Digitalisation - Challenges and opportunities for central banks

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Overview

• Background on digitalisation

• Challenges for central banks – the disruptive effects of digitalisation

• Digitalisation – a potential opportunity for redefining central banks’ action

• Digitalisation – a wide array of actions for central banks
Digitalisation – background

• Possible **definition**: combination of proliferation of mobile devices, use of internet based technology and leverage of data analytics in the interaction between market agents (U. Milkau and J. Bott, *Digitalisation in payments, Journal of payments strategy and system, 2016, vol. 9 n. 3*)

• Change affecting the **society** at large

• In the **financial sector**:
  • uncertainty implied by **disruptive technologies** (in particular DLT) and
  • regulatory support for **opening-up market access** by introducing legal certainty to previously unregulated services and actors (e.g. PSD2)
Risk of (renewed) fragmentation

- Tendency to build **closed-loop solutions or silos**
- At the **European** level in particular: important challenge to the financial integration process achieved (e.g. SEPA)

Rightarrow Need to ensure **interoperability** not only by standardisation at the technical level but also by harmonising business processes in a commensurate legal environment

Rightarrow Central banks’ action as **catalyst** facilitates this effort bringing together relevant actors given network characteristics of industry:
  - E.g. Euro retail payments in the EU – Euro Retail Payments Board and envisaged coordination of national payment committees
  - E.g. Advisory Group on Market Infrastructures and substructures (incl. DLT Task Force)
Risks for the safety and stability of the financial ecosystem

• Multiplication of actors and higher circulation of personal data: potential new cyber risks

• Potential new transmission mechanisms for systemic shocks: possible long-term impact on financial stability

⇒ Require coordination of actions:
  ⇒ Regulators’ existing guidance (CPMI-IOSCO, G7)
  ⇒ Monitor market evolution before assessing whether need for further regulatory steer
What potential use cases to be studied?

• General analysis:
  – Could current Eurosysten services (TARGET2 / T2S) safely and efficiently run on DLT?
  – Joint assessment with Bank of Japan has been launched

• Concrete feasibility study:
  – Could potential new services be based on DLT (e.g. offering issuance service to CSDs)?

• Holistic perspective:
  – Should central banks support DLT-based market solutions to allow efficiency gains in the market?

• Multidisciplinary research:
  – Should central banks provide central bank digital currency (CBDC) to households? In what form? What would be the impact on the economy?
**Standardisation and harmonisation**

- New technologies must not jeopardise Financial market integration efforts
  - How to facilitate adoption of innovation that may improve *financial market integration* and supports Capital Markets Union (CMU)?

- Two dimensions:
  - Different **DLT solutions** need to smoothly interact
  - DLT needs to interoperate with *legacy systems*

- Coordinated efforts are necessary to harmonise potentially DLT-enabled business processes at the **industry** level and with *public authorities*
  - Euro retail payments in the EU – **Euro Retail Payments Board** and envisaged coordination of national payment committees
  - **Advisory Group on Market Infrastructures** (incl. DLT task force)
The importance of the oversight perspective

Fintech and regulatory aspects: not stifle innovation

• What impact on regulation (e.g. oversight frameworks)?

• Main questions:
  – Is regulation agnostic to underlying technology?
  – Is there a need for dedicated regulation or adapting existing regulation?

• Assess how FinTech could help cover data requirements (“RegTech”)

• CPMI analytical framework for central banks and other authorities to review and analyse the use of DLT in payment, clearing and settlement activities
Conclusion: Digitalisation – a wide array of actions for central banks

- Digitalisation has the potential to make processes faster, cheaper and generally more efficient

- Importance of cooperation reinforced, between
  - Central banks (at EU and global level)
  - Regulators (at EU and global level)
  - Relevant actors of this network industry to avoid coordination failures
  - Authorities and industry for cross-fertilisation

- Need for further analysis
  - On potential for central banks in particular for DLT considering multi-disciplinary dimension
  - On the impact on Central Banks’ role
A reflection still in relative infancy....

....a long journey...