



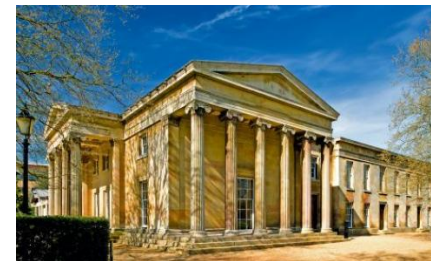
# Training Course/Seminar Series

## **Effective Oversight of Financial Market Infrastructures**

Downing College, Cambridge  
10-13<sup>th</sup> September 2019

## **The Oversight Framework: Key Changes and Challenges**

Richard Heckinger  
Course Chair



# Key Changes and Challenges

- Evolution of the Financial Market Infrastructure landscape
- Overview of key challenges, developments and disruptive forces
- Examples of cross-jurisdictional cooperation and coordination
- Discussion: what are the key features of the FMI landscape in the delegate home jurisdictions?

# Richard Heckinger

- Former Vice President and Senior Policy Adviser, Federal Reserve Bank of Chicago
- Contributing Editor, *Central Banking Journal*
- Associate Editor, *Journal of Financial Market Infrastructures*
- Member, Editorial Advisory Board, *Global Commodities Applied Research Digest*

## **The oversight framework: key changes and challenges**

The FMI oversight landscape in 2019 faces numerous challenges: from the rate and volume of innovations to demands from consumers, to a growing sophistication of cyberattacks. Three questions stand out: how are new technologies disrupting the traditional oversight landscape? Should central banks be worried about the rate and level of innovation? How can central banks best prepare themselves for the future of oversight? In this introductory session, the chair will outline the oversight landscape as it stands, including challenges in the need for cross-border co-operation and information sharing. Delegates will be invited to discuss the main obstacles their central banks face, and to set objectives to find solutions to these obstacles as the week goes on.

The information herein has been compiled from publically available information.

# Our Course Objectives

- Definitions
  - Scope issues
  - Terminology
  - Regulatory/oversight priorities, challenges
- Present state of the world
  - Still some effects of the financial crisis
  - Technological/financial innovation continue apace
  - Regulatory principles are still being written/implemented

# Our Course Objectives

- Our FMIs, scope
  - Payment systems
  - Central securities depositories (CSDs)
  - Securities settlement systems (SSSs)
  - Central counterparty clearinghouses (CCPs)
  - Trade repositories (TRs)
  - Bank ownership of FMI
- Financial Technology (FinTech) more generally as market infrastructure
  - It is not only what the tech does, but the tech itself
  - Processes and financial products require oversight

