



Creando Oportunidades

The digitalization of money

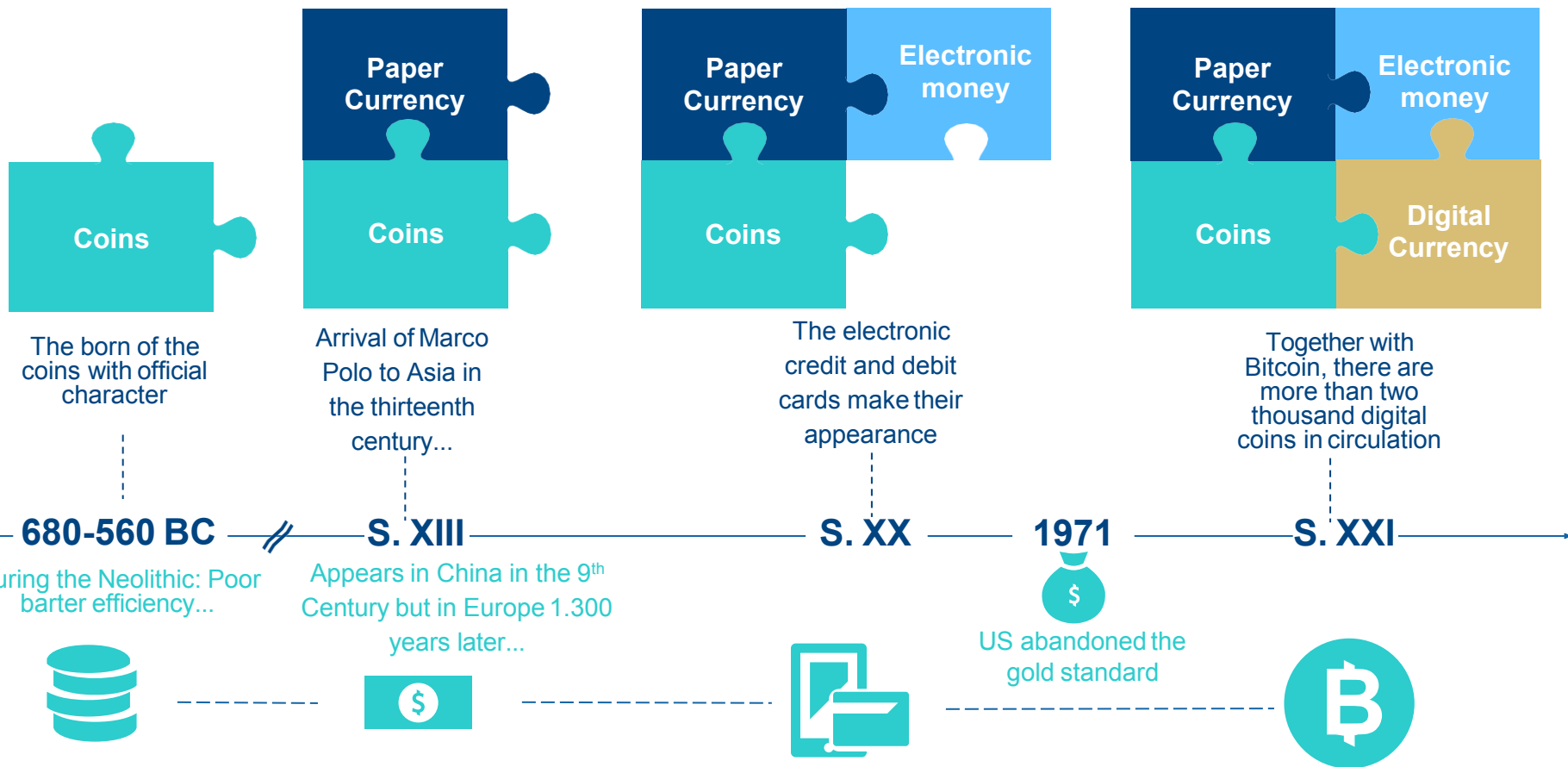
8th BBVA CIB Seminar

José Manuel González-Páramo

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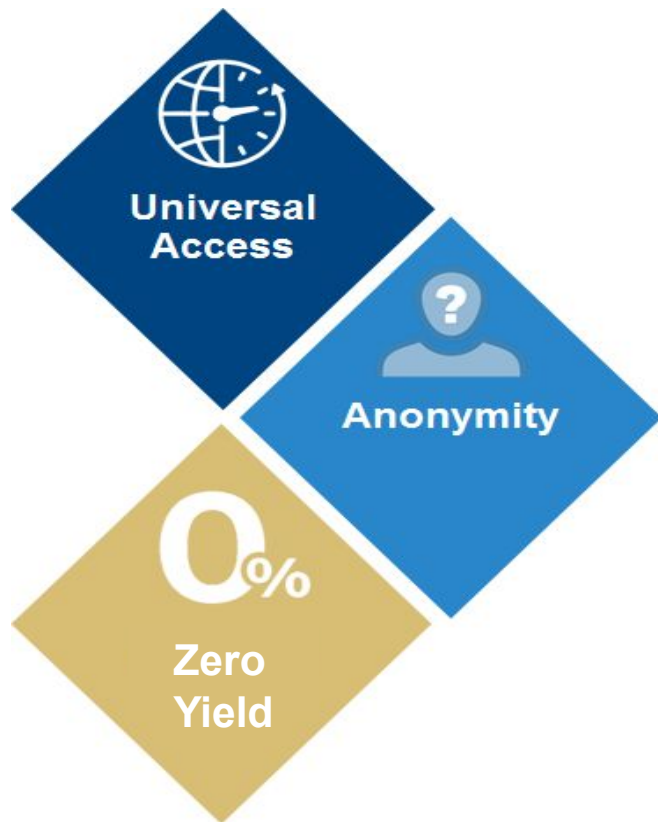
20th of June 2019

About the history of money



Money and cash: characteristics of and functions

Three features of cash:



Three basic functions ...

