

# CBDC: Domestic and International Implications

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# Several trends raise new questions on money

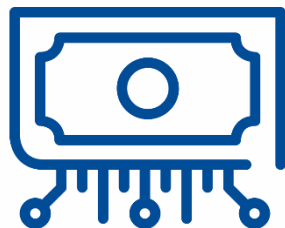
Digitalization

Demographics

Private digital money

- Should CBs offer CBDCs?
- What would be the impact?

# What is CBDC?



Retail CBDC

Digital



CASH

Physical



CB RESERVES

Digital

Appearance

Accessibility

Usage

All  
(domestic?)

P2P, P2B, B2B,  
any amount

All

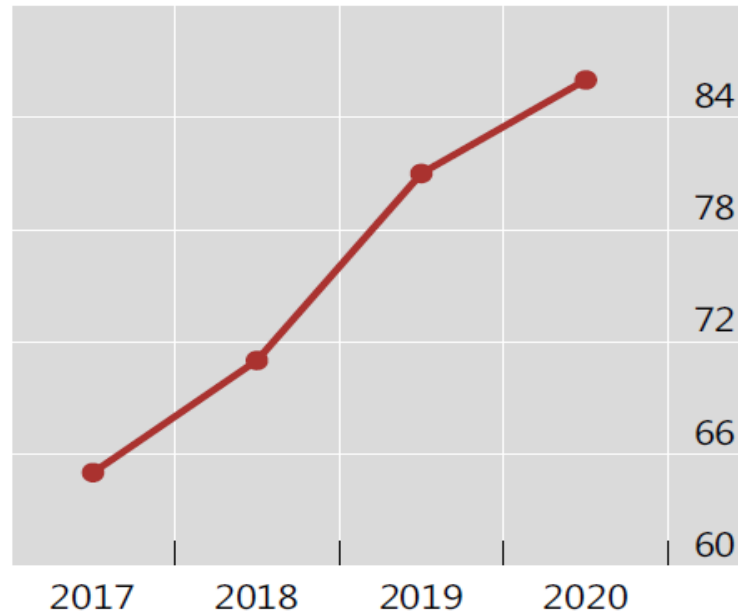
P2P, P2B  
small

Large banks

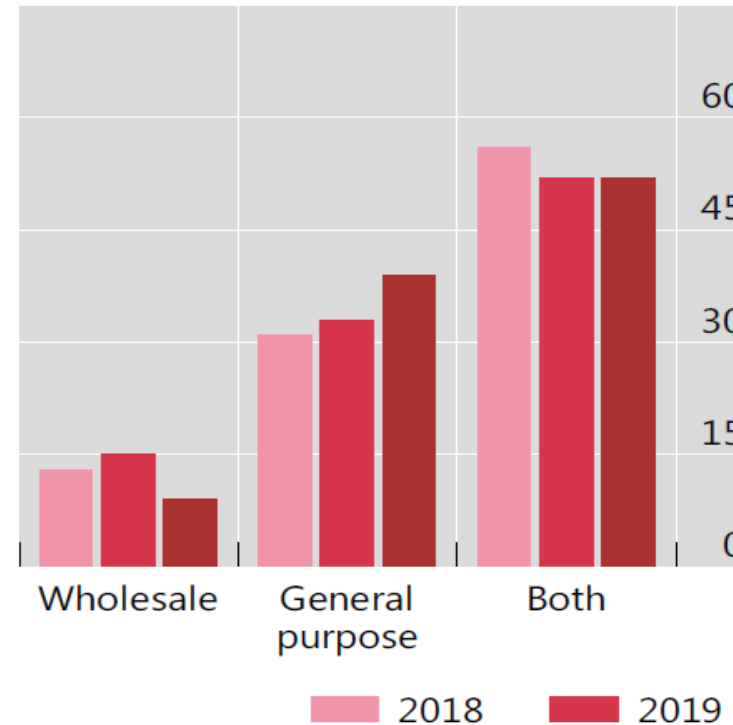
Interbank,  
large

# CBs are increasingly exploring CBDCs

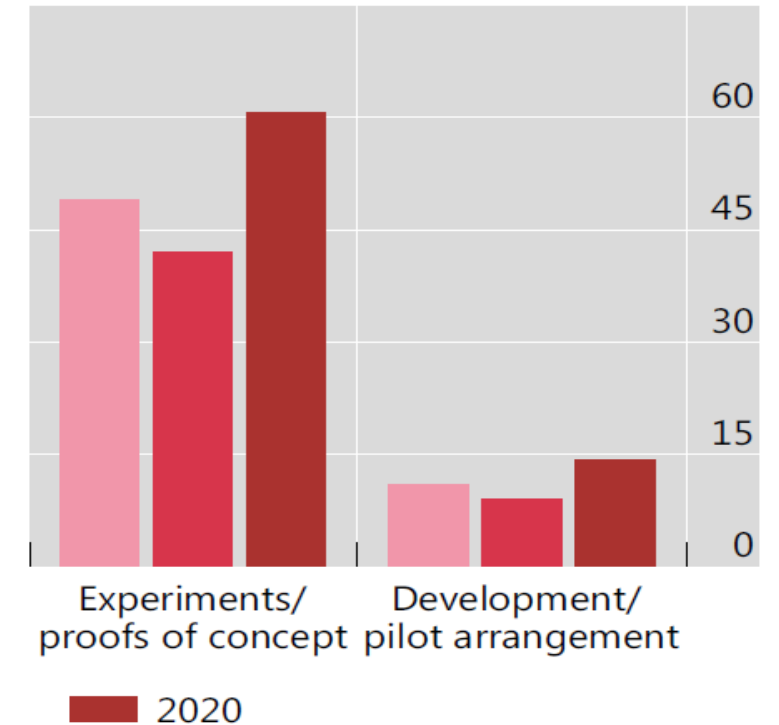
Engagement in CBDC work



Focus of work<sup>1</sup>



Type of work in addition to research<sup>1</sup>



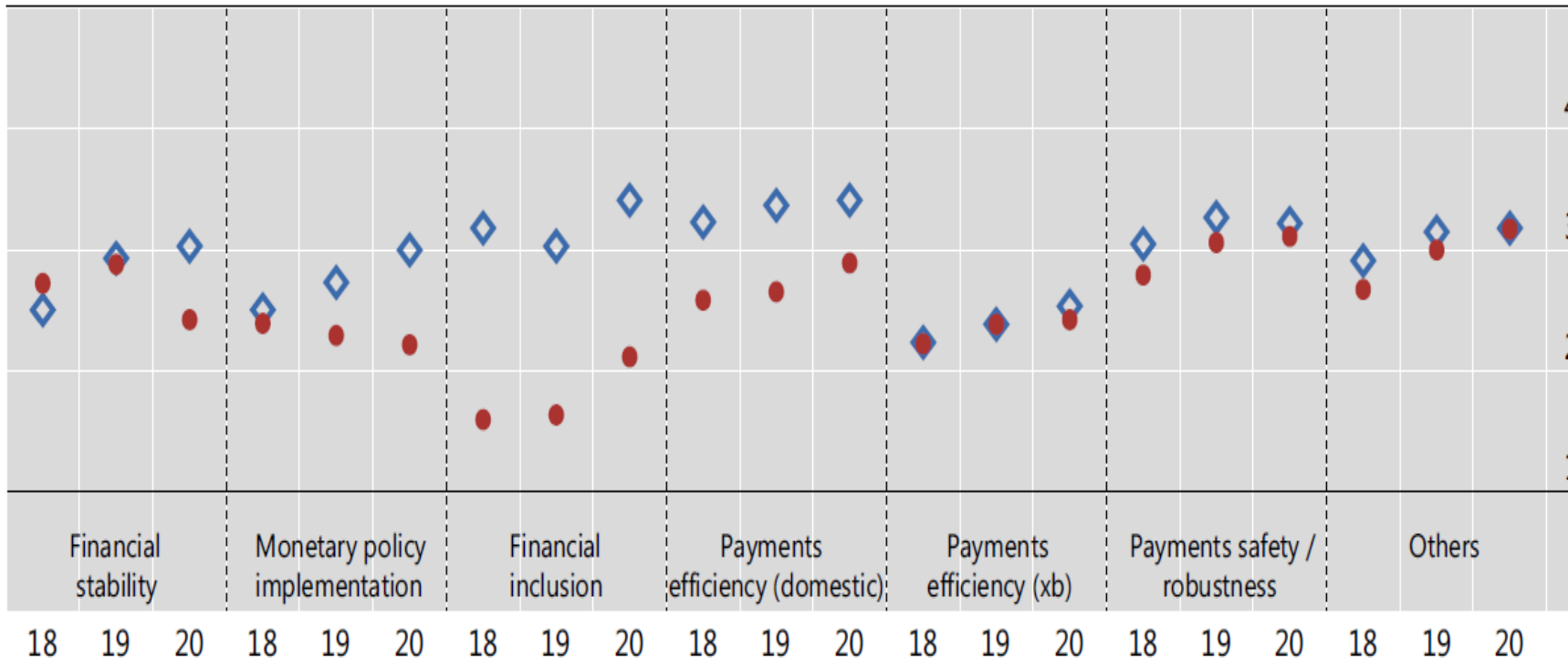
<sup>1</sup> Share of respondents conducting work on CBDC.

