

Payment and Market Infrastructures Development

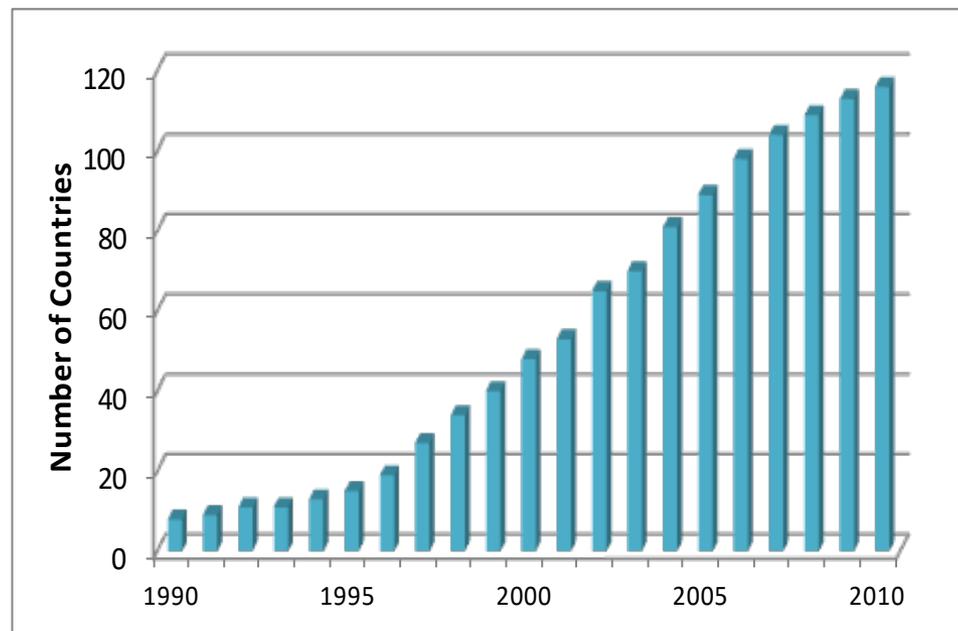
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WORLD BANK GROUP
Finance, Competitiveness & Innovation

