Central Bank Digital Currency
A central banker perspective
Jorge Ponce
“The changing nature and geography of global finance”
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(The views in this presentation are those of the author and not of the Banco Central del Uruguay)
CBDC: Is this the future?
Challenges and opportunities

- Maybe physical cash will not be the future
  - cashless economies
  - decentralized payment and settlement systems
- How to secure price and financial stability (even a safe payment system) without cash?
- New technologies would imply efficiency gains
  - cost of cash
  - financial inclusion
  - security in payments
- Need to balance efficiency gains in normal times against potential technological vulnerabilities and loss of confidence in stress times
Central banking in a new technological era

Blue: traditional financial channels
Red: new, digital channels
What has Banco Central del Uruguay done?

- Issue, put in circulation and test in the real world a Central Bank Digital Currency (CBDC) called e-Peso

- e-Peso is the Uruguayan Peso in digital
  - legal tender
  - security
A pilot plan for CBDC

- **Objectives:**
  - test a digital currency issued by the Central Bank
  - identify relevant issues for further analysis
  - keep risks under strict control

- **Preliminary assessment:**
  - legal framework is sufficient
  - cyber-security and related risks are under control
  - business continuity
The pilot plan

6 months
Nov. 17 to Apr. 18
(e-Peso bills are being destroyed now)

Limited bill issuance (20 million)

10,000 mobile phone users

Limited

$30,000 per wallet (aprox. 1000 USD)
$200,000 for registered business

Payment transactions in registered stores and business

Transfers P2P among registered users
<table>
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<tr>
<th>Participant</th>
<th>Description</th>
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<tbody>
<tr>
<td>BANCO CENTRAL DEL URUGUAY</td>
<td>Issues digital bills</td>
</tr>
<tr>
<td>antel</td>
<td>Provides telecom network</td>
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<tr>
<td>RGC</td>
<td>GSMT (Global Solutions for Money Technologies)</td>
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<tr>
<td>IBM</td>
<td>Storage, management, control of circulation and call center</td>
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<tr>
<td>IN Switch Solutions</td>
<td>Management of users, transfers and transactions</td>
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<td>redpagos</td>
<td>Cash-In and Cash-Out</td>
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Description of the system
Characteristics of the system

- Instantaneous settlement
- Does not require internet connection (just a mobile phone)
- Anonymous but traceable
  - users’ wallets and encrypted Global E-note Manager (GEM)
- Security improved
  - e-Pesos are secured at GEM even if users lose their phones or password of digital wallet
  - Unique, traceable bills prevent double-spending and falsification
- Unique bills would difficult exchangeability
  - but GEM makes change automatically
Experience and preliminary evaluation

- Very positive experience
- Develops according to expectations
- No technical incidents

- Mostly P2P transactions
- Increasing number of stores and business
- Banks interested in entering

- Potential prolific field for further innovation by banks and fintechs
- Potential to promote
  - financial inclusion
  - security, transparency and efficiency in payment systems
Future steps

- Further steps are under consideration
- Evaluation of potential impacts
- Assessment of other technologies
- Analysis to inform decisions regarding design and parameterization
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Thank you!