



Discussion of “The coming battle of digital currency”

Morten Bech

ECB Money Market Conference, Frankfurt, 3-4 November 2022

The views expressed are those of the presenter and not those of the BIS



Central Bank Innovation Swiss Made

Global force for innovation

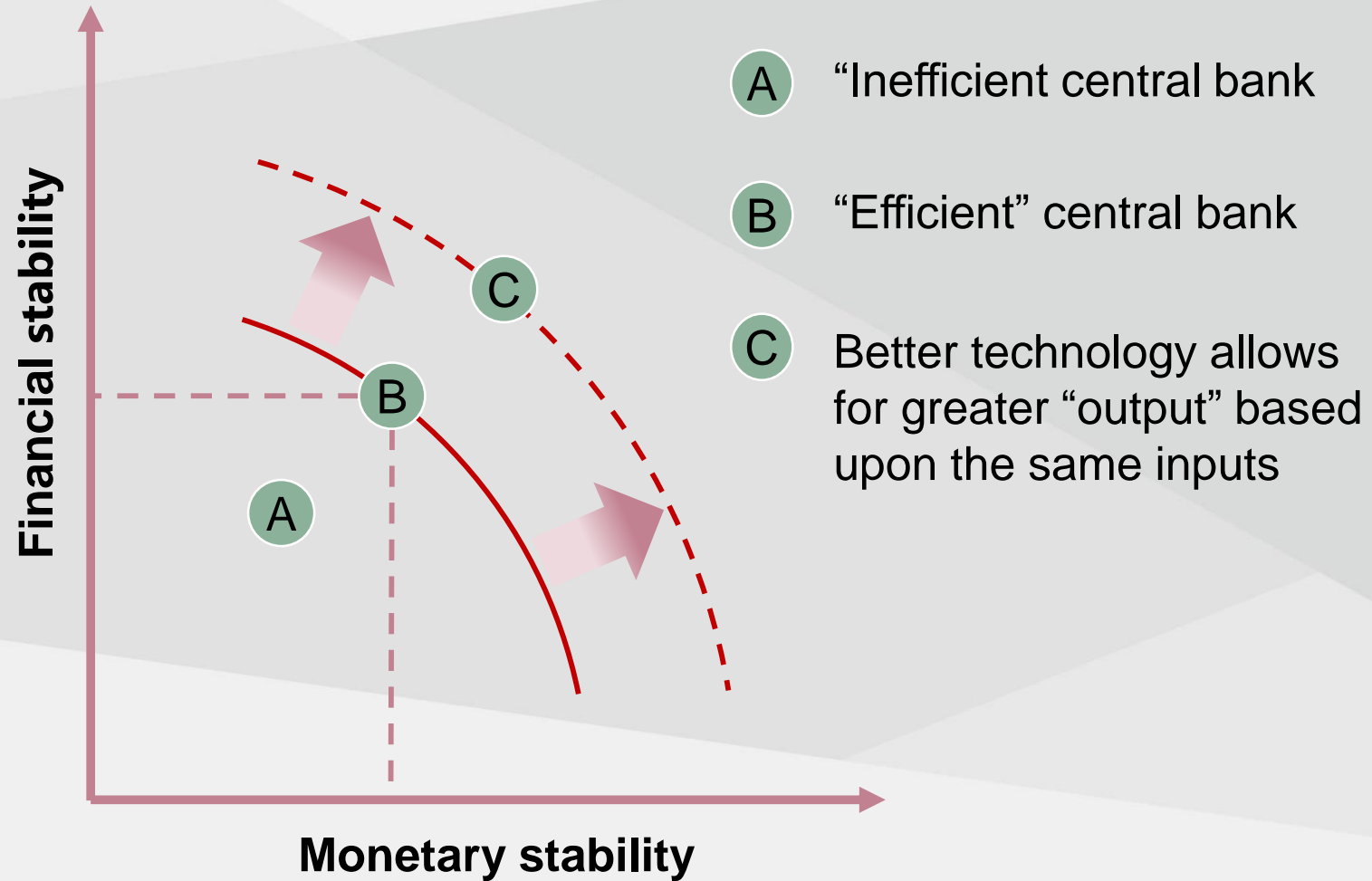


-  Existing Hub Centre
-  New Hub Centre
-  Strategic Partnership

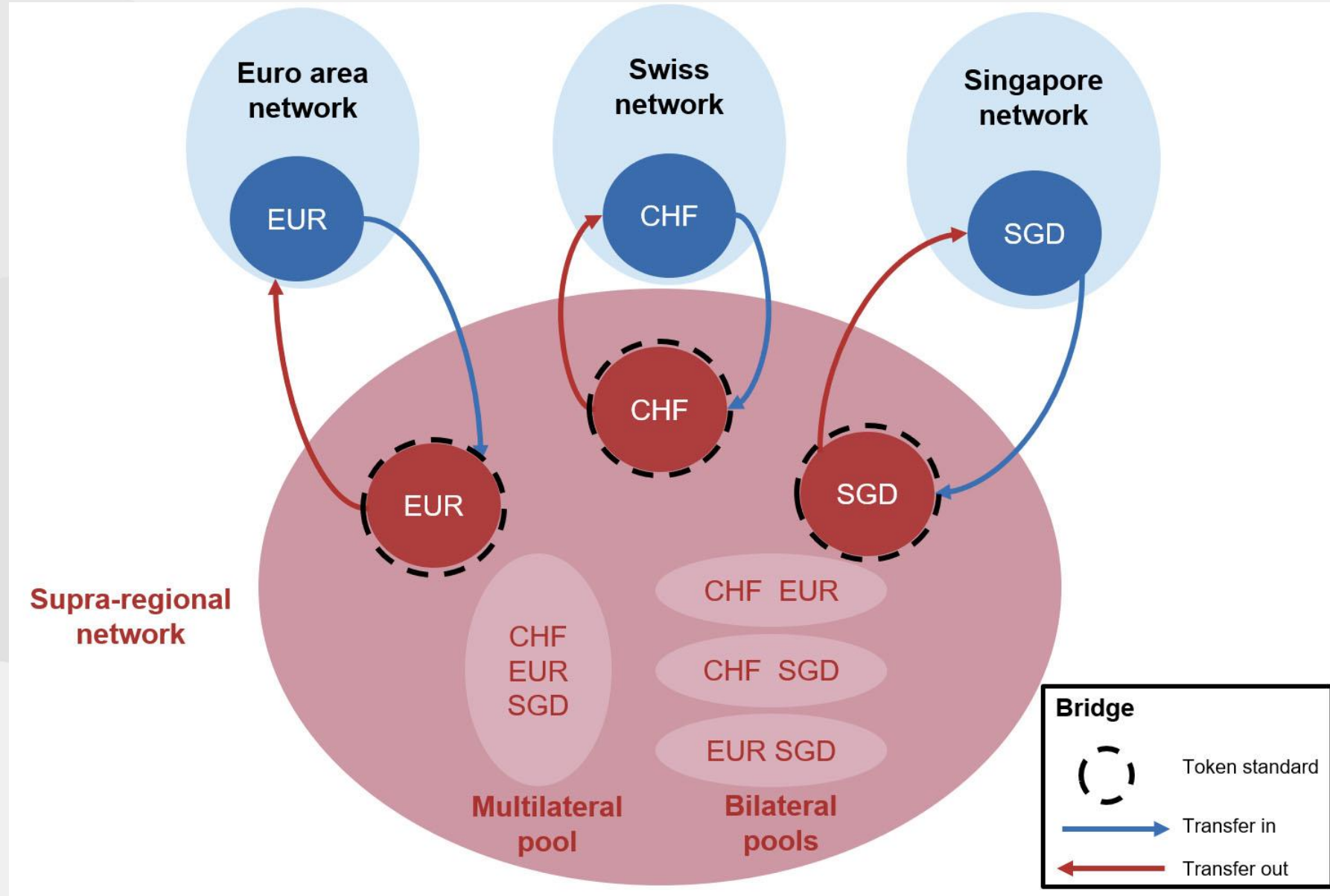
Central banks and innovation



What we do? - use technology/innovation to enhance monetary and financial stability