Source: BIS central bank survey on CBDCs.

Boar C. and A. Wehrli (2021), "Ready, steady, go? Results of the third BIS survey of central bank digital currency," BIS Papers No 114

# Motives to explore retail CBDC

Average CB responses for retail CBDC



Financial inclusion, payment efficiency & robustness are key motives to consider CBDCs for CBs in EMDEs

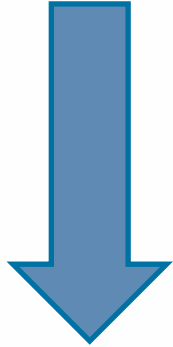
Source: Boar C. and A. Wehrli (2021), "Ready, steady, go? Results of the third BIS survey of central bank digital currency," BIS Papers No 114

# Should EMDEs' CBs issue retail CBDCs?

- No conclusive answer
  - ✓ Decision to issue CBDC will require assessing benefits vis a vis risks which will vary by country
- CBDC should not be seen as a substitute for a coherent and credible monetary framework
- If proceeding with CBDC, CB should do it cautiously

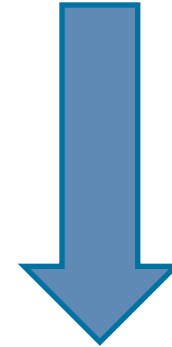
# Implications of CBDC for EMDEs

Own CBDC



**Domestic Implications**

Foreign CBDC



**International Implications**

# Domestic implications of retail CBDC

1

## Financial integrity

Illicit flows?

2

## Financial stability & bank intermediation

Disintermediation?

Run risk?

3

## Monetary policy

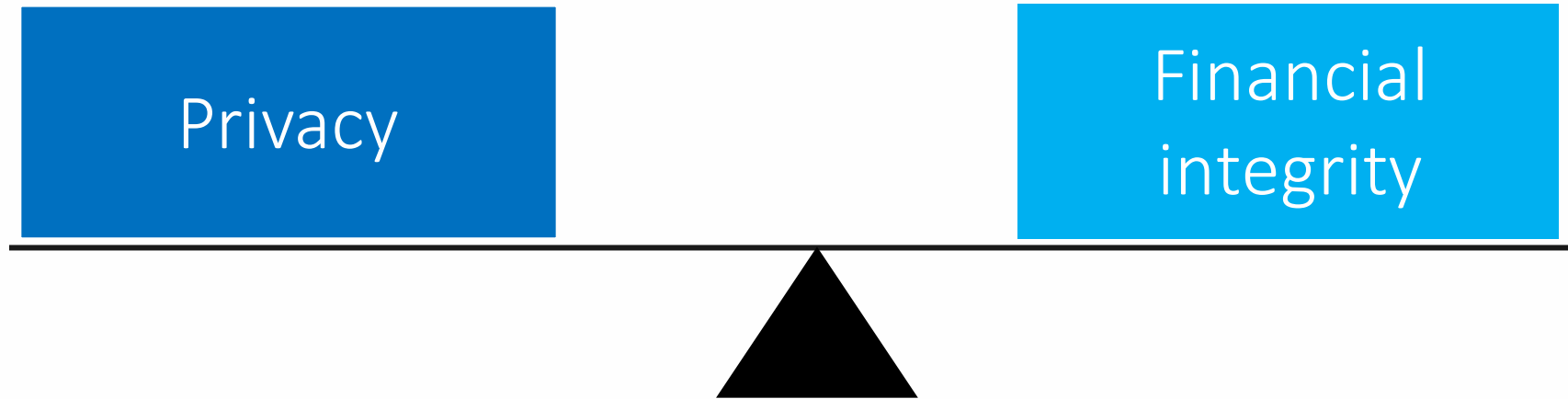
Impact on transmission?

