

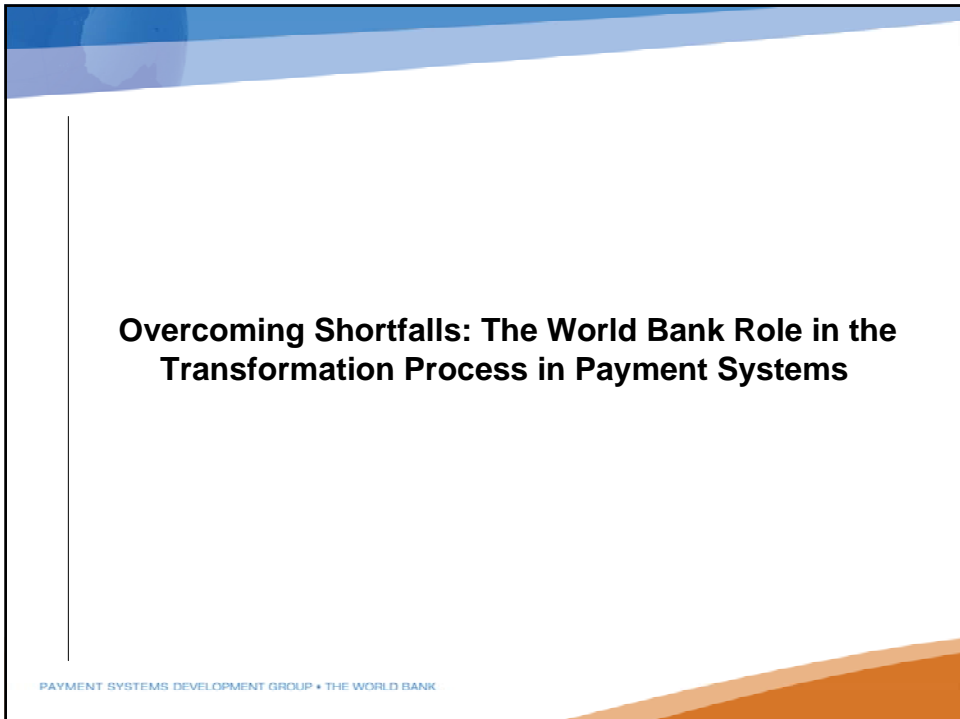


Issues in retail payment systems in emerging markets: the World Bank perspective

Retail payments: integration and innovation
A joint conference by the European Central Bank and De Nederlandsche Bank
Frankfurt, May 25-26, 2009

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The World Bank

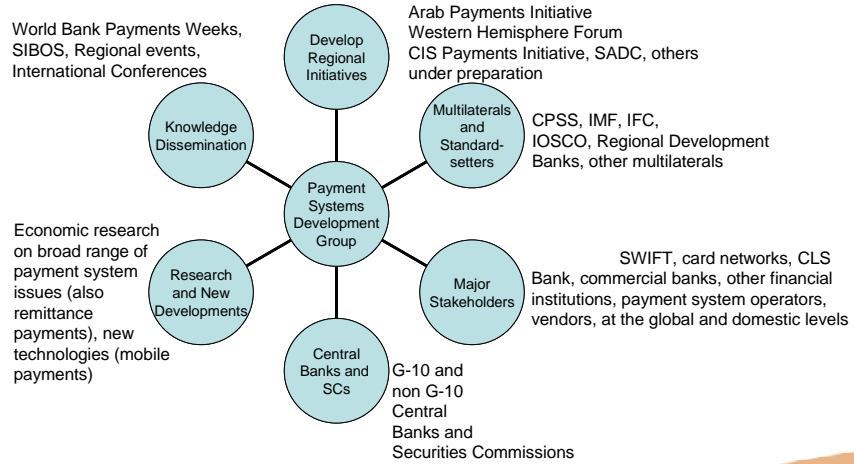
PAYMENT SYSTEMS DEVELOPMENT GROUP



Overcoming Shortfalls: The World Bank Role in the Transformation Process in Payment Systems

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•The Payment System Development Group is at the center of an international network, whose main objective is supporting countries to reform Payments, Remittances and Securities Settlement Systems



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1. Help develop sound and efficient payment, remittance and SS systems
2. Support Access to Finance

Stocktaking & Policy Advice

Implementation Support

- Vision & Strategy
- Legal Framework
- Large-Value Systems
- Retail Payment Systems
- Government Payments
- Remittances
- Securities Settlement
- Oversight & Cooperation