Project Mariana





Article Writing

- Plagiarism free
- Researched Work
- High quality work
- Creative content
- Fast Delivery



Article Writing



Plagiarism free



Researched Work



High quality work



Creative content



Fast Delivery

Game plan



Definition of CBDC



CBDC data



The CBDC issuance model



The conclusion

Definition

One equation to explain CBDC

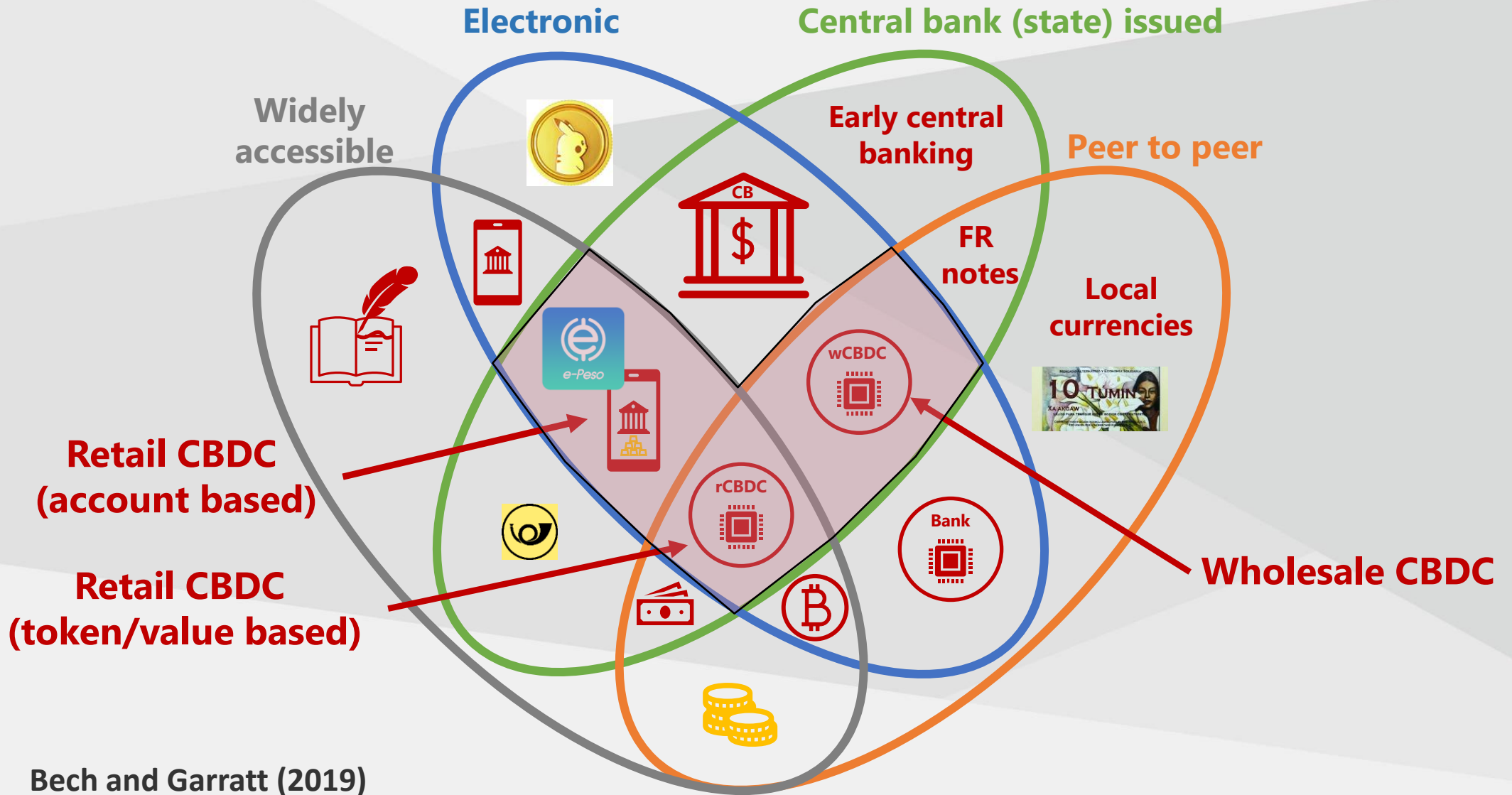
$$\text{CBDC} = \text{MM}_0\text{GA}$$

The right-hand side is short for

MM₀GA =

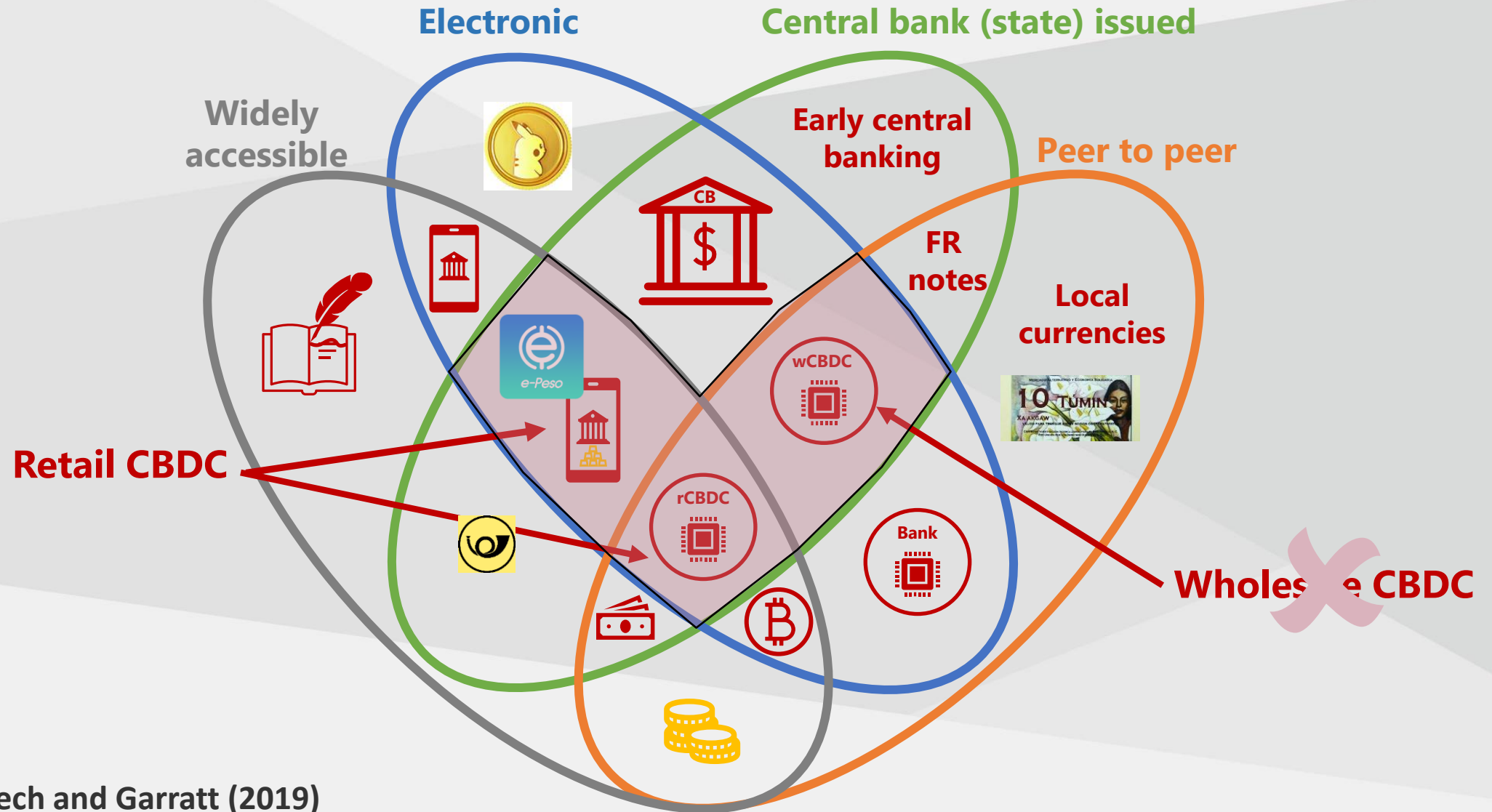
Making M_{zero} Great Again
(base money)

What are Central Bank Digital Currencies?