ELB

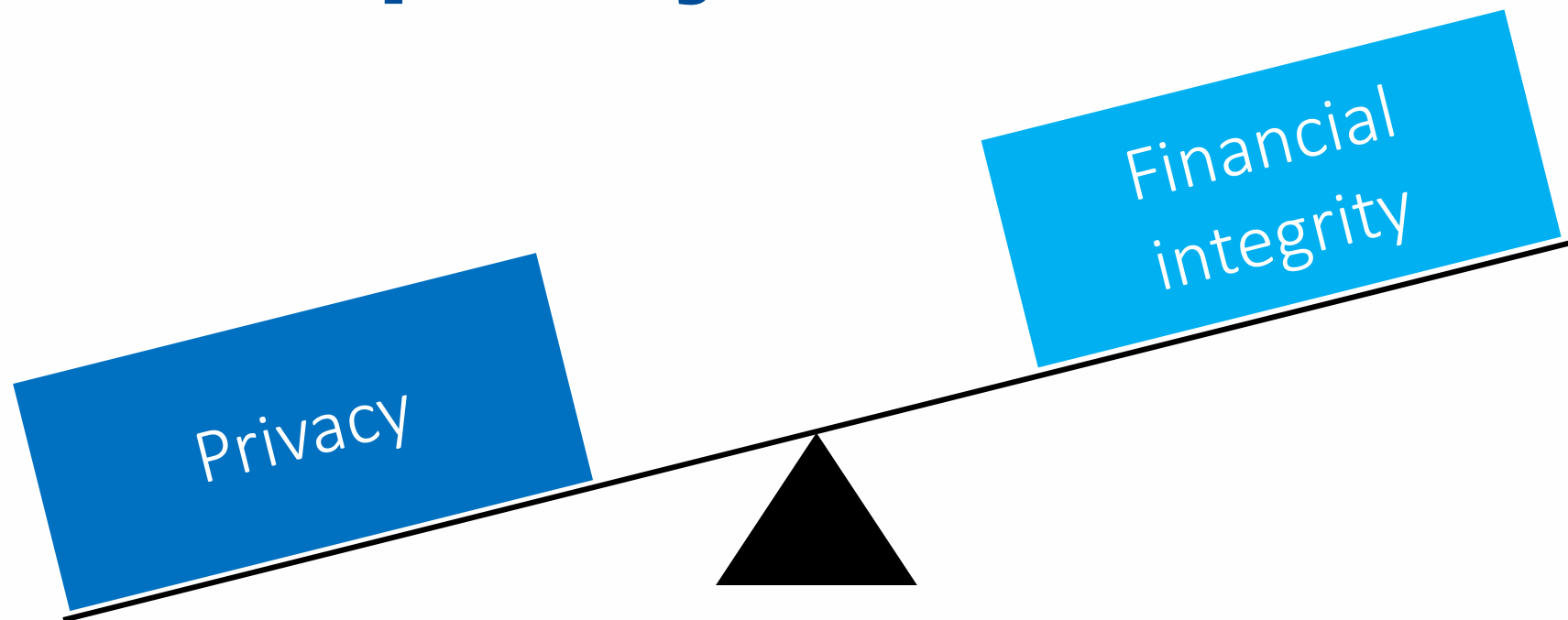


# 1 **Financial integrity**

# Tradeoff in designing money



# Cash favors privacy



- No account
- No identity
- No record of transactions

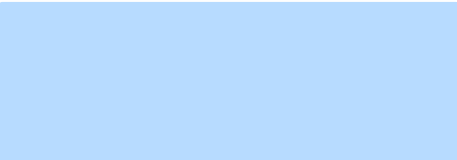
- Illicit transactions
- Especially if large denomination bills

# CBDC impact on integrity depends on design choices



CBDC can protect privacy without undermining integrity if...

CBDC can undermine integrity if ...



