



## **Panel On Payment Services / FX products Innovations in retail payments\***

**AEDBF 25th anniversary:**

**25 years of banking and financial law - General trends**

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## Outline

- The BIS and the Committee on Payment and Settlement Systems
- The financial crisis and OTC derivatives markets reform
  - The role of international standards
  - Consistency
- Retail payments
  - Innovations in retail payments
  - The role of non-banks
  - Virtual currencies
  - Security issues and cyber security
  - Issues and challenges for central banks and authorities



## The Bank for International Settlements (BIS)

*“The mission of the BIS is to serve central banks in their pursuit of monetary and financial stability, to foster international cooperation in those areas and to act as a bank for central banks”*

The world’s oldest international financial institution, established under the Hague Convention of 1930

The BIS pursues its mission by:

- promoting discussion and facilitating collaboration among central banks and with other authorities responsible for promoting financial stability
- conducting research on policy issues confronting central banks and financial supervisory authorities and providing statistics
- hosting committees and secretariats of regulatory bodies
- acting as “bank for central banks”

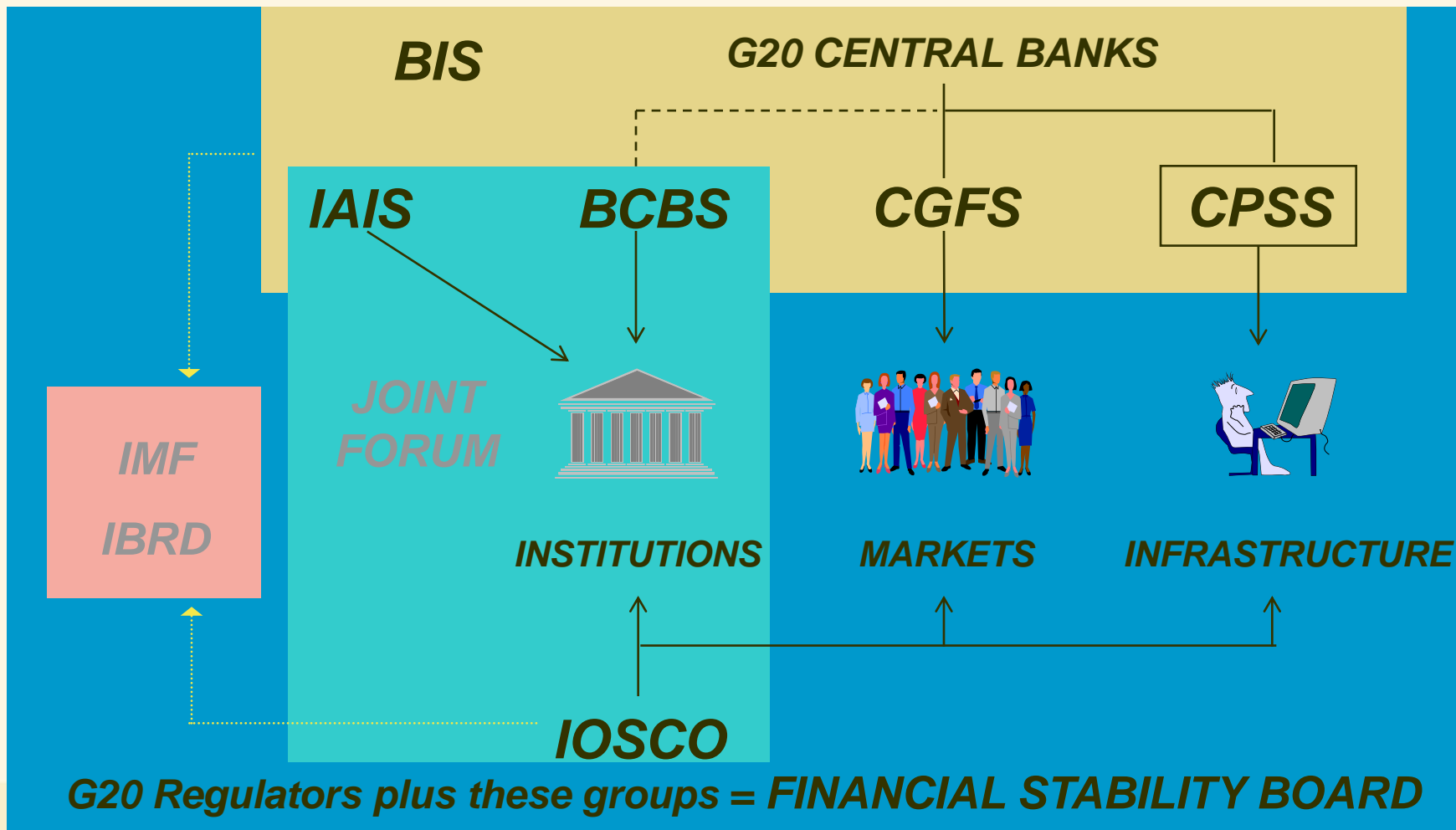


## The Committee on Payment and Settlement Systems

- ⇒ The CPSS is a **standard setting body** for payment, clearing and securities settlement systems. It also serves as a forum for central banks to **monitor and analyse developments** in domestic payment, clearing and settlement systems as well as in cross-border and multicurrency settlement schemes
- Establishment in 1990 by the G10 Governors (preceded by the 1980 **Group of Experts on Payment** and the 1989 **Committee on Interbank Netting Schemes**)
  - Hosted by the BIS in Basel, reporting to the Governors of the Global Economy Meeting (GEM)
  - 25 member central banks
  - Chair: Benoît Coeuré (ECB)