Bech and Garratt (2019)

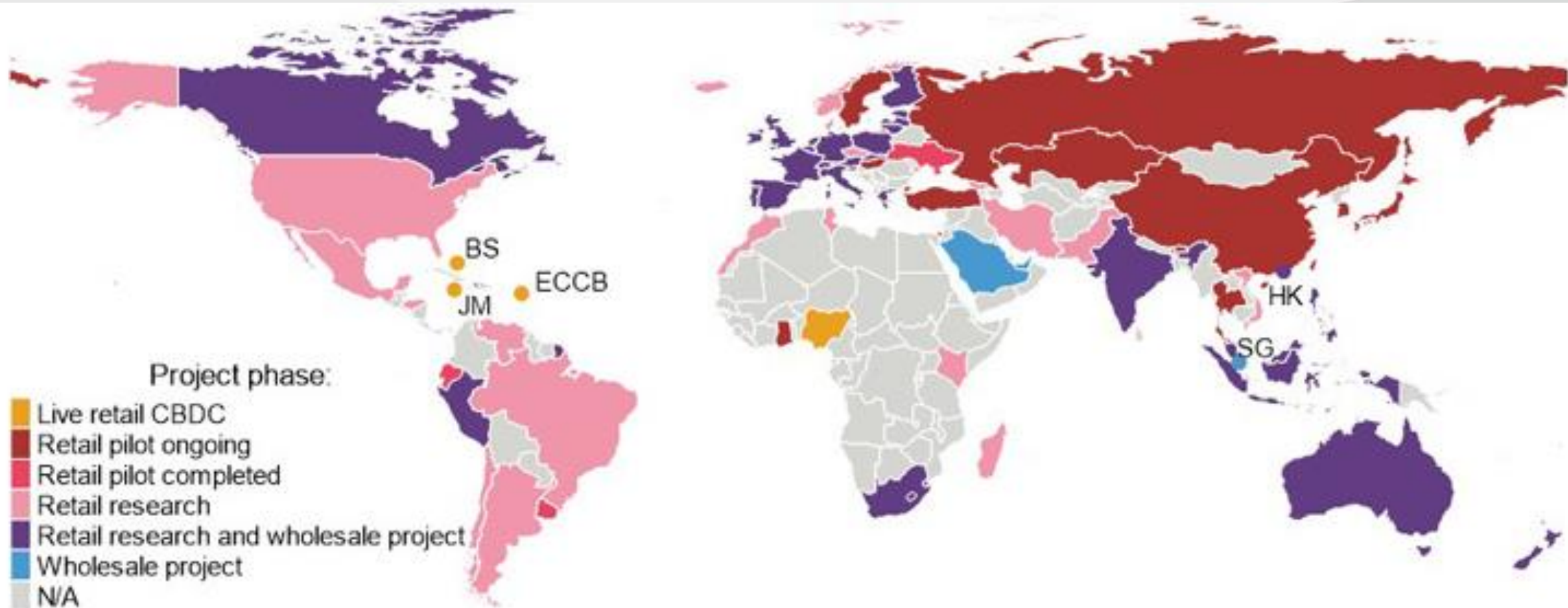
What are Central Bank Digital Currencies?



Bech and Garratt (2019)

A close-up, low-angle shot of server racks in a data center. The racks are dark blue or black, and several green indicator lights are visible, glowing against the dark background. The perspective is from a low angle, looking up at the racks, creating a sense of depth and scale.