Financing: WB loans-grants, fee-based and other TA, Regional Initiatives, FSAPs, support to FIRST-funded Initiatives, Others

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**Retail Payment Instruments and Systems: Outcomes
of the “World Bank Global Payment System Survey
2008” & Cirasino-Garcia “Measuring Payment System
Development”**

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***The World Bank’s Global Payment
Systems Survey 2008***

- Covered 128 central banks and 142 countries
- Available at www.worldbank.org/paymentsystems
- Topics covered:
 - i) Legal Framework
 - ii) Large Value Payment Systems
 - iii) Retail Payment Systems
 - iv) Foreign Exchange Settlement Systems
 - v) Securities Settlement Systems
 - vi) Remittances
 - vii) Payment System Oversight
 - viii) Current Reforms

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15+ years of discussion and reforms have led to important progress worldwide with regard to Legal Framework and High-Value Payment Systems

...but retail payment systems in developing countries still lag behind significantly when compared to those of developed countries...

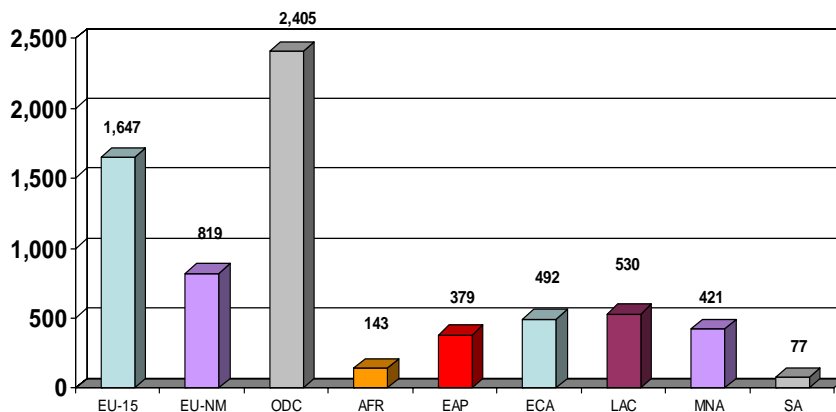
Measuring Payment System Development* Retail Payment Systems

- Two sub-components measured independently
- Sub-Component 1: Deployment of Infrastructure to process Retail Payment Instruments and Key Policy Decisions that Affect the Safety, Soundness and Efficiency of the Services Provided. Issues considered:
 - ACH infrastructure and (some) Cheque Clearinghouse Features
 - POS terminals infrastructure
 - Interoperability of Infrastructure
 - Scope of Payment System Oversight

* Available at www.worldbank.org/paymentsystems

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Payment Cards* In Circulation per 1000 inhabitants
(as of end-2006)



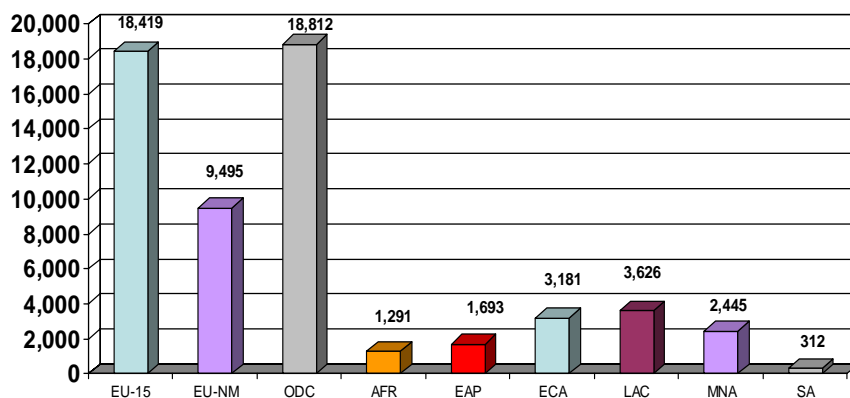
*Includes debit cards, credit cards, and other non-prepaid products

** Simple average

*** For Africa, if South Africa and Mauritius are excluded the number is then 51

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POS Terminals per 1 million inhabitants (as of end-2006)