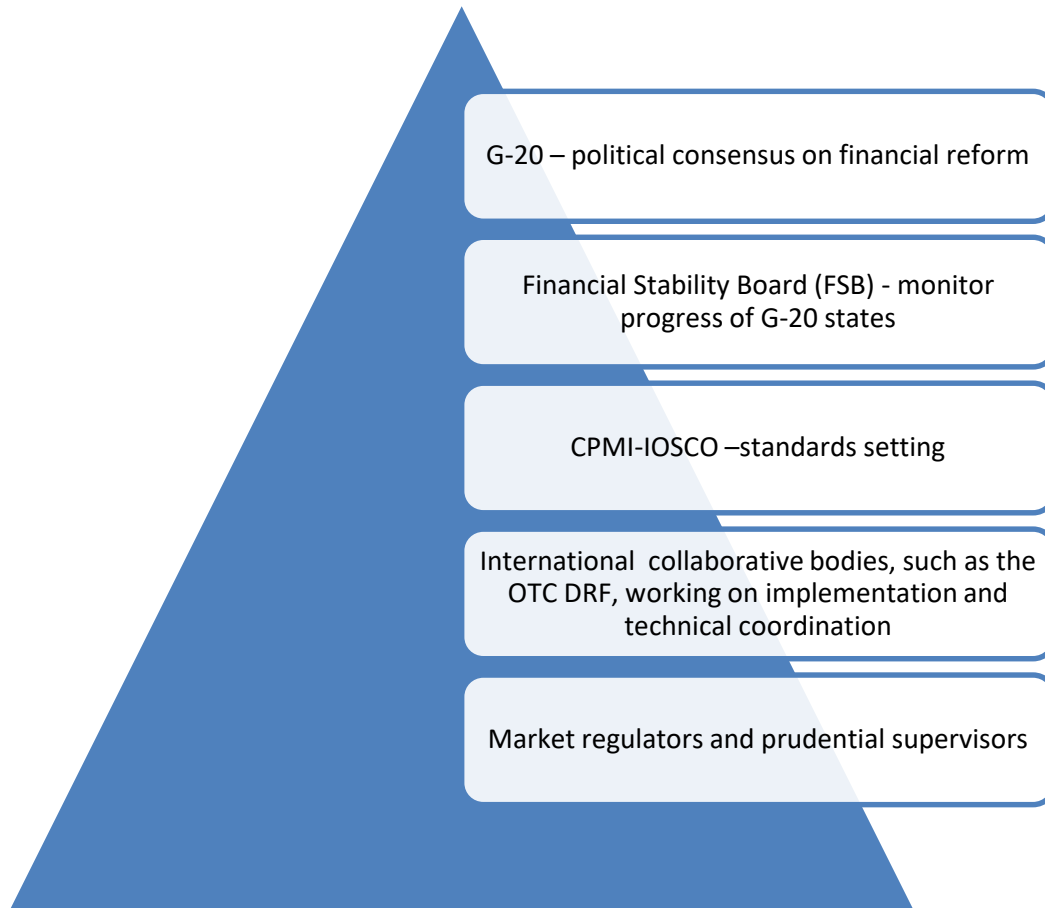
# Our Course Objectives

- Oversight challenges
  - Technological changes/innovations
  - New players
  - Pace of change
  - Responsibility/authority/jurisdiction
  - Managing expectations
- What are the obstacles?



# The state of the world

- G-20 Group objectives, echo of the financial crisis:
  - Increase transparency of pricing and risks
  - More systemic risk management
  - Promote standardisation of products and processes
- Legislation; regulation; rules; principles
  - Basel capital
  - Principles for financial market infrastructures (PFMIs)
  - Consultation and guidance initiatives
  - Progress reports; FSB as secretariat



# Legislative actions regarding FMI

- EU, European Market Infrastructure Regulation (EMIR)
- USA, Wall Street Reform and Consumer Protection Act (Dodd-Frank Act)
- Japan, modification of existing laws
- Australia, laws are deemed basically adequate but some changes possible
- Canada, some changes to provincial laws
- Hong Kong, Singapore, consultation and legislation

# What standards do we have?

- PFMI, April 2012, by CPMI & Technical Committee of IOSCO
  - Its scope covers payment systems (PSs), central securities depositories (CSDs), securities settlement systems (SSSs) central counterparties (CCPs) and trade depositories (TRs)
  - 24 principles
  - Subsequent progress reports and guidances

# What standards do we have?

- Principles (24 in all) cover these categories (among others)
  - General organisation
  - Credit and liquidity risk management
  - Settlements
  - CSDs and SSSs
  - Default management
  - Business and operational risk
  - Access
  - Efficiency
  - Transparency

# FMI Oversight Issues

- Governance/ownership of FMIs
  - “Utility” aspects versus for-profit commercial ventures
  - Bank ownership of FMI—disallowed or required?
  - Membership/access requirements—set high or low?
  - Conflicts of interest/information issues—how to recognise/manage?
  - Operational standards, *de facto* need to use certain systems
- Competition among FMIs
  - Multiple CCPs do compete with different business models
  - Multiple TRs—it is now a fact—how to coordinate?

# FMI Oversight Issues

- New, “disruptive” technologies
  - Distributed ledger technology (DLT), also known as blockchain
  - Digital versus Crypto currencies
    - Most of our money is already digital
    - Crypto currencies are new fiat currencies
  - Algorithmic trading
    - High speed—are there systemic risks a CB should care about?
    - Not only high speed (fast), but high frequency (often)

# FMI Oversight Issues

- New financial instruments and systems
  - Crypto currencies as “investments”
  - Private payment systems
  - Central Bank Digital Currencies (CBDCs)
  - e-Currencies
- “Big Data” —banks are now into data mining, cross-selling of products and services
- Shadow banks, private money
- How to sponsor/manage/regulate sandbox and innovation initiatives



