

Financial Market Infrastructure and New or Emerging Payment and Securities Systems *

**Law and financial stability high level seminar 2018:
the rule of law in a digital world**

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Klaus M. Löber
Head of Oversight
European Central Bank

Financial Market Infrastructures (FMIs)

- **Financial Market Infrastructures (FMIs)** are sophisticated multilateral arrangements among participating financial institutions that handle significant transaction volumes and sizable monetary values
- FMIs encompass *payment, clearing and settlement systems* as well as *trade repositories*
- FMIs *strengthen the markets* they serve by enhancing risk management and play a critical role in fostering *financial stability*
- On the other hand, FMIs *concentrate risk* – not the least through *interdependencies* – and can be sources of credit losses, liquidity and collateral dislocations and ultimately *systemic risk*

Sources of law and requirements for FMIs

- **Private law**
 - Substantive law (e.g. holding and transfer of *property*, liability, ...)
 - Corporate law (legal organisation of FMIs and operators)
 - Insolvency law (incl. *finality*)
 - Conflicts of law regimes
- **Public law**
 - Legal basis for operation of FMIs (*authorisation*, ...)
 - *Oversight* and supervisory regime (safety and efficiency based on *CPMI-IOSCO PFMI of 2012*; governance, risk management, client protection, KYC, AML, reporting, ...)
 - Financial stability (*recovery and resolution* regimes)
- **FMI rule books and contracts**
- **Technical standards**
 - Message/data standards/identifiers
 - Models/protocols/codes?

Digital innovations and financial market infrastructures

- ***Distributed ledger technology and other digital innovations*** have the ***potential to induce change across the value chain***
 - Issuance, trading, payments, clearing and settlement
 - Data and identity management as well as regulatory reporting
 - Transfer of assets, record of ownership and asset services
- ***Pressure on business models, risk management and regulation***
 - ***Challenges to the intermediary function*** of FMIs
 - Market entry of ***new (unregulated) entities***
 - ***Changing user expectations*** in terms of speed, cost, transparency
- **Various possible scenarios**
 - ***Disintermediation*** by peer-to-peer networks
 - ***Usage*** of new technology by legacy FMIs to improve internal efficiency
 - ***New FMIs offering DLT based services***

Implications for central banks

Monetary policy and service provider role

- assessing potential of digital innovations for efficient and safe central bank infrastructure services for settlement of payments and securities
- assessing impact on monetary operations and central bank money issuance

Catalyst role

- facilitating private sector efforts to improve market efficiency
- promoting work on standardisation and interoperability, countering the risk of silos and proprietary solutions

Oversight, supervisory and financial stability role

- assessing possible impact of technology adoption on overseen/supervised entities and their business models and the financial markets at large
- adapting central bank frameworks for data collection and handling

CPMI Working Group on Digital Innovations

- Established in **February 2016** to assess the :
 - *potential impact on the financial market infrastructure*
 - *potential impact on central bank functions*
- Development of an **analytical framework (February 2017)** to *analyse the implications of innovative technology for payments, clearing and settlement*
- Analysis of the **implications of first generation cryptocurrencies**
- CPMI-IOSCO assessment of the **application of the PFMI to DLT based FMs**
- CPMI-Markets Committee joint report on **central bank digital currencies (March 2018)**
- Further work underway, including on *wholesale digital currencies, legal aspects* and *cross-border issues*

CPMI analytical framework (February 2017)

- Guidance on **understanding the arrangement (scope)**
 - Functionality and nature of the arrangement
 - Key factors for an effective implementation
- Potential implications for **efficiency, safety and the broader financial markets**

Efficiency	Safety
Speed of end-to-end settlement Costs of processing Reconciliation (speed, transparency) Credit and liquidity management Automated contract tools	Operational and security risk Settlement issues Legal risk Governance Data management and protection
Broader financial market implications	
Connectivity issues and standards development Financial market architecture (actors, markets, regulators) Broader financial market risks (micro- and macro-level)	

Legal status and qualification of digital assets

- Legal status of digital assets, e.g. a **claim, a representation of a claim, property**, something else?
 - in **account-entry form** and in **tokenised form**?
 - with **underlying assets** (eg escrow, pre-funding)?
- **Existing legal regime** for deposits, for e-money or for other financial instruments applicable to digital assets?
- Uncertainties and **recharacterisation risk**?

Legal underpinning of holdings and transfers of digital assets

- How to **hold and dispose** digital assets on-ledger or off-ledger?
- When does legal **finality** occur or an obligation be **discharged**?
- Could digital assets be used as **collateral** or be **set-off or netted** against other forms of claims or obligations?
- How would digital assets be treated in an insolvency?
- **Liabilities** for fraud, cyber attacks, theft, erroneous transfers, weaknesses of the underlying technology or consumer protection?

Applicable law, jurisdiction and conflicts of laws

- Which jurisdiction **governs** the issuance, holding and disposition?
- What **conflicts of law** issues could arise in a cross-border constellation (e.g. foreign usage of digital assets, holdings by a non-domestic entity, etc.)?
- How would be the **relevant forum** be determined?

Legal status and requirements for providers of supporting technical infrastructure such as distributed ledger technology

- What would be the legality, nature and enforceability of the **records/entries kept on a distributed ledger**?
- To what extent may a DLT protocol (or smart contracts) replace provisions typically found in contractual agreements?
- What would be the legal status of the DLT provider (eg a service provider, a system operator)?

Some key issues going forward

For traditional and new FMIs and infrastructures service providers

- **Automatisation and resilience** (automated execution of processes, smart contracts)
- **Process integration** (ability for DvP, nexus to central bank money)
- **Network effects** (technical standardisation, avoiding fragmentation)
- **Governance** (rules/protocols, control of access, risk management)
- **Regulatory compliance** (support KYC, AML, regulatory reporting, but also: consumer protection, data secrecy and privacy rules)

⇒ Continued relevance in the financial sector for FMI-like services

Some key issues going forward

For authorities

- **Regular review of adequacy of regulatory standards**
 - **Avoidance of competitive advantages** for newcomers or incumbents by applying different requirements for the same risks
 - “**Observer nodes**”/SupTech could enhance monitoring of FMIs and facilitate oversight activities, but may create moral hazard
 - Possible **need to rethink certain legal concepts** (formation of contracts, finality, DvP, etc.)
- ⇒ Need of relevant knowledge within regulators and overseers to comprehensively understand technology, underlying protocols/codes, and to adequately assess their functioning