

Digital Fiat Currency

The true alternative to physical currency

The single largest opportunity for Central Banks in fintech is to digitize cash

- \$75 trillion worth of cash transactions globally
- 85% of global consumer payments in cash
- Cash costs societies up to 2% of GDP with printing, distribution and destruction
- Over 2 billion people are confined to handle and transact only in cash (due to lack of access to formal financial services)

Source: World Bank; Cash transaction value is estimated based on eCurrency's benchmark on money velocity; Cash costs is estimated based on McKinsey's study, eCurrency research and analysis

eCurrency has developed the technology to digitize cash at the source – the Central Bank

“Digital Fiat Currency”

- Legal tender, alongside bank notes and coins
- Issued by the central bank
- Sovereign denomination
- Interoperable instrument
- Instant settlement
- Unparalleled system security



Key market drivers have put Central Banks at the centre of fiat currencies and financial services digitization

Market opportunity driven by digitization and technology development

- There is need for a truly cost efficient, secure, friction & risk free digital payment instrument for all, i.e. Digital Fiat Currency (**DFC**) to enable financial inclusion
- Internet connectivity and payments infrastructure are in place with substantial reach

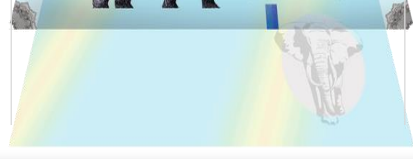
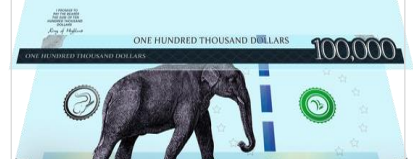
The illegitimate nature of Bitcoin has caused concern at central banks

- Blockchain / DLT has proven too slow and inefficient as a digital transaction platform
- Issuance of **Digital Fiat Currency** can only be secured at a central bank by eCurrency
- eCurrency's **Digital Fiat Currency** can transact on any payment platform in use today or on a future blockchain / DLT

Regulators need a sustainable solution to enable digitization of financial services and fiat currencies

- Sustained governance and monetary policy control
- Ensured transparency in digital financial services and transactions

The Core security technology leverages design principles from physical cash



Multi-layered security protocol with cryptographic and algorithmic layers to prevent counterfeiting and ensures M0

5 Key Layers of Security

Fluorescent pattern, micro text, holographic pattern	5	Dynamic tracking of instrument volume; intra payment system instant settlement; policy enforcement
Serial number with check digit and trap numbers	4	Issuer and distributor Identity and authentication
Information, e.g. currency unit, face value, issuing authority, signature	3	Currency unit, face value
Intaglio printing; security thread	2	Country specific digital fabric stock tracking
Special base materials, e.g. cotton fibres with linen, watermark added	1	Tamper resistant secure hardware handling cryptographic keys and instrument value



Digital Fiat Currency has all the beneficial characteristics of physical currency

Digital Fiat Currency is:

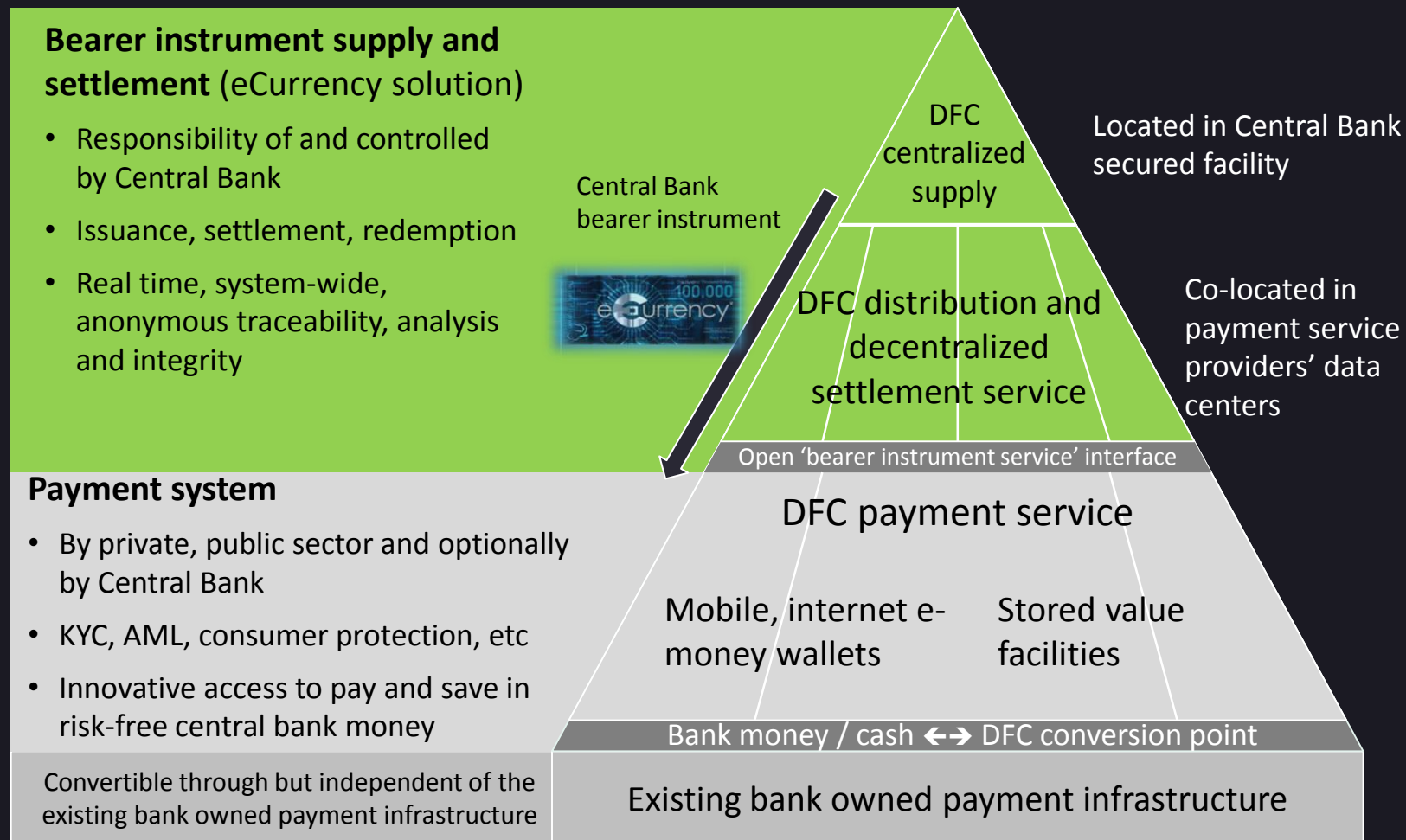
- Legal tender issued by the Central Bank
- Sovereign denomination
- Monetary base (M0)
- Universal and Interoperable
- Instant settlement
- True to the three tests of currency
 - ✓ Common unit of account
 - ✓ Store of value
 - ✓ Medium of exchange

Digital Fiat Currency is NOT

- ~~BITCOIN (cryptocurrency)~~
- ~~Blockchain (technology enabling BITCOIN)~~
- ~~Distributed Ledger Technology (DTL database for Blockchain)~~
- ~~Supra National Currency (Ripple XRP)~~
- ~~Initial Coin Offering~~

Segregation of supply & settlement from payment service using the bearer instrument

eCurrency digital fiat currency solution



The technology solution for issuing Digital Fiat Currency has three core elements

Issuance - Digital Fiat Currency Instrument

Legal tender • Issued by the Central Bank • Sovereign

Denomination • Interoperable • Instant Settlement



The eCurrency Technology Distribution

Hardware Security • Advanced Cryptographic Security

Scalable Performance • Technology Agnostic

FIPS 140-2 LEVEL 4 • 99.99% availability

Complete Transparency & Visibility

Real time data • Eco-system wide aggregated and transaction level circulation statistics, e.g. number of transactions, value, frequency and distribution



