Central banking in a new technological era

11th Annual Conference RBWC & CRBP

José Manuel González-Páramo
Member of the Board of Directors and Head of Global Economics & Public Affairs, BBVA

19th of July 2019
About the history of money

- **680-560 BC**
  - During the Neolithic: Poor barter efficiency...

- **S. XIII**
  - The born of the coins with official character
  - Arrival of Marco Polo to Asia in the thirteenth century...

- **S. XVI**
  - Appears in China in the 9th Century but in Europe 1.300 years later...

- **S. XX**
  - The electronic credit and debit cards make their appearance

- **1971**
  - US abandoned the gold standard

- **S. XXI**
  - Together with Bitcoin, there are more than two thousand digital coins in circulation
# Issuance of digital currencies by central banks

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<tr>
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<th>CBDC to improve interbank settlement</th>
<th>CBDC similar to cash</th>
<th>CBDC as new policy tool</th>
<th>CBDC as public deposit</th>
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- **Universal Access**: ✔ Must be widely available to all users regardless of location or financial status.
- **Anonymity**: ✗ Higher risks of money laundering and terrorism financing.
- **Zero Yield**: ✓ Financed by the central bank at no cost to the users or institutions.
Cryptocurrencies: main weaknesses

Source: Own elaboration based on data from Bolsamania. Date from: 01/01/17 to 17/07/19 (Close price:$9,696.15)
Stablecoins: a potential alternative to cryptocurrencies

Main characteristics

Fiat backed

Reduce the volatility

Key to succeed: fiat assets stored in a secure and transparent manner

“J.P. Morgan Creates Digital Coin for Payments”

(J.P Morgan February 14, 2019) It is a digital coin representing United States Dollars held in designated accounts at JPMorgan Chase N.A. In short, a JPM Coin always has a value equivalent to one U.S. dollar.

“Coming in 2020: LIBRA”

(Facebook June 18, 2019) Facebook and its partners unveiled a global digital coin called Libra. Facebook will build a wallet, called Calibra, though a wholly owned subsidiary that it says won’t share financial data with the social network.
Libra structure and regulatory risks

Reserve custody
- Custodians
- Sovereign debt & deposits

Libra issuance
- Libra Association
- Authorised reseller
- Libras
- Cash

Customer interaction
- Wallet (crypto key custodian)
- Exchange
- Mint / Burn

Transaction record (blockchain)
- Validator
- Validator
- Validator

Prudential risks
- Financial stability
- Monetary policy

Customer

Prudential risks
- Soverign debt & deposits
- Interest

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Challenges for Central Banks

Fiat or asset-backed?
- Libra would be backed by government bonds
- Libra would be backed by “bank deposits”
- Financial stability risks could materialize if Libra became systemic

How supported?
- Support from CB’s in exchange of regulation
- Entering the business of maturity transformation
- Risk to “credit originations” (narrow banking) if Libra is so successful

How regulated?
- Regulation on deposits in foreign currency
- Electronic money regulations differ across jurisdictions
- Regulate KYC, AML and other policy goals would be ensured
Monetary policy: Additional open questions

1. How would the analysis and monitoring of inflation be carried out?

2. What would be the transmission channels of monetary policy?

3. What instruments would central banks count with under such scenario?
Expected outcomes of four CBDC schemes

1. Interbank settlement
   - Improved efficiency
   - Lowering management costs
   - Increasing competition

2. Payment system
   - Improved efficiency
   - Risk on CB infrastructure
   - Risk to increase informality
   - Impact on international flows

3. New policy tool
   - Getting rid of the zero lower bound
   - Cash is either banned or abandoned
   - Financial repression
   - Legitimacy issues

4. CB Deposit
   - Financial stability and lower informality
   - Credit might be extremely reduced
   - Questionable role for CB if they redirect funds to the financial system
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