- 1 a medium of exchange
- 2 a unit of account
- 3 a store of value

Development of digital currencies

Hyperconnectivity

1

Computing capacity

2

Reduction of costs

3

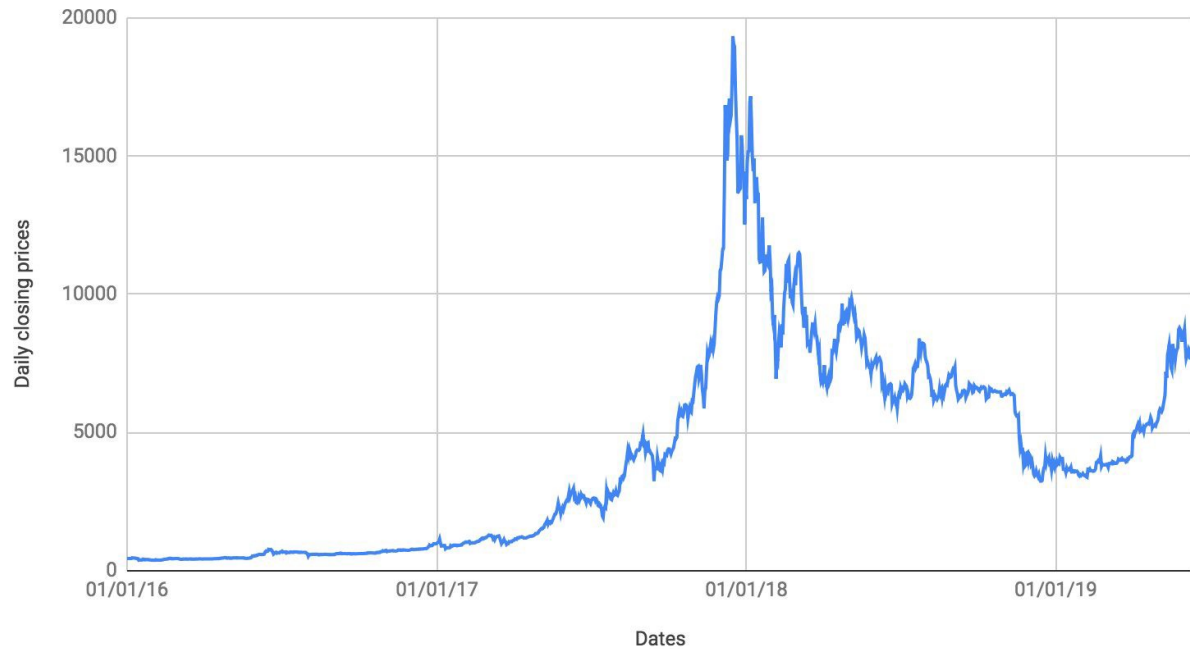
Cryptography

4

- Economies of scale and network are reinforced exponentially
- Rapid information flows at low cost and subject to security standards
- Decentralization of storage and verification processes
- Very intensive use of encryption and digital signature cryptographic algorithms
- Noticeable drop in the costs of communications and computers
- Moore's law: 50% cost reduction every two years
- Cryptography provide protection and security
- Trust is deposited in the cryptographic methods

Cryptocurrencies: main weaknesses

Bitcoin quotation



Source: Own elaboration based on data from Bolsamania. Date from: 01/01/16 to 13/06/19



Volatility



Anonymity



Operational risks



Electrical energy
consumption

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.

<https://www.jpmorgan.com/global/news/digital-coin-payments>



“Coming in 2020: Calibra” *A New Digital Wallet for a New Digital Currency*















≈libra

(Facebook June 18, 2019) Calibra is a newly formed Facebook subsidiary whose goal is to provide financial services. The first product Calibra will introduce is a digital wallet for Libra, a new global currency powered by blockchain technology.

<https://newsroom.fb.com/news/2019/06/coming-in-2020-calibra/>

Issuance of digital currencies by central banks

		Universal Access	Anonymity	Zero Yield
1	CBDC to improve interbank settlement			
2	CBDC similar to cash			
3	CBDC as new policy tool			
4	CBDC as public deposit			

Expected outcomes of four CBDC schemes

Interbank settlement

1

-  Improved efficiency
-  Lowering management costs
-  Increasing competition





Payment system

2

-  Improved efficiency
-  Risk on CB Infrastructure
-  Risk to increase informality
-  Impact on international flows

New policy tool

3

-  Getting rid of the zero lower bound
-  Cash is either banned or abandoned
-  Financial repression
-  Legitimacy issues

CB Deposit

4

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

Conclusions

1 Money is today subjected to an intense process of digital disruption, after twenty-five centuries of hegemony of cash

2 Bitcoin is the most important digital currency but different alternatives have been developed from the private sphere, **stablecoins**, or from the public sphere, still in a conceptual territory, such as **CBDC**

3 This continuous process of innovation seeks to materialize the advantages of digitization - **rapidity, globalization, decentralization, cost reduction, security, etc.**

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