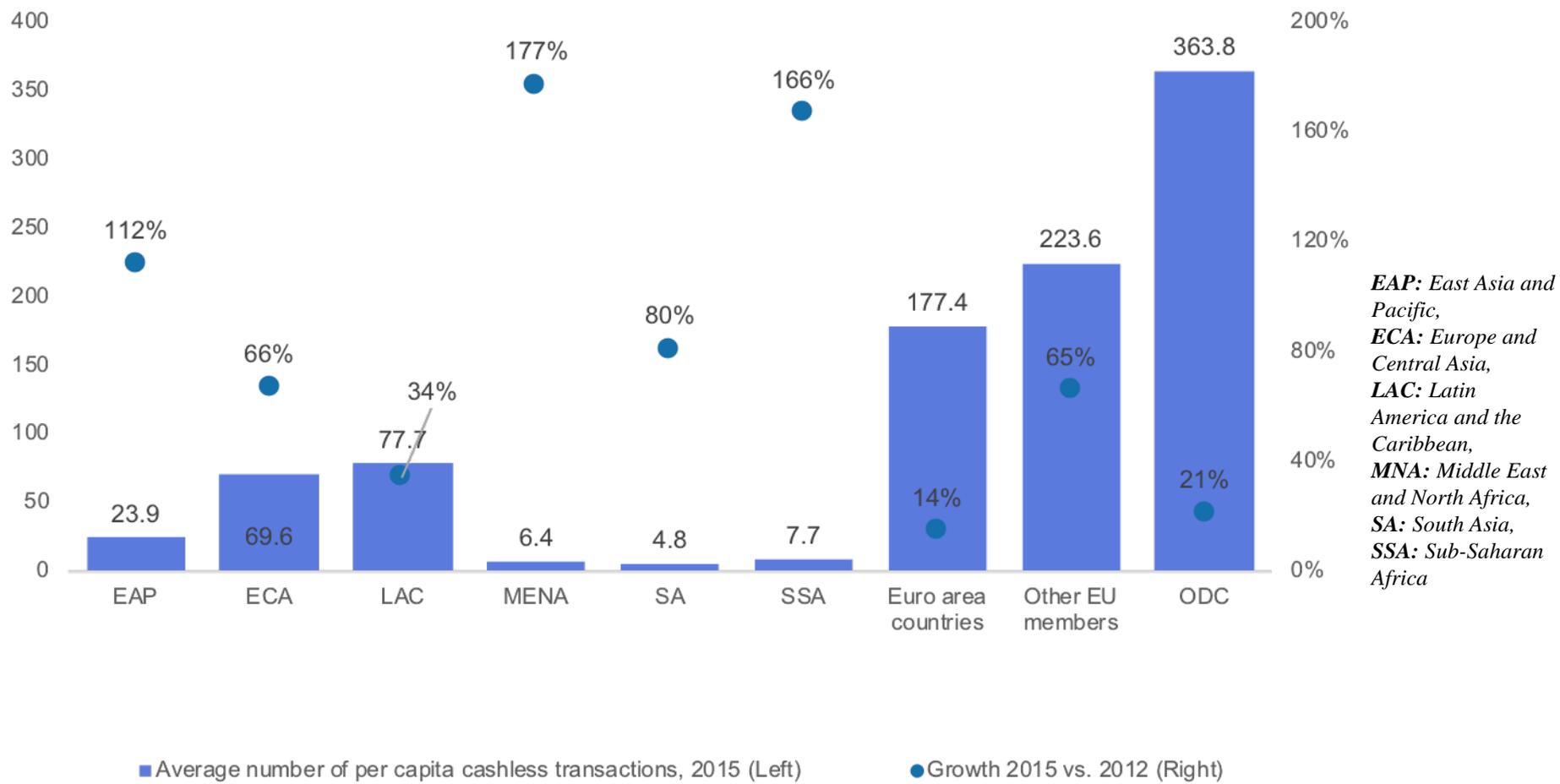
Large-value payment systems: building the underlying foundations

- Adoption of RTGS systems worldwide from less than 10 countries in early '90s to 120+ has led to improved risk management in interbank settlement and increased financial stability
- World Bank supported 60+ countries in implementing RTGS systems
- Great majority of RTGS systems allow flexibility in use of reserves, about 73 percent provide collateralized credit or overdrafts – of which, 83 percent against suitable collateral
- 93 percent of RTGS systems manage liquidity through efficient queuing facilities
- Generally strong operational reliability / business continuity
- Continued support of upgrades and enhanced compliance with standards, risk-based open access, efficiency and liquidity risk management