# “Fintech and risk: what does the future hold?”\*

- Regulating the blockchain as critical infrastructure
- Making the cloud safer
- Supervising artificial intelligence (AI)
- Defending against cyber risk
- Using fintech to strengthen supervision

\*by Ravi Menon, managing director of the Monetary Authority of Singapore  
At: <https://www.centralbanking.com/author/ravi-memon>

# FMI Oversight Issues

- Operational risks
  - Resilience
  - Business continuity standards
  - Cyber threats
- Network effects
  - Concentration
  - Contagion
  - Interdependencies

# FMI Oversight Issues

- Competition questions
  - FMIs as natural monopolies?
  - How many are too few versus too many?
  - Competition is a fact; what is the trend? More or less over time?
  - Regulators do not want to choose winners and losers, and do not want to stifle innovation

# FMI Oversight Issues

- Jurisdictional matters
  - Home country regulations, oversight groups, MOUs and data sharing
  - Extra-territoriality
  - “Home” regulator of the FMI
  - Country of the issuing currency
  - Country of a reference entity (e.g., credit default swaps)
  - How to limit opportunities for regulatory arbitrage
  - Protectionism is a risk to international cooperation

# FMI Oversight Issues

- Collateral and capital requirements
  - The meaning of “systemic risk”
  - Recovery/resolution of FMIs (CCPs in particular)
  - Proper placement of risk incentives versus moral hazards

# FMI Oversight Issues

- Mandatory use of some FMI that is outside of a home jurisdiction
  - Access to CCPs in particular (as mandated regarding certain derivatives)
    - Extra costs and risks due to need to go through intermediaries
    - Denial of access, then where to?
    - Disparities, such as one side to a contract has access and the other doesn't
  - *Situs* of contract law covering
    - Bankruptcy of participant(s) and/or a CCP
    - The financial (especially derivatives) contract itself
- Interoperability
  - Among CSDs, in particular
  - Cross-border payments systems, and also domestic

# FMI Oversight Issues

- Scope of regulatory authority might require legislation
- Regulations must then be written according to the requirements and allowances of the applicable laws
- Policies, procedures, operational standards and best practices must be adopted or revised to reflect new requirements
- Supervisory standards must be set to cover new issues of scope and compliance
- Must, or should, Central Banks “know it all” regarding FMI?
- Still a work in progress!

# Useful FMI Oversight Documentation

- [Recovery of financial market infrastructures](#): provides guidance to FMIs such as CCPs on how to develop plans to enable them to recover from threats to their viability and financial strength, along with guidance to relevant authorities in carrying out their responsibilities associated with the development and implementation of recovery plans.
- [Resilience of central counterparties \(CCPs\): Further guidance on the PFMI](#): aims to improve CCPs' resilience by providing guidance on the principles and key considerations in the PFMI regarding financial risk management for CCPs.
- [Guidance on cyber resilience for financial market infrastructures](#): provides guidance on the preparations and measures that FMIs should undertake to enhance their cyber resilience capabilities in order to limit the escalating risks that cyber threats pose to financial stability.

At: [https://www.bis.org/cpmi/info\\_pfmi.htm](https://www.bis.org/cpmi/info_pfmi.htm)



# Useful FMI Oversight Documentation

- [\*Clearing of deliverable FX instruments\*](#): clarifies the expectations of the CPMI and IOSCO with respect to CCP clearing of deliverable FX instruments and the associated models for effecting their settlement.
- [\*Application of the Principles for financial market infrastructures to central bank FMIs\*](#): provides guidance on how the *PFMI* apply to financial market infrastructures that are owned and operated by central banks.
- [\*Public quantitative disclosure standards for central counterparties\*](#): sets out the quantitative data that CCPs should publicly disclose regularly.
- [\*Assessment methodology for the oversight expectations applicable to critical service providers\*](#): establishes an assessment methodology and provides guidance for authorities in assessing an FMI's critical service providers against the oversight expectations set out in an annex to the *PFMI*.
- [\*Principles for financial market infrastructures: disclosure framework and assessment methodology\*](#): promotes consistent disclosure of information by FMIs and consistent assessments by international financial institutions and national authorities.

At: [https://www.bis.org/cpmi/info\\_pfmi.htm](https://www.bis.org/cpmi/info_pfmi.htm)