## The “Basel process”





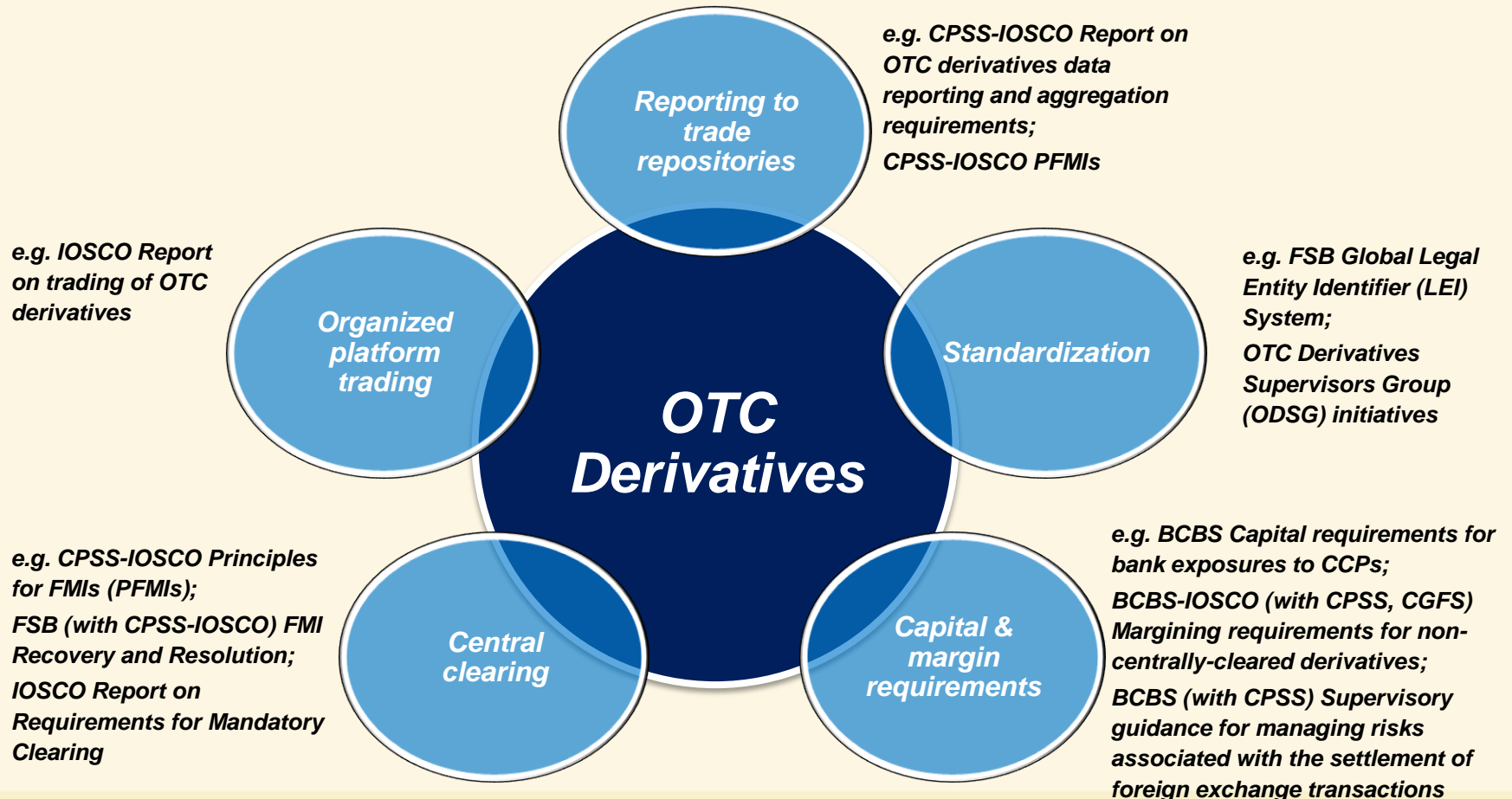
## OTC Derivatives Market Reforms

### G20 recommendations - Pittsburgh communiqué of September 2009

- **Trading and Clearing:** All standardised OTC derivative contracts should be traded on exchanges or electronic trading platforms, where appropriate, and cleared through central counterparties (CCPs) by *end 2012* at the latest
  - **Reporting:** OTC derivative contracts should be reported to trade repositories (TRs)
  - **Non-centrally cleared contracts** should be subject to higher capital requirements