* Simple average

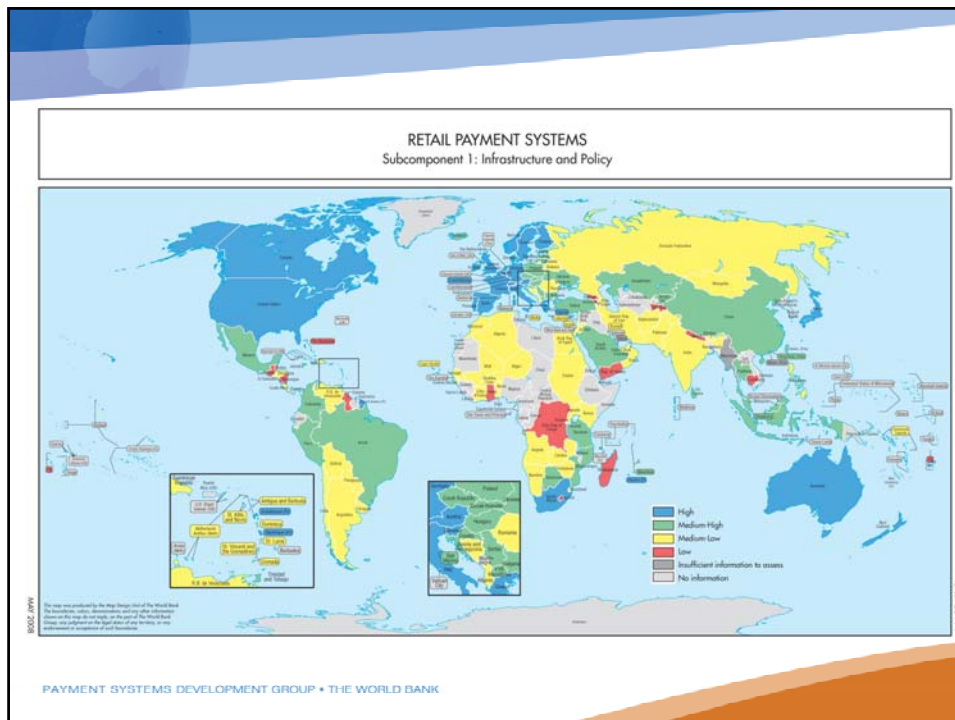
** For Africa, if South Africa and Mauritius are excluded the number is then 184

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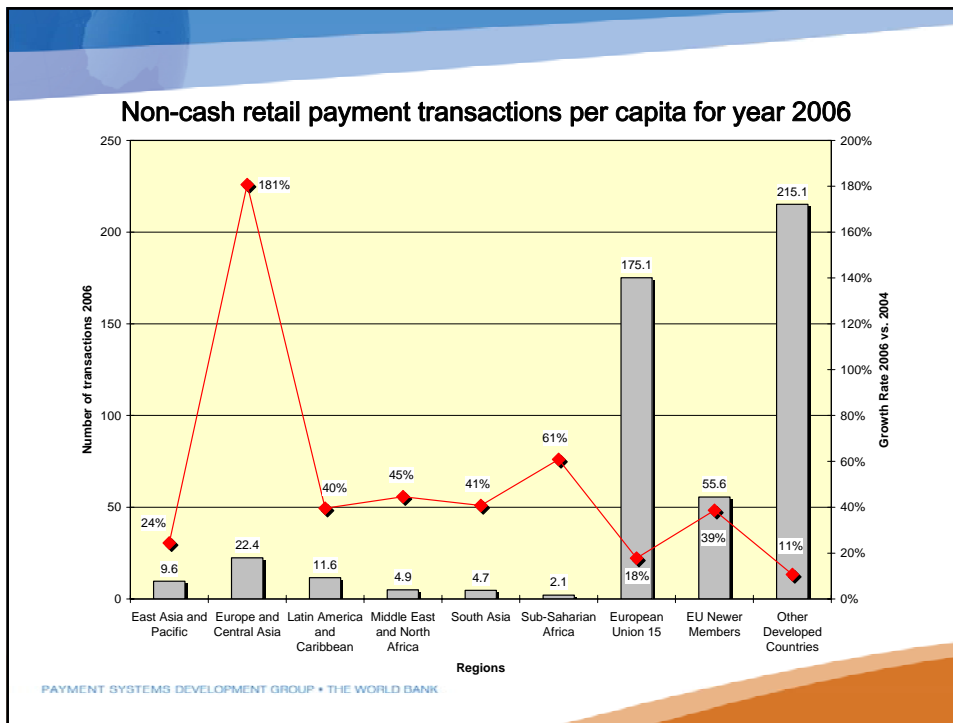
Interoperability of ATMs and POS