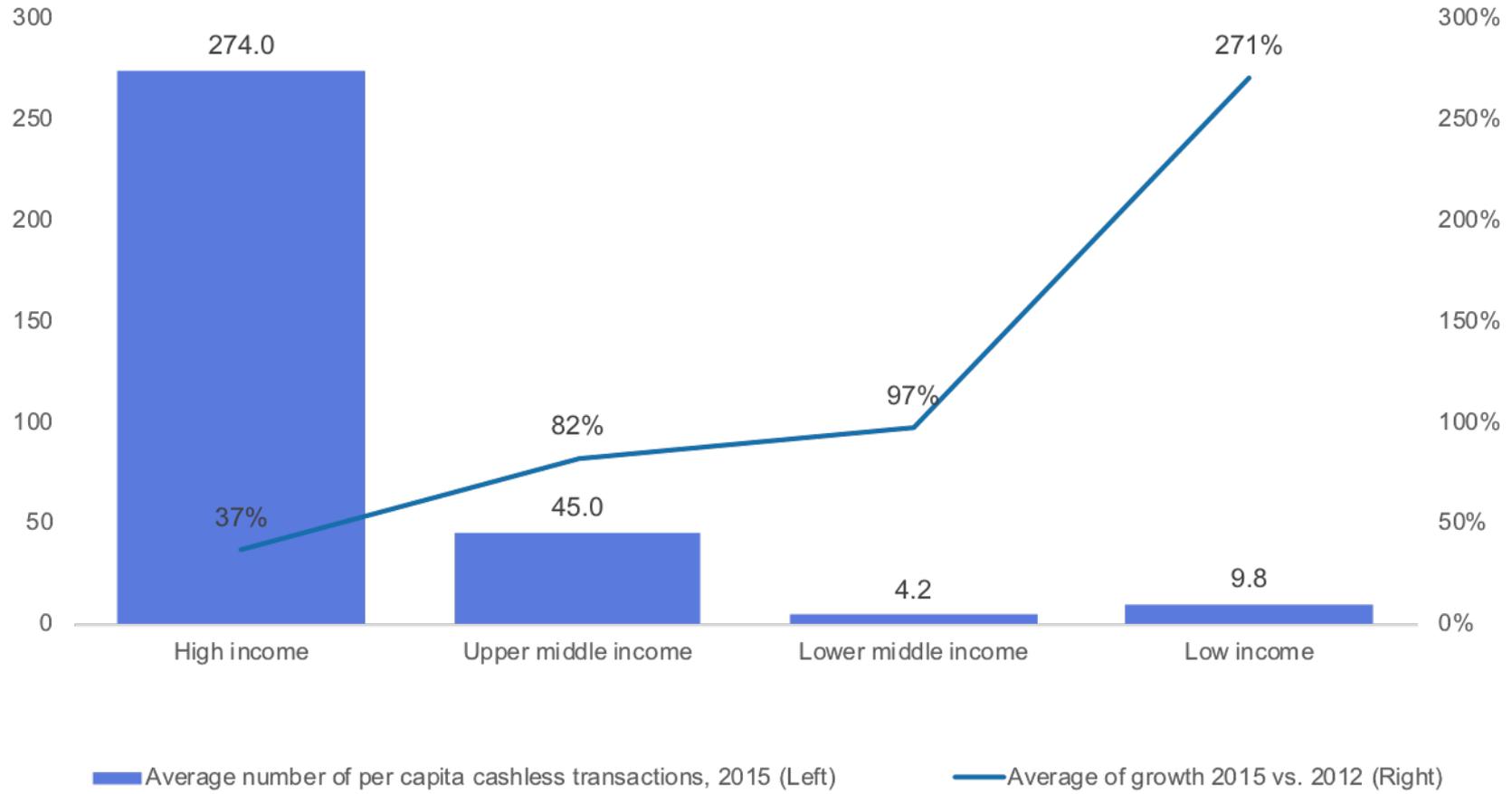
Source: World Bank Global Payment Systems Survey and GFDR

Retail payment systems of emerging economies still lagging behind, as shown by cashless retail payment transactions per capita



EAP: East Asia and Pacific,
ECA: Europe and Central Asia,
LAC: Latin America and the Caribbean,
MNA: Middle East and North Africa,
SA: South Asia,
SSA: Sub-Saharan Africa

Non-cash retail payment transactions per capita in developing markets is only a fraction of those in developed countries (GPSS 2015)



Innovations and New Trends

Innovations in Payments

Payment gateways and aggregators

Fast Payments

API

Tokenization

ID and Payments

Big Data

Role of Non Banks

Cryptocurrencies and Central Bank Digital Currencies

Faster Payments

The new platform for faster payments should be based on the following specific elements

Fast payments:

- All citizens including the unbanked will be able to send and receive money instantly regardless of the part of the country they live or payment solution they use
- Transaction will be transparent with rich and informative messages for both payer and payee, and will be received instantly
- End users will have access to funds in real time

Easy payments:

- The process of making payments will be more flexible and modular
- Identifiers such as ID card, email, phone numbers and fingerprints can be used to execute payments
- The simple account to account instant payment system will enable innovation and support a satisfactory customer experience for customers.
- Introduce easy to use and cost effective digital and integrated payments solutions to drastically reduce the use of cheques and reduce the level of cash in circulation

The new platform for faster payments should be based on the following specific elements