  - The **FSB** and its relevant members should assess regularly progress and whether it is sufficient to improve transparency in the derivatives markets, mitigate systemic risk, and protect against market abuse
- ➔ ***Standard setting bodies to strengthen their risk management standards***



## OTC Derivatives Market Reforms



**Overall coordination: OTC Derivatives Coordination Group (ODCG), composed of Chairs of BCBS, CPSS, CGFS, IOSCO and FSB**



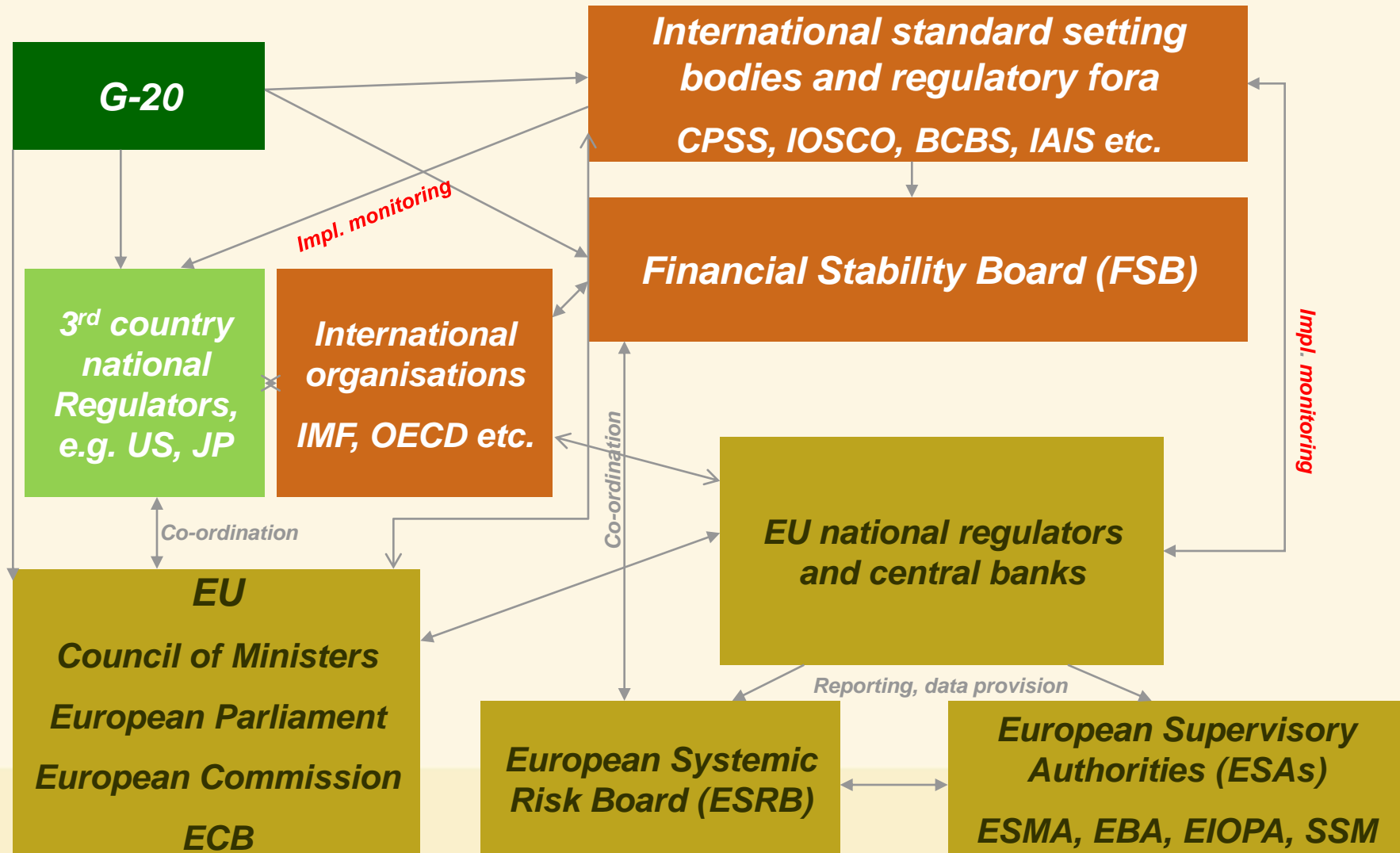
## **Interaction of regulatory, legal and market initiatives**

