

Transforming Money and Payments

November 2023

Douglas W. Arner
Kerry Holdings Professor in Law
Associate Director, HKU-Standard Chartered Foundation FinTech Academy
RGC Senior Fellow in Digital Finance & Sustainable Development
University of Hong Kong
Douglas.arnier@hku.hk

- Stablecoins: Risks, Potential, Regulation – BIS Working Paper no. 905 (Nov. 2020) – Arner, Frost, Auer: <https://www.bis.org/publ/work905.htm>
- The Markets in Cryptoassets Regulation (MiCA) and the EU Digital Finance Strategy (Oct. 2020) – Zetsche, Annuziatto, Arner, Buckley: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3725395

- [Monetary Hegemony, Technological Evolution and the International Monetary System by Douglas W. Arner, Ross P. Buckley, Dirk A. Zetsche, Anton N. Didenko :: SSRN](#)
- CBDCs: Future of Money and Payments
- Buckley, Zetsche, Arner, Didenko
- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3622311
- [Regulating LIBRA: The Transformative Potential of Facebook's Cryptocurrency and Possible Regulatory Responses](#)
- [Zetsche, Buckley, Arner](#)
- https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3414401

Central Bank Functions and Evolution

- Monetary policy / stability
- Financial stability (positive / negative)
- Payments
- Supervision
- Development / inclusion (SDGs / innovation)
- Central banks as technology

Money, payment and technology

- Technological revolution in money and payment: decentralised / centralised
- Money, payments, finance and the technological horizon
- RTGS / mobile money / Alipay / WeChatPay
- FPS
- Bitcoin
- Blockchain
- Stablecoins
- Libra: G20 GSCs, CBDCs, G20 crossborder payments initiative
- Covid19
- Digital Yuan: eCNY
- CBDCs
- UPI / Pix

Finance in the 2020s: Pandemic Impact

- Technology
 - Digitisation: track / trace / test / ecommerce etc
 - BigTech / scale
 - Infrastructure
 - CBDCs
 - Techrisk
- Sustainability
 - Development
 - Travel
 - Small businesses
 - Future crises: resilience? (jared diamond): digital ID / simplified account opening / eKYC / electronic payment (CBDCs?)
- Globalisation / fragmentation
 - Trade patterns
 - Movement
 - Finance / money
 - Geopolitics

Money

- Medium of exchange
- Store of value
- Unit of account: social / legal / sovereign

- Plus
- Payment: mobilisation
- Finance: time

CBDCs: Structure – Legal and Regulatory Aspects

- Money vs payment
- Public / private / public-private / independent
- Structure: account / token / blockchain?
- Access: Retail (two tier, centralised) / wholesale (RTGS), domestic / foreign
- Interoperability? Cashless? Interaction with cash, other currencies etc
- Governance
- Liabilities?
- Finality
- Security
- Privacy
- Competition
- International / regional context

eCNY Rationale

- Monetary policy
- Financial crime
- Social policy
- Technology and innovation
- Global geopolitics
- Risk management

Digital Euro

- EU Digital Finance Strategy 2020
- ECB Digital Euro (2020)

Stablecoins

- E-money
- Bank deposit
- MMF
- Derivative

- Regulated stablecoins
- Synthetic cbdcs
- Tokenised deposits / MMFs etc

Looking forward

- Technology
- Structure: money, payment, hybrid
- Rationale:
- Major currencies
- Others – individual circumstances
 - IFCs
 - Developed economies
 - Emerging / Developing economies
- Most: payment focus
- International / regional systems

International Money and Payment Arrangements

- Cross-border payments: G20 / CPMI / Libra / SWIFT etc
- International arrangements? Nexus, mBridge etc

A framework of contextual analysis

- The key is to analyse your own context. I suggest looking at 7 different aspects, derived from AFI FinTech4FI strategy, of which the level of development of the commercial banking system is only one:
- 1. Digital inclusion? Mobile penetration? Smart phone penetration? Geography? Excluded population characteristics?
- 2. Money and payments: how widely used is cash? Payments systems: RTGS / FPS / mobile payments? Interoperability?
- 3. Banking system? financial inclusion: bank accounts, other accounts?
- 4. National ID / digital ID / KYC/ekyc framework?
- 5. Economic context: trade linkages? remittances? tourism? etc
- 6. Legal context: does the central bank have payment systems supervision / authorisation? does the currency issuance / monetary stability authority extend to digital?
- 7. Capacity: internal in the central bank? public digital awareness? business?

- Framework summary: <https://nextbillion.net/economic-fintech-innovation-financial-inclusion-covid19/>
- Detailed FT4FI strategy: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3387359

Thank you!

Introduction to FinTech – on edX:

<https://www.edx.org/course/introduction-to-fintech>