

Expert Meeting on

CYBERLAWS AND REGULATIONS FOR ENHANCING E-COMMERCE:
INCLUDING CASE STUDIES AND LESSONS LEARNED

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Cyberlaws and Regulations for Enhancing E-Commerce
The Case for Payment Instruments and Systems

By

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The views reflected are those of the author and do not necessarily reflect the views of UNCTAD



CYBER LAWS AND REGULATIONS FOR ENHANCING E-COMMERCE

THE CASE FOR PAYMENT INSTRUMENTS AND SYSTEMS

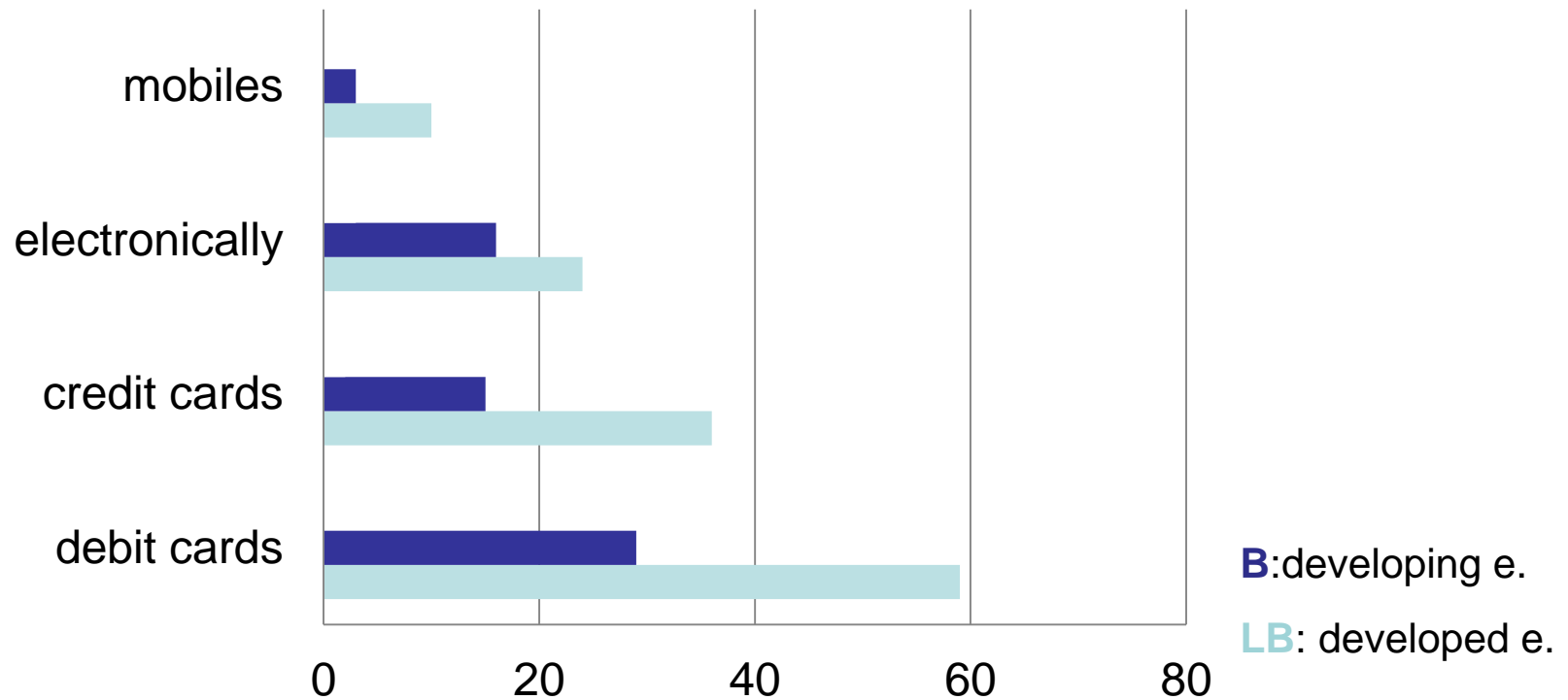
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INNOVATIVE RETAIL PAYMENT INSTRUMENTS

WB Global Financial Development Report 2014

Selected methods of payment 2011