<p>Limits on size of transactions exist</p> <p>Appropriate customer due diligence in place &amp; transactions recorded</p> <p>Identity revealed only if illicit activity suspected</p>	<p>Full anonymity and large-value transactions allowed</p>
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2

# **Financial stability & bank intermediation**

# If CBDC competes with deposits...

## Risk of disintermediation in the transition

- What happens when CBDC is introduced?
- How is bank funding and lending affected?

## Run-risk during systemic crises

- What happens during system-wide crises?
- Does the existence of CBDC increase run-risk?

# Disintermediation during the transition

- Banks could lose deposits and shrink loans  
CB balance sheet grows
- Banks could fight to retain deposits by increasing rates  
Ability hinges on market power
- Banks could change composition of funding  
Affects cost and stability of funding, and market discipline

# Policy response to avoid disintermediation

- CB recycles deposits back to banks

Unchartered waters for CB with implications for intermediation and CB credit risk

- Set limits on holdings of CBDCs to avoid deposit drain
- Help banks maintain ties with customers



# Impact on run-risk depends on type of crisis

Type of crises	Run-risk increase?
Currency or sovereign crisis	Probably not <i>(runs are typically away from local assets)</i>
Individual bank insolvency	Probably not <i>(runs among banks already easy)</i>
Systemic bank crisis	<i>Possible (but safe assets exist already)</i> <div style="border: 1px solid green; padding: 5px; margin-top: 10px;">Deposit insurance, liquidity provision and limits can mitigate risks</div>

3

## **Monetary policy transmission**

# The transmission of monetary policy could be enhanced by a domestic CBDC

Transmission channel	Impact of CBDC
Interest-rate	<b>Could increase</b> if financial inclusion increases or CBDC pays interest
Bank lending	<b>Could increase</b> if banks rely more on wholesale funding
Credit	No major effect expected
Exchange rate channel	No major effect expected

# Additional considerations - MP transmission

- Effective lower bound will continue to exist if cash is used
- If banks were displaced, monetary policy with interest on CBDC  
Most liquid & safe asset

# International implications of CBDC for:

- 1 Cross border payment efficiency
- 2 Currency substitution & monetary policy
- 3 Capital flow & financial stability
- 4 Reserve configuration and backstops

# 1 Cross-border payment efficiency

# Cross border (XB) payment efficiency ...

## Current frictions in XB payments

- Long transaction chains
- Low traceability and transparency
- Fragmented data standards
- Limited operating hours
- Funding costs
- Legacy technology platforms
- Weak competition



**High costs and low speed**

## Potential improvements from CBDC XB use

- Fewer intermediaries
- Potential for greater transparency and traceability
- Enhanced integration and safety
- 24x7 operating hours
- State of the art technologies
- Foster competition



**Lower costs and increased speed**

## 2 Currency substitution and Monetary policy effectiveness



# Foreign CBDC could impact use of domestic currency and conduct of MP

- Foreign CBDC used in international trade and finance (with large network effects) becomes widely available
- Weak local currency (due to macro and institutional factors)



## Currency substitution




- Weaker monetary policy transmission & effectiveness
- Reduce ability for CBs to act as LORs

3

## Capital flow and financial stability

# The use of foreign CBDC could affect capital flow and financial stability

- Larger gross flows  more leverage & greater valuation changes
- Capital flow volatility could increase
- Faster transmission of global financial conditions

4

## Reserve configurations and backstops

# **Advent of CBDCs may result in changes in reserve currencies & redesign of back stops**

- Over time new dominant currencies could emerge (although slowly) and central bank reserve configurations could shift
- The nature of backstops might need to change to reflect changes in the international use of currencies

# Addressing international implications of CBDC

- To curb currency substitution countries could explore:
  - Feasibility of limiting CBDC in circulation (issuer)
  - Desirability of imposing restrictions on XB cross-border transactions
  - Robust legal tender provisions to ensure that the national currency is favored
- To ensure the stability of the international monetary system, cooperation among CBs to provide backstops will be critical in case currency substitution increases

# Conclusions

- CBs are increasingly exploring CBDCs
- There could be domestic and international implications associated with CBDC
- Appropriate design and regulations could mitigate some of the risks
- Cooperation across countries will be key to minimize negative cross border implications