- Global standards (e.g. BCBS Capital requirements, CPSS-IOSCO FMIs principles, FSB Key attributes)
- Legislative/regulatory measures (e.g. infrastructure legislation, capital requirements, crisis management / resolution regimes)
- New regulatory structures (Financial stability bodies, resolution authorities, cross-border colleges and crisis management groups)
- Infrastructure/market initiatives
  - Development of new infrastructures (CCPs, Trade repositories)
  - Voluntary commitments by the industry (e.g. OTC clearing commitments)
  - Harmonisation of technical standards and services (e.g. LEI)



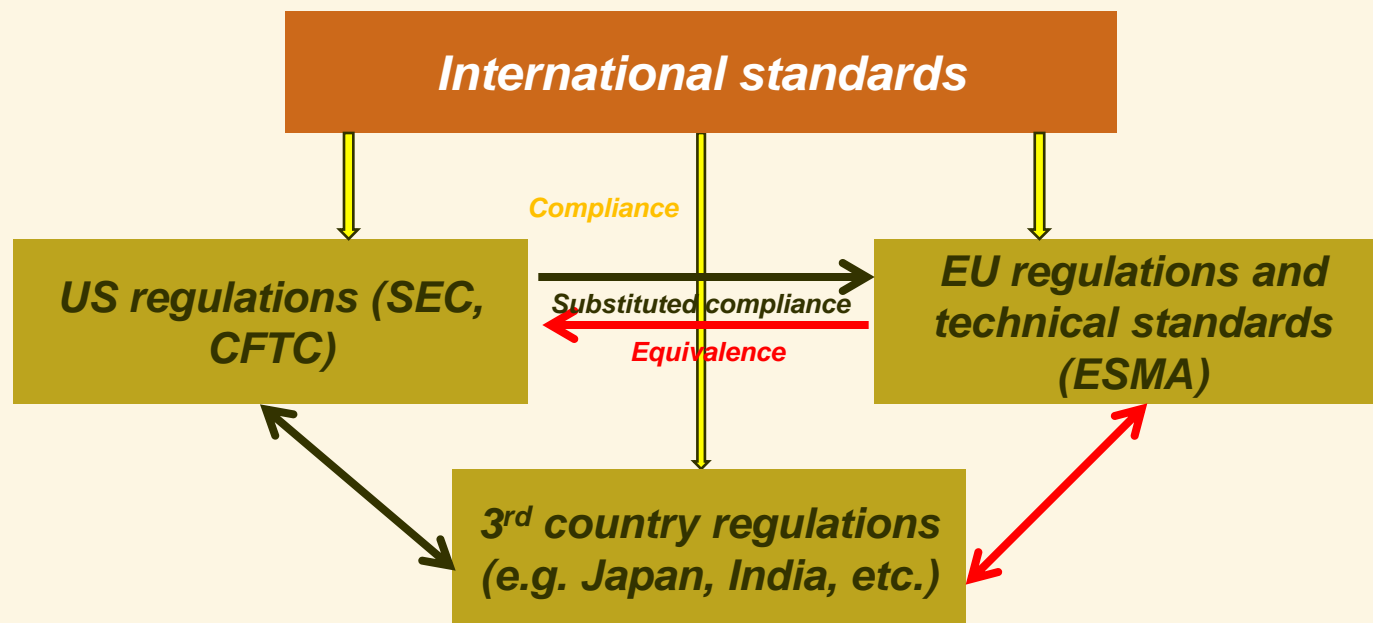


## Interaction of workstreams





## Need for Global Consistency



- *Which transactions have a domestic relevance?*
  - *Who is subject to which jurisdiction (e.g. branch, foreign entity)?*
- ⇒ *Global consistency of rules would minimise impact*
- ⇒ *Consistency (i) of outcomes (ii) with global standards (iii) across jurisdictions*