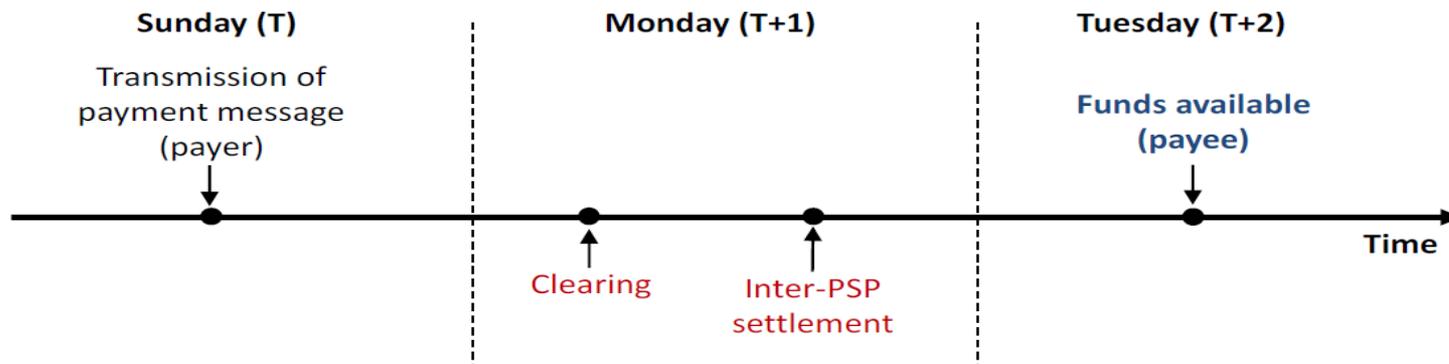
- Open payments:
 - Payment service providers will have access to the account-to-account domestic payments scheme, thus enabling digital and integrated payments services
 - Open APIs and rich transactions information will promote data driven innovation and new value propositions
 - The flexible and open system will invite new business models, business strategies and technologies
 - Introduce two types of players in the payment space; Account Information Provider and Payment Service Provider, which will promote competition and innovative payment solutions
- Safe payments:
 - Payments regulations will be developed as the payments system continues to evolve to ensure that the users and regulators have a high level of confidence in the payments system
 - Standardized, automated processes and real time processing minimize cost and risk
 - System errors will be minimized and fraud will be resolved quickly especially at the early stage
 - International standards: The ISO20022 messaging standard should be used. Ensuring compliance with other standards dealing with IT system implementation and data security
 - Improved resiliency: Availability of the system should be ensured at a 99.9% uptime level per month
 - Usability: the system must be user friendly and support easier and quicker onboarding of new participants

Clearing and settlement of fast payments compared with traditional payments

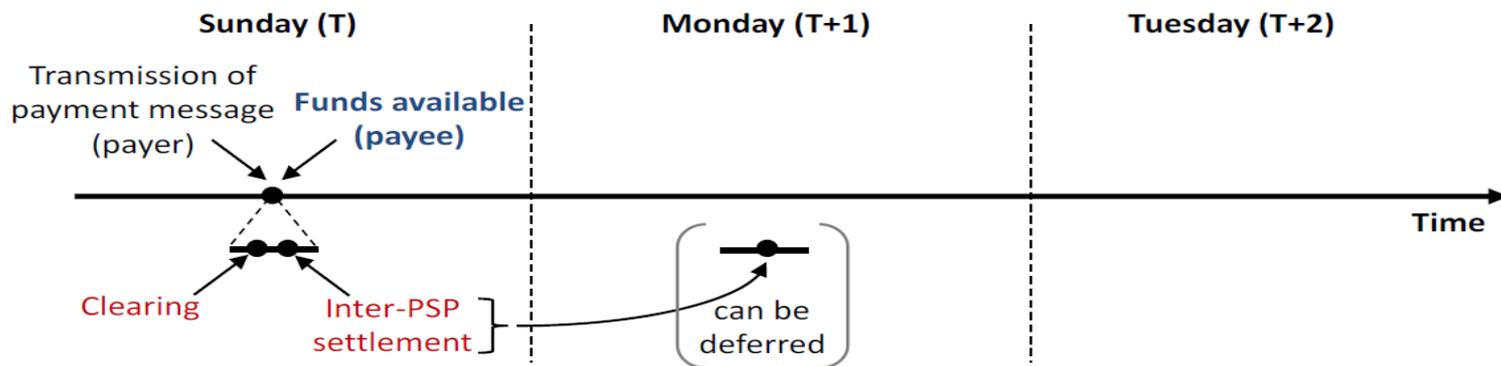
Stylised models of payment processing for traditional and fast payments