The data



BS = The Bahamas; ECCB = Eastern Caribbean Central Bank; HK = Hong Kong SAR; JM = Jamaica; SG = Singapore. The use of this map does not constitute, and should not be construed as constituting, an expression of a position by the BIS regarding the legal status of, or sovereignty of any territory or its authorities, to the delimitation of international frontiers and boundaries and/or to the name and designation of any territory, city or area. Update 1 July 2022.

Source: R Auer, G Cornelli and J Frost (2020), "Rise of the central bank digital currencies: drivers, approaches and technologies", *BIS working papers*, No 880, August.

Stylized fact: The action is in the Caribbean and Africa



Definition

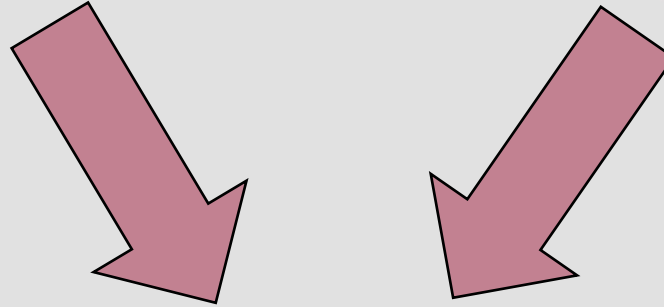
Model combine two concepts/literature

Currency substitution

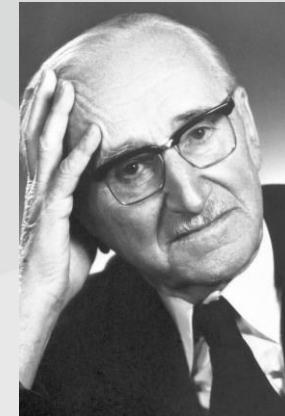
Use of a foreign currency in parallel to or instead of a domestic currency

Currency competition

The free entry of private-sector firms into the issuance of a currency



Model



Friedrich Hayek

The CBDC issuance game

- I = Investment to implement CBDC – Very expensive for dominant country today
- $\$$ = Seigniorage benefit/loss from “dollarisation” – a CBDC pre-empts Bitcoin growth
- ฿ = Seigniorage loss from Bitcoin

		Country B (“non-dominant”)		
		Today	Tomorrow	Never
Country A (dominant)	Today	$1 + \$ - 3I$ $1 - \$ - I$	$1 + 2\$ - 3I,$ $1 - 2\$ - I$	$1 + 2\$ - 3I,$ $1 - 3\$$
	Tomorrow	$1 + \$ - \text{฿} - I$ $1 - \$ - I$	$1 + \$ - \text{฿} - I$ $1 - \$ - I - \text{฿}$	$1 + 2\$ - \text{฿} - I$ $1 - 2\$ - \text{฿}$
	Never	$1 - 3\text{฿}$ $1 - I - 2\text{฿}$	$1 - 3\text{฿}$ $1 - I - 2\text{฿}$	$1 - 3\text{฿}$ $1 - 3\text{฿}$

The CBDC issuance game

		Country B ("non-dominant")		
		Today	Tomorrow	Never
Country A (dominant)	Today	$1 + \$ - 3I$ $1 - \$ - I$	$1 + 2\$ - 3I,$ $1 - 2\$ - I$	$1 + 2\$ - 3I,$ $1 - 3\$$
	Tomorrow	Non-dominant currency B (CHF, RMB, EUR)	$1 + \$ - \text{B} - I$ $1 - \$ - I - \text{B}$	Very weak currency B (El Salvador)
	Never	$1 - 3\text{B}$ $1 - I - 2\text{B}$	$1 - 3\text{B}$ $1 - I - 2\text{B}$	$1 - 3\text{B}$ $1 - 3\text{B}$



