Changing the game with digital money

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Game plan

- Inefficiencies in money and payments: an emerging market perspective
- Central bank digital currencies as a solution
- The opportunistic bigtechs
- Concluding remarks
Known inefficiencies in FMI: inclusion and cross-border payments

Global access (financial inclusion)

Cross-border retail payment arrangements

1 Respondents aged 15+ who report having an account (by themselves or together with someone else) at a bank or another type of financial institution or report personally using a mobile money service in the past 12 months. Sources: World Bank Global Findex Surveys 2011, 2014, and 2017;
Remittance volumes and costs are rising

Placing a higher burden on emerging market economies that rely on remittances

1 Average total cost for sending $200; figure adapted from The Economist (2019).

Sources: National Bank of Belgium; SWIFT BI Watch; The Economist (2019); World Bank, Remittance Prices Worldwide; World Bank; BIS calculations.
Game changer
Are Central Bank Digital Currencies the solution?
Central bank digital currencies

### Design choices

<table>
<thead>
<tr>
<th></th>
<th>Existing central bank money</th>
<th>Central bank digital currencies</th>
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<tbody>
<tr>
<td></td>
<td>Cash</td>
<td>Reserves and settlement balances</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24/7 availability</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Anonymity vis-à-vis central bank</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Peer-to-peer transfer</td>
<td>✓</td>
<td>✗</td>
</tr>
<tr>
<td>Interest-bearing</td>
<td>✗</td>
<td>✓ (✓)</td>
</tr>
<tr>
<td>Limits or caps</td>
<td>✗</td>
<td>✗</td>
</tr>
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✓ = existing or likely feature, (✓) = possible feature, ✗ = not typical or possible feature.
CBDC for all

The potential positives:

- Safer deposit account
- Lower barrier to entry/improving inclusion
- Easier negative rates
- Better competition for customer deposits
- Easier cross-border payments

The considerations:

- Feasibility
  - Mandate/legal
  - Cyber risk
  - AML/CFT
  - Logistics
- Financial intermediation
  - bank deposits
  - Impact banks’ business models and lending
- Financial stability
  - quicker bank runs vs safe deposits
Wholesale CBDC

- Experiments to date result in systems that look broadly similar to, and not clearly superior to, existing RTGS
- But there might be a role to play if RTGS are not yet developed
  - Higher risks – DLTs are largely untested
  - Higher reward?
- More work and experimentation needed
Financial pain could be bigtechs’ gain
Big techs are increasingly moving into mobile payments

1 Venmo is a mobile payments app owned by PayPal that integrates social media features. It is popular among college students in the US.  
2 Calibra is the mobile wallet that will run on top of the Libra network.  
3 M-Pesa (M for mobile, pesa is Swahili for money) is a mobile phone-based money transfer, financing and microfinancing service, launched in 2007.
The need for speed - the back-ends are improving

Diffusion of fast payments

Use of fast payments

Sweden mobile payments take-off

1 The dashed part of the lines corresponds to projected implementation.
Sources: Bech and Hobijn (2007); Bech, Shimizu and Wong (2017); CPMI Red Book Statistics; FIS (2018); national central banks; World Bank Group; IMF.
New potential entry – global stablecoins

Front-end  Back-end
Stablecoins – bringing cryptos closer to money

Volatility

A functional view of the stablecoin ecosystem

1 Bitcoin nor Ether are ‘stablecoins’; they are included for reference.
Sources: G7 WG Investigating the impact of global stablecoins (2019); Bullmann, D, J Klemm and A Pinna (2019).
A simple framework ...

<table>
<thead>
<tr>
<th>Payments infrastructure</th>
<th>Domestic</th>
<th>Reach</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overlay (Uses other infrastructure to transact)</td>
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<tr>
<td>Stand alone (Traditional infrastructure and DLT)</td>
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Hybrid - a ‘synthetic’ CBDC

- Central Banks offer ‘eMoney’ providers access to their reserve accounts under a strict condition of 100% backing - IMF
- ‘Synthetic CBDC’ = Narrow banking
- Benefits:
  - Remove credit risk
  - Retail services provided by private sector
- Costs:
  - Strict supervision required
  - Reputation risk for Central Bank
Concluding remarks
Walk the talk

- We need to **improve the efficiency and inclusiveness of payment and financial services.**

- Central banks assess the relevance of issuing **central bank digital currencies.**

- Public authorities consider **most appropriate regulatory treatment** of stablecoins and how existing regulatory frameworks can and should be applied.

- The FSB and international standard-setting bodies assess **how existing international principles and standards could be applied.**

- Maintain the high level of **international coordination;** ensure a level playing field.