| | Interoperability of ATMs | | | | | | Interoperability of POS Terminals | | | | | |
|---------------------------------|--------------------------|------------|-----------|------------|-----------|------------|-----------------------------------|------------|-----------|------------|-----------|------------|
| | Full | | Partial | | Low | | Full | | Partial | | Low | |
| Central Bank Opinions | # | % | # | % | # | % | # | % | # | % | # | % |
| Worldwide totals (128) | 67 | 52% | 34 | 27% | 15 | 12% | 65 | 51% | 29 | 23% | 20 | 16% |
| European Union-15 (15) | 12 | 80% | 3 | 20% | 0 | 0% | 15 | 100 | 0 | 0% | 0 | 0% |
| EU-Newer members (12) | 9 | 75% | 3 | 25% | 0 | 0% | 10 | 83% | 1 | 8% | 1 | 8% |
| Other Developed C. (14) | 11 | 79% | 1 | 7% | 1 | 7% | 10 | 71% | 3 | 21% | 0 | 0% |
| Europe - Central Asia 16 | 4 | 25% | 10 | 63% | 1 | 6% | 4 | 25 | 9 | 56% | 2 | 13% |
| East Asia and Pacific (10) | 4 | 40% | 1 | 10% | 3 | 30% | 0 | 0% | 3 | 30% | 5 | 50% |
| Latin America & Caribbean 23 | 11 | 48% | 5 | 22% | 5 | 22% | 11 | 48% | 6 | 26% | 3 | 13% |
| Middle East & North Africa (12) | 8 | 67% | 2 | 17% | 0 | 0% | 5 | 42% | 4 | 33% | 1 | 8% |
| South Asia (6) | 2 | 33% | 1 | 17% | 2 | 33% | 2 | 33% | 0 | 0% | 3 | 50% |
| Sub-Saharan Africa (20) | 6 | 30% | 8 | 40% | 3 | 15% | 8 | 40% | 3 | 15% | 5 | 25% |

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- ## Retail Payment Systems (cont.)
- Sub-Component 2: Efficiency of payment instruments used, and extensiveness of usage of cashless payment instruments
 - Specific issues considered:
 - Extensiveness of usage of cashless instruments
 - Efficiency of payment instruments used: electronic instruments vs. paper-based instruments
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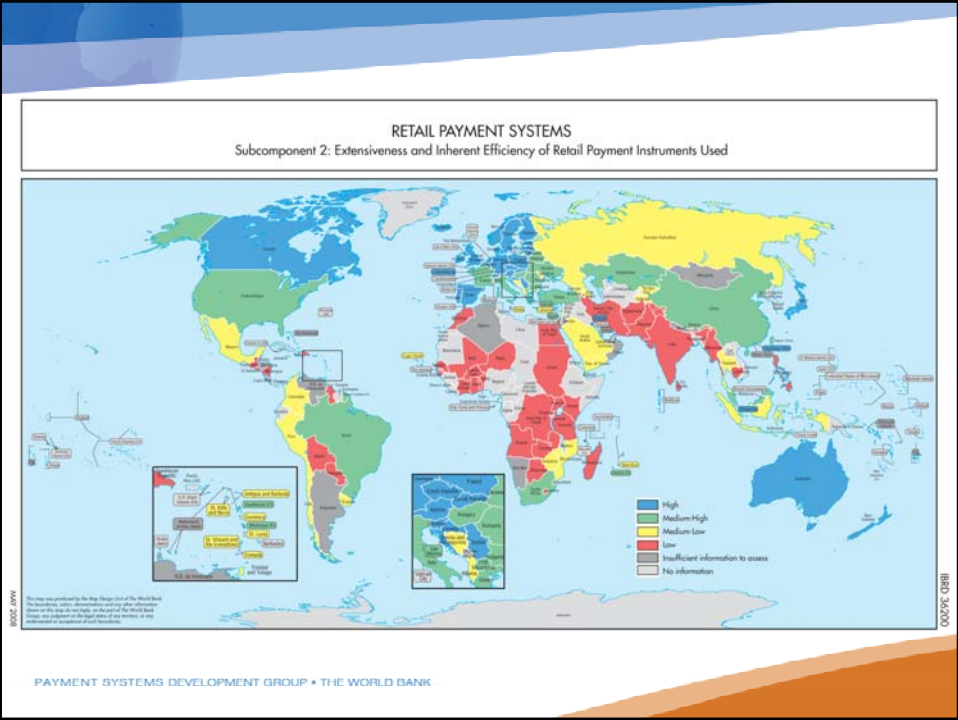