Conclusion

Reasons for CBDC

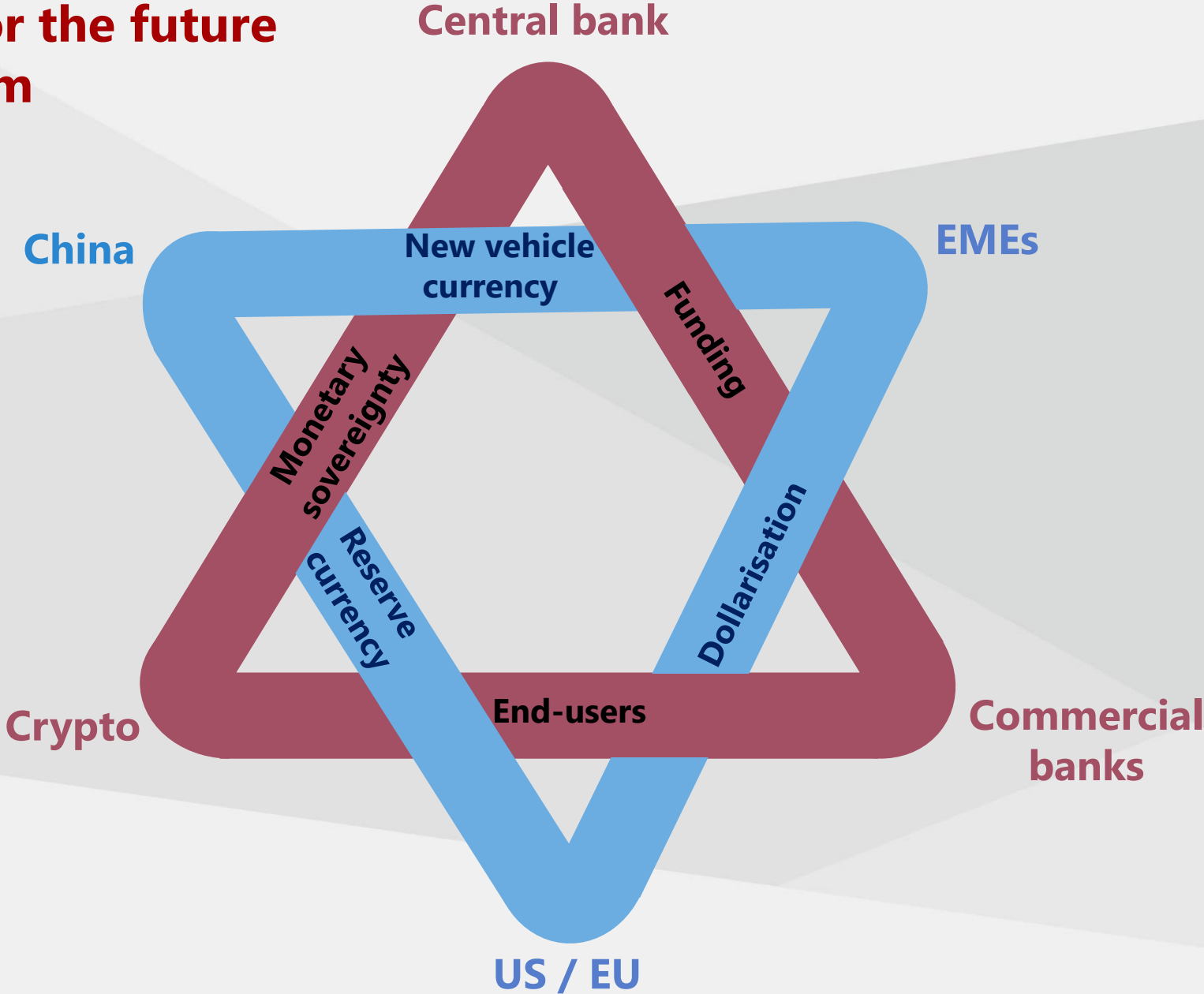


Even if the precise **use cases are not yet definitively fixed**, there are **several material reasons** to consider the issuance of a **digital euro**

1. preserve the **accessibility and usability of central bank money**,
2. support our **monetary sovereignty**,
3. support the **strategic autonomy** of the European continent

Central bank digital currency (CBDC) and bank intermediation in the digital age – Speech 12 July 2022

The scramble for the future monetary system





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