Figure 1

A traditional payment initiated during the weekend



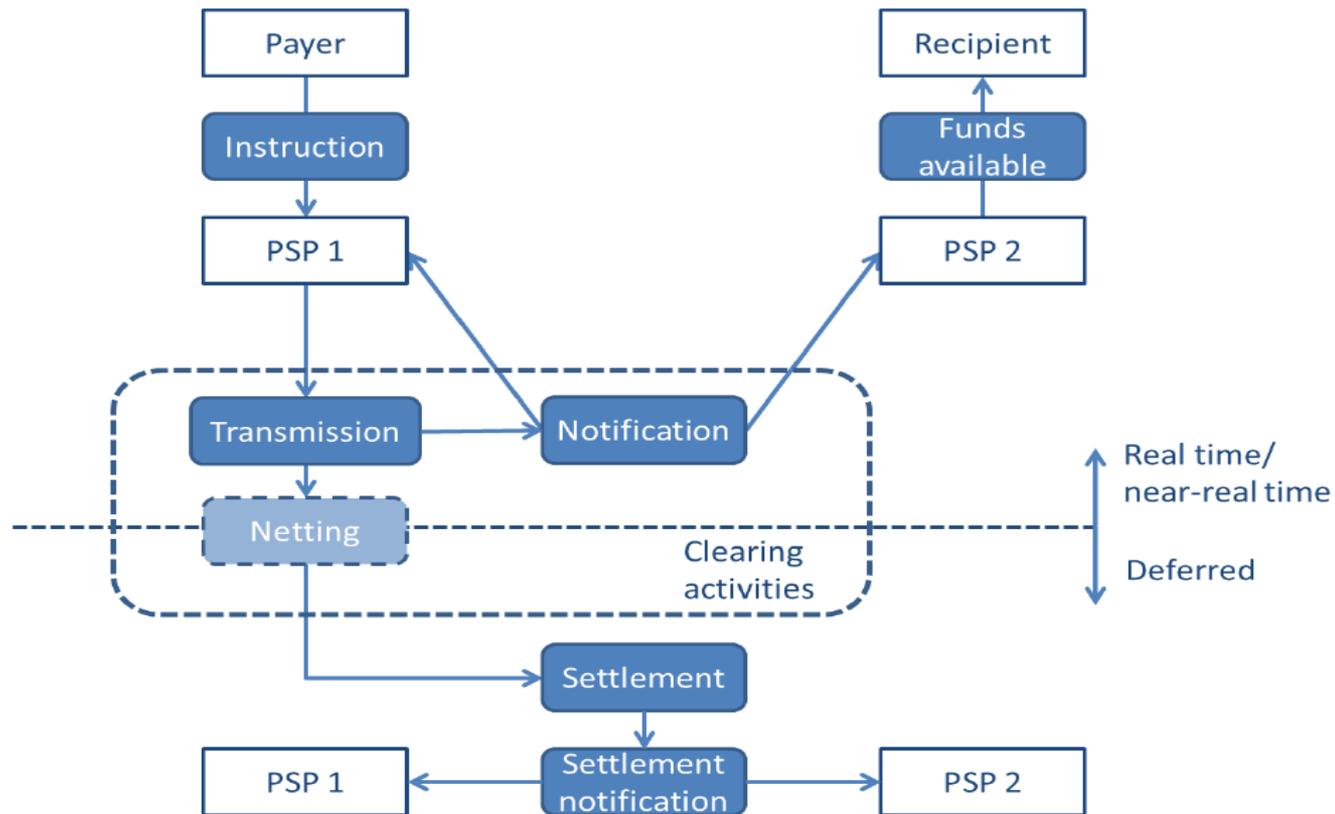
A fast payment processed during the weekend