Statistical Trends*

| <i>Instrument</i> | <i>% of total non-cash payments (in terms of volume)</i> | <i>Change in volume 2006 vs. 2002</i> | <i>Average value of each payment (in US\$, year 2006)</i> |
|---|--|---|---|
| Cheques | World: 22% Developing: 43% | World: 0% Developing: 11% | World: \$5,009 ↓ |
| Retail electronic credit transfers | World: 15% Developing: 21% | World: 123% Developing: 107% | World: \$3,435 ≈ |
| Direct debits | World: 11% Developing: 2% | World: 108% Developing: 55% | World: \$588 ≈ |
| Payments with debit cards | World: 35% Developing: 30% | World: 199% Developing: 388% | World: \$68** ↓ |
| Payments with credit cards | World: 17% Developing: 4% | World: 173% Developing: 471% | World: \$100 ↓ |

*Preliminary calculations for Developing Countries
 **Simple average for both World and Developing Countries
 *** For some countries, the value reported for debit cards included both debit cards and credit cards transactions

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**“Balancing Cooperation and Competition in Retail Payment Systems”:
A World Bank study coordinated by Mario Guadamillas**

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IMPORTANCE OF COMPETITION VERSUS COOPERATION

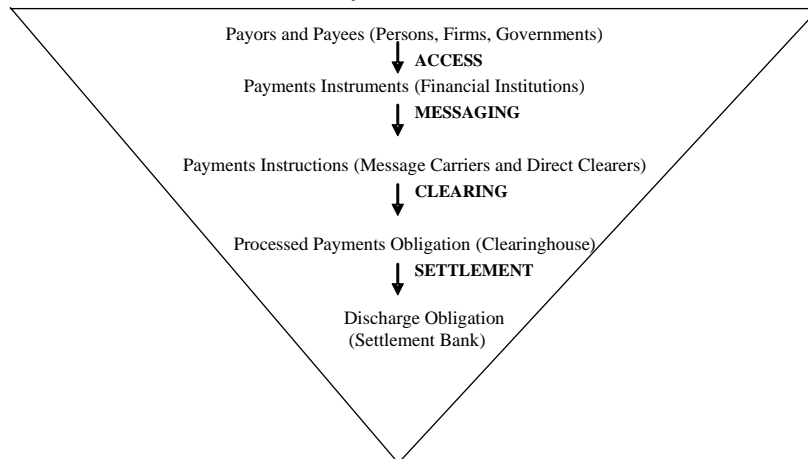
- **Accessibility and affordability of payment instruments is a function of the level of competition and cooperation**
- **Starting point: "upstream cooperation combined with downstream competition"**
- **However, IO literature raises issues on conventional wisdom of competition on access services vs. cooperation on infrastructure**
 - Monopolistic pricing
 - Incumbents may create barriers to entry
 - Effects of transfer pricing in two-sided markets
- **The CPSS (2003) defined public policy goals and the World Bank a Reform Agenda but there is no clear framework on the nature and extent of public intervention to balance cooperation & competition**

PAYMENT INSTRUMENTS AND SERVICES

- **Network of competing and complementary services that facilitates transactions**
 - *Payment instruments (cash, non-cash, paperless)*
 - *Services (access, messaging, clearing, settlement)*
 - *Processes (differ by type of instrument and system)*
 - *Key players (end-users, service providers, authorities)*
- **Significant contributors to the effectiveness and stability of the financial system**
 - *confidence in money (as link to commodity became weaker, need to underpin confidence via regulation/oversight)*
 - *functioning of commerce (banks achieved efficiency gains by pre-depositing or by a system of credit among them)*

PAYMENT INSTRUMENTS AND SERVICES

Payments Services



MARKET STRUCTURE AND DYNAMICS

- ***Economies of scale*** in messaging, clearing and settlement services due to infrastructure fixed costs
 - Internet payments may change the scale dynamics
- ***Economies of scope*** in clearing and settlement services due to technology flexibility
 - Different instruments can rely on the same infrastructure
- ***Network externalities*** in messaging, clearing and settlement services are due to complementarities of users and/or products and compatibility of products
 - The more participants in a payments network, the higher the utility to the users

MARKET STRUCTURE AND DYNAMICS

- **Retail payment systems structure is a determinant of the level of competition and cooperation**
 - Competition across retail payment instruments (e.g., cheque vs. electronic transfers)
 - Competition across payment system providers for the same instrument
 - among platforms (e.g., visa vs. mastercard)
 - within platform between service providers (e.g., cards issuers vs. acquirers)
- **Market dynamics can generate**
 - Tendency of the network to grow (e.g. tipping, critical mass)
 - Lock-in to obsolete instruments, standards or technologies (e.g., switching costs, excess inertia, path dependence)
 - Fidelity to a single provider (e.g., multihoming and stickiness)

BEHAVIORAL PATTERNS

- **No perfect competition (e.g., two sided markets)**
- **Concentration of platforms:**
 - Take advantage of economies of scale/scope and network externalities
 - May hamper product differentiation
- **No conclusive evidence on pricing and innovation**

MAIN DRIVERS OF COOPERATION AND COMPETITION

➤ Main drivers

- Environmental, legal and legacy factors
- Governance
- Access
- Pricing

➤ Policy Response

- Oversight and Cooperation

Retail Payment Markets

Payment instruments (vehicle to transfer value):

- Cash
- Non-cash (paper-based, paperless)

Payment services:

- Access
- Messaging
- Clearing
- Settlement

Market conditions

- Market structure
- Market dynamics
- Competition at different levels:
 - Across instruments
 - Among and within platforms for the same instrument

Behavioral patterns:

- No perfect competition (e.g., two sided markets)
- Concentration of platforms:
 - Take advantage of economies of scale/scope and network externalities
 - May hamper product differentiation
- No conclusive evidence on access, pricing and innovation

Main drivers of cooperation and competition:

- Environmental, Legal and Legacy factors
 - Governance
 - Access
 - Pricing
- ### Policy Response
- Oversight and Cooperation

PUBLIC POLICY OBJECTIVES AND GOALS

- **Efficiency and reliability are the general policy objectives. In addition, at least three policy goals should be considered**
 - Achievement of a socially optimal use of payment instruments
 - Deployment of an efficient infrastructure to support payment services
 - Affordability and easiness of access to payment instruments and services

GUIDELINES



- ***Guideline 1. Market complexities need to be recognized and analyzed in detail before any action is decided and implemented***
 - Environmental, legal and legacy factors are important issues shaping the evolution of retail systems
 - Governance of the infrastructure has a significant impact on cooperation and competition
 - Gaining access to messaging, clearing and settlement services is of capital importance for the ultimate success of new entrants in the market
 - Pricing of some retail payment systems are subject to network economies (e.g., two-sided markets) and traditional cost structures are not appropriate to analyze these markets as pricing structures matter

GUIDELINES



- **Guideline 2. Policy trade-offs are relevant in this domain. Therefore, policy priorities will have to be determined and the type of public intervention should depend on the main public objective(s) pursued**
 - Public policy objectives in retail payments systems are multiple
 - The justification for intervention depends upon the main public policy objective(s) pursued and upon evidence of perceived market failure
 - An ex-ante and transparent determination of policy objectives clarifies actors' roles and avoids mistrust in the development and operation of the infrastructure
 - Market transparency is key to promote competition and dispel mistrust among market players
 - Any policy solution should be considered in a dynamic rather than static context

GUIDELINES



- **Guideline 3. Effective Oversight of retail payment systems by the central bank is crucial to balance cooperation and competition issues**
 - Effective oversight is the main tool to achieve an appropriate balance between cooperation and competition
 - Central banks are the natural overseers and should play a central role due to their stake on the confidence in money and functioning of commerce
 - Other authorities have an important role due to multiple implications of retail markets (e.g., competition authorities, financial supervisors, Ministries of Finance, etc.)
 - The oversight function scope should be broad to ensure that new instruments and players are covered
 - Oversight instruments range from regulations/incentives (including on access and pricing) to moral suasion and policy dialogue, from antitrust enforcement to structural measures (e.g., government-owned service provision)

GUIDELINES



- **Guideline 4. Institutional mechanisms to promote cooperation and information sharing are essential**
 - Policy making is complex due to the institutional fragmentation of relevant policy makers as well as by the different –and sometimes overlapping– scope of their mandates
 - Sometimes authorities have already established cooperative arrangements but normally with a narrow scope that has to be broadened, other times these arrangements are inexistent and need to be established
 - In particular, it is essential to count with a good cooperative framework between the overseer and the anti-trust agencies that rule against uncompetitive behavior
 - The public authorities should use Payment Councils, industry associations groups and similar bodies as important cooperative tools

Thank you

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