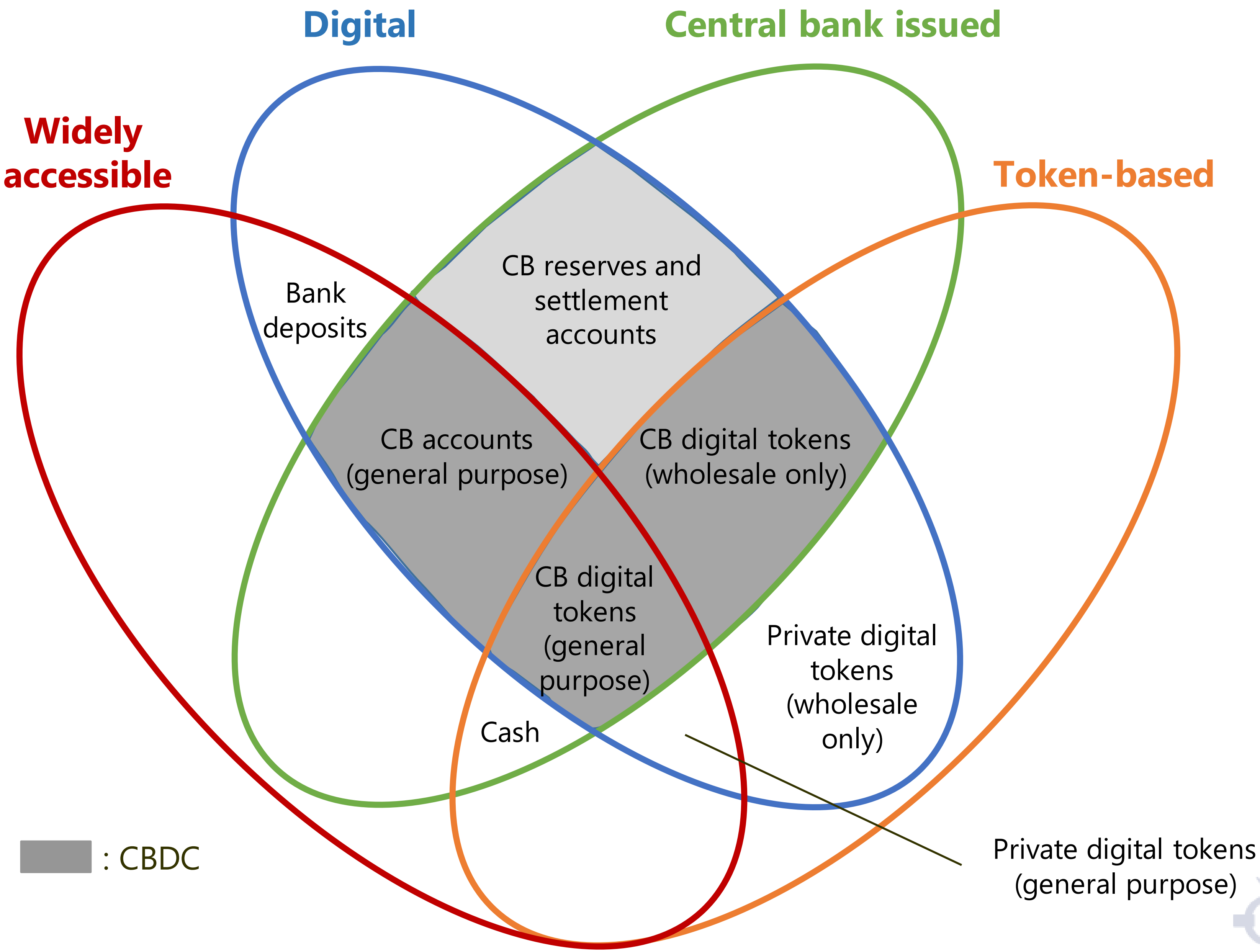
Overview

- Central bank digital currency (CBDC): What are we talking about?
  - The "money flower" is a useful device to clarify the discussion
- What is a CBDC useful for?
  - It could depend on the type of CBDC—I will focus on retail CBDC
  - Is the central bank or the private sector better positioned to offer a digital currency?

CBDC: What are we talking about?



What are tokens anyway?

- Payment economics distinguishes between “store-of-value” and “account-based” systems
  - Example of store-of-value system: Cash
  - Example of account-based system: Fedwire
- Tokens could be related to some notion of privacy
  - In contrast to an account, it should be possible to obtain a token without having to register or sign up

Different types of CBDCs

- CB wholesale digital tokens:
  - Some CBs are experimenting with blockchain applications of such token
- General purpose CB accounts:
  - Perhaps a good idea but not a new idea (e.g., Tobin 1985)
- General purpose CB digital tokens:
  - Some CBs are considering the costs and benefits of such tokens

What are CBDCs useful for?

What are general purpose CB accounts useful for?

- Many arguments have been made, including:
  - Financial inclusion
  - Better monetary policy transmission
  - Increased financial stability
- Since this is not a new idea, why now?
  - Was this a good idea all along and we never realized it?
  - Has technology changed the costs and benefits?

What are general purpose CB tokens useful for?

- Many arguments for and against general purpose CB accounts also apply to CB digital tokens
  - Again, most of this is not really new
- Why tokens rather than accounts?
  - Economic theory suggests that in many standard setting accounts are better than tokens
  - Tokens make more sense for a cryptocurrency like bitcoin, which is designed to make payment even absent trust
  - The benefits of tokens when issued by a CB, a trusted third party, is less clear

A new reason to think about central bank digital tokens

CB tokens as a substitute for cash

- Some CBs have started to think about the need for CB digital tokens (and/or accounts) if cash disappears
- We should remember that most payment systems rely on the cooperation between the CB and the private sector
  - Would the disappearance of cash make us think differently about the current distribution of roles?
  - Do new technologies affect the way we think of this distribution of roles?

Why CB tokens if cash disappears?

- In countries where cash usage is falling rapidly, a key reason seems to be that alternatives are better
  - That seems like a good thing
- Does the disappearance of cash introduce new problems?
- Two interesting questions:
  - Are remaining payment methods sufficiently safe?
  - Do private systems need a public back-up system?
- CB involvement is one of many potential solutions

There are any ways to make a payment safe

- In many countries, deposit insurance make payments using bank deposits safe
- Another way to protect deposits would be to allow banks to collateralize them in a convenient way
  - Garratt, Martin, McAndrews, and Nosal propose “Segregated Balance Accounts”
- Are there benefits of a central bank liability compared to a private sector liability that is risk-free?

To sum up

- When talking about CBDC it is useful to specify exactly what we are talking about
- A number of CBs are exploring different types of CBDC
  - It is not yet clear if any of them will adopt a CBDC
- When it comes to digital currencies, we should think about areas where central banks are likely to be better than the private sectors, and those where they are not