Distribution of a Digital Fiat Currency is similar to physical currency

Secured issuance



Governance & Monitoring



Central Bank

Dashboard

Distribution

Wholesale



Commercial Banks

eCurrency Plates

Interoperable

Retail



Mobile, internet e-money wallets

Peer-to-peer



Merchants & Consumers

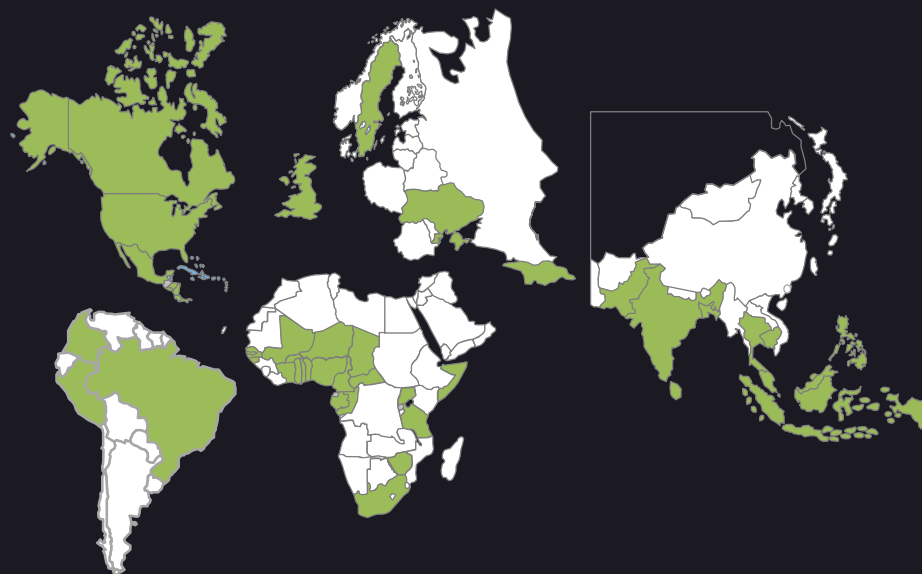
Standards for Digital Fiat Currency under development



- Focus Group on Digital Currency for International Telecommunications Union (UN Agency for information and communication technologies)
- eCurrency selected as US Expert to ISO TC 68 SC 2 on Digital Currency Security
- Foreign exchange is being addressed in ISO digital currency group
- Member of U.S. Federal Reserve “Security Payment Working Group’s Standard Assessment Subcommittee”
- Board of directors of ANSI X9 workgroup AB and F (payment, data and information security)
- Appointed US Core Banking standard organization X9 board member
- Participated in Global Platform Trusted Execution Environment (TEE) technical specification review

Actively engaging with 30+ central banks on potential of DFC implementation

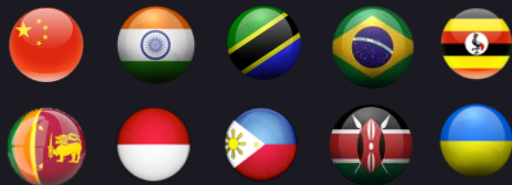
- Pilots in 3 markets since 2012
- Commercial Deployment in Africa in November 2016
- Planned Rollout in 3 new markets in Europe and Asia in Q4 2017



Digital Fiat Currency in the context of developing and developed markets

Developing country priority

- Statutory responsibility
- Governance and Control
 - Monetary policy
 - Systemic risk reduction
- Financial inclusion
 - Ultimate trusted financial instrument
 - Universal access
 - More affordable financial service
- Interoperable
- Lower cost of cash



Digital Fiat Currency

Developed country priority

- Statutory responsibility
- Governance and Control
 - Monetary policy
 - Systemic risk reduction
- Trusted financial instrument
- Macro-economy benefits | Growth
- Efficiency



Thank you



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