Important additional characteristics of fast payment implementations

Model 1 – Deferred settlement

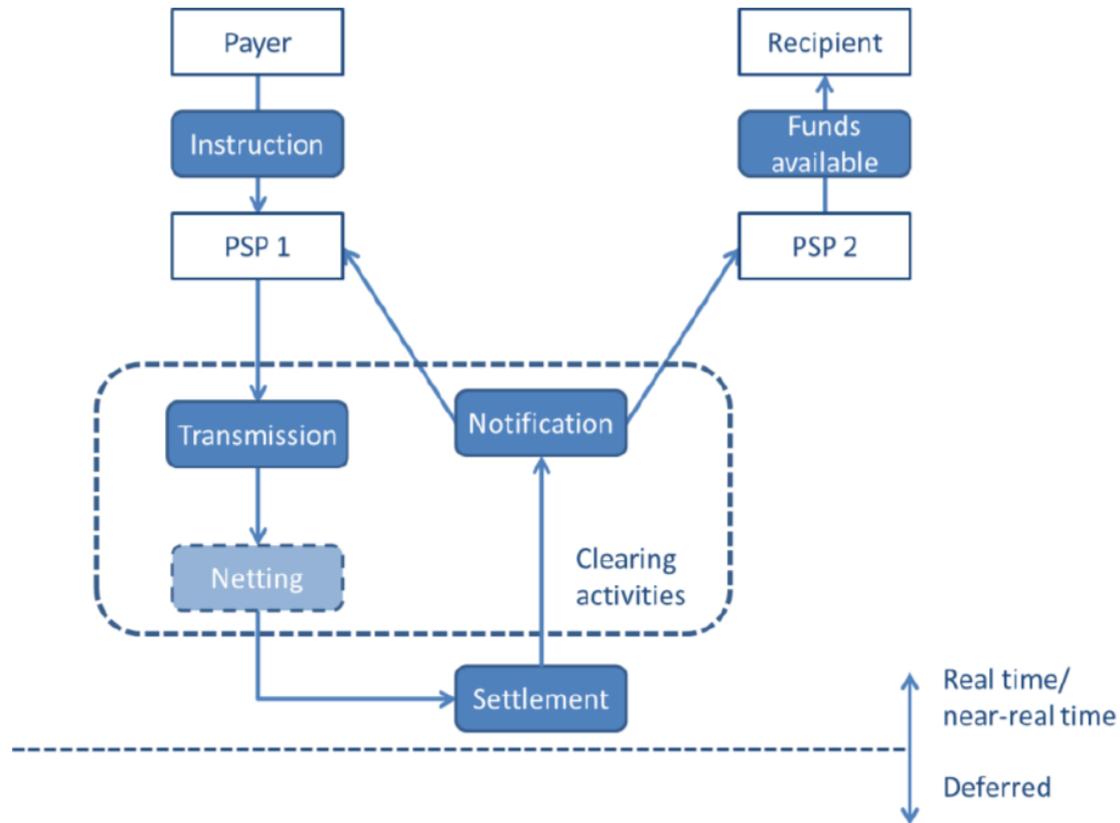
Figure 3



Important additional characteristics of fast payment implementations

Model 2 – Real-time settlement

Figure 4



Policy considerations to approach payments innovation

Overall safety and efficiency

- Oversight regimes will have to be expanded to include new players and new technologies will have to be monitored to ensure continued safety, reliability and efficiency of the NPS.
- Security of payments and consumer protection have to consider new environment and new ways of managing and using payment data.

Affordability and ease-of-access to payment services

- Potential to increase access to transaction accounts
- Authorities have to be vigilant to avoid the dominance of single entities and lock-in of customers

Availability of an efficient processing infrastructure

- Need for interoperable solutions on two levels: interoperability between the same type of service providers (e.g. different MNOs) and between the “old” and the “new” world (e.g. banks and new service providers)

Availability of a socially optimal mix of payment instruments

- Need to monitor overall benefit of the new payment mechanisms that are being introduced.