## Selected CPSS activities in the field of retail payments

### Descriptive reports and statistics

- E.g.: *Red books* (not only retail, but including retail issues)

### Guidelines, principles, best practices

- Few examples in the field or retail: *General Principles for international remittance services (January 2007)*

### Policy and analytical reports:

- *Retail payment systems in selected countries: a comparative study (September 1999)*
- *Clearing and settlement arrangements for retail payments in selected countries (September 2000)*
- *Policy issues for central banks in retail payments (March 2003)*
- *Innovations in retail payments (May 2012)*



## Current work of the CPSS in the field of retail payments

### Report on Innovations in Retail Payments (May 2012):

Stocktaking exercise and analysis, based on a comprehensive survey in which some 122 innovations were reported by 30 central banks (including some non-CPSS central banks)

### Types of innovations:

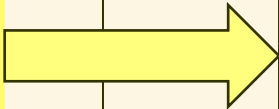
- Product-oriented (Innovations in the use of card payments (25%); Internet payments (20%); Mobile payments (25%); EBPP (10%); Improvements in infrastructure/security (25%))
- Process oriented (Payment initiation (*e.g. new access channels or new access devices*, 50%); Overall payment process (*e.g. some EBPP solutions over existing instruments*, 33%); Payment reception (*e.g. extending a guarantee of the payment to the payee or reconciliation solutions*, around 10%); Totally new schemes (*e-money or virtual currency schemes*, 25%))



## Current work of the CPSS in the field of retail payments

### Report on Innovations in Retail Payments:

#### ● Trends:

- *Dynamic market, but few innovations have significant impact (so far)*
  - *Most innovations are national*
  - *Speed is gaining importance*
  - *Financial inclusion is a driving force*
  - *Role of non-banks is increasing*
- 

### Non-banks in retail payments:

New working group

Initial results expected for 2014.

Some of the issues being covered:

- *Definitions and classification*
- *Drivers of the growing importance of non-banks*
  - *Non-banks and financial inclusion*
- *Models of cooperation/competition with banks*
- *Risks raised by non-banks*
- *Regulatory approaches*

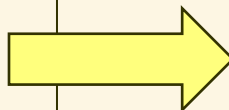


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### Can certain innovations change this trend?

- **ISO 20022 standards** may foster cross border interoperability
  - *SEPA experience in Europe*
  - *IPFA standards at the global or regional level?*
- **Virtual currencies**
  - *Potential global impact*



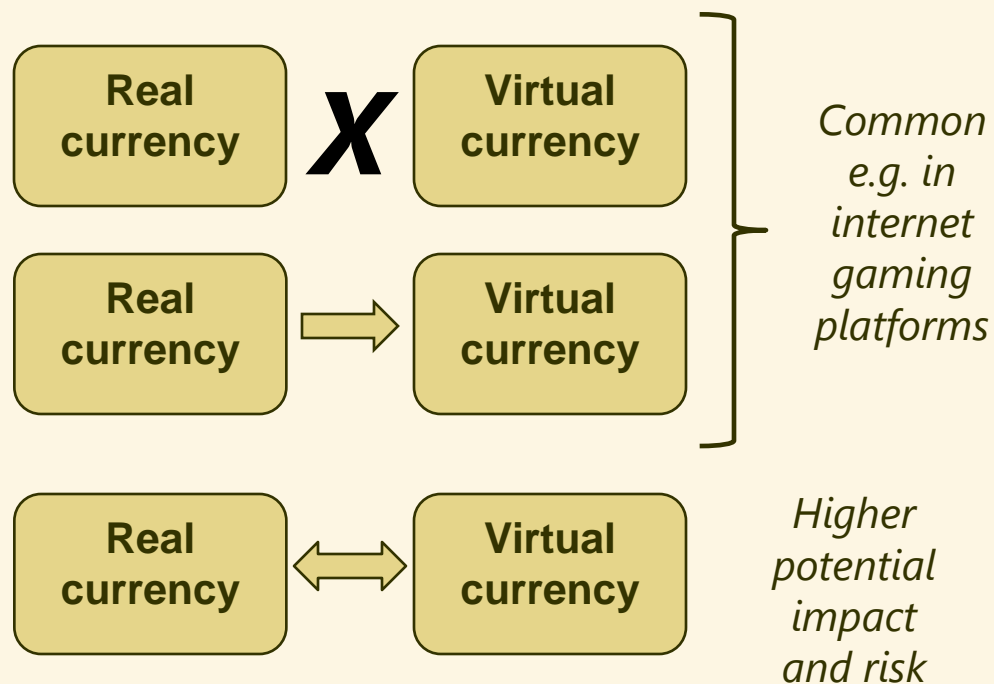
## Virtual currencies

- “A type of unregulated, digital money, which is issued and usually controlled by its developers, and used and accepted among the members of a specific virtual community” (Virtual currency schemes, ECB, 2011)
- Features:
  - Uncertainty about applicable legal framework
  - Little (if any) involvement of traditional financial institutions (issuers / scheme owners are usually private non-financial companies)
  - A currency with an embedded payment mechanism
- It is not e-money, as the virtual currency is not legal tender... but it may be exchanged for “real” money or buy “real” goods and services in some set-ups



## Virtual currencies

- Different types according to their relation to “real” currencies
  - Type 1: closed virtual currencies
  - Type 2: unidirectional flow from real money to virtual currency
  - Type 3: Bidirectional flow between real and virtual currency. For both virtual and real goods and services.







## Virtual currencies

- Concerns:
  - Anonymity and potential for money laundering and criminal activities
  - Shares the vulnerabilities of cash (theft, counterfeit) and adds others (cyber attacks)
  - Opaque procedures for money creation: inherent instability
  - Reputational risk for central banks and other authorities
  - Limited use as a means of exchange due to lack of critical mass
- Until recently, little attention has been devoted to these currencies due to their small size, but this is *rapidly changing*



## Bitcoin (the biggest virtual currency scheme)

- A decentralized peer-to-peer virtual currency and payment network scheme (Transmission via a bitcoin mobile app or computer program that provides a personal Bitcoin wallet)
- Limited provision of bitcoins by design (21 million bitcoins will ever be created. Each bitcoin includes a code with previous transactions. This code changes with every new transfer. A decentralized “mining” process checks transactions and is the basis for the creation of currency (“miners” are awarded bitcoins))
- Price instability - used as a store of value? => Regulatory attention





## CPSS work on cyber security

- Part of operational risk considerations (cf. PFMI Principle 17). CPSS has been looking at specific aspects of cyber security (e.g. phishing) in the past
- Increasing threat landscape and sophistication of cyber attacks led CPSS to start analysing the relevance of cyber security issues for FMIs and share information on oversight practices
- In June 2012, the CPSS set up a working group to identify and analyse cyber security issues for FMIs, challenges to ORM and BCPs, and also implication for overseers
- Key preliminary findings:
  - Increasing sophistication of attacks - diversity of goals (fraud, terrorism, etc.)
  - Multiplicity of entry points
  - Attackers can and will breach defences (e.g. attacker is already inside)
  - Disruption can extend beyond expectations (comprehensive data/system integrity breach) - it is difficult to pre-estimate impact
  - Diversity of measures needed (IT, processes, people, communication)



## Issues and challenges for central banks

The role of central banks varies from country to country, but a number of common issues and challenges persist:

- It is important to monitor and assess new developments (collection of relevant data, building expertise)
- Formulating and communicating in a transparent way the objectives, views and research of the central bank vis-à-vis innovations
- Interoperability is usually a policy goal to increase competition and thus efficiency. Central banks may play a role to foster standardisation and interoperability
- Oversight frameworks and cooperation with other central banks and authorities (at a national and international level) may need to be reviewed
- Need to assess the impact of innovations on the services offered by the central bank in the payment field
- Need to assess the impact of innovations on cash provision and monetary policy



## **Future outlook on innovations in retail payments**

Hard to make any prediction, but a few pointers:

- Technical developments will continue blurring the different categories
- E-commerce could be a key driver
- Globally active players may play a leading role
- Innovations can be adopted gradually, but large leaps are possible (especially in countries with less developed payment systems)
- Significant differences between regions are likely to persist
- Security issues will become ever more critical
- Regulation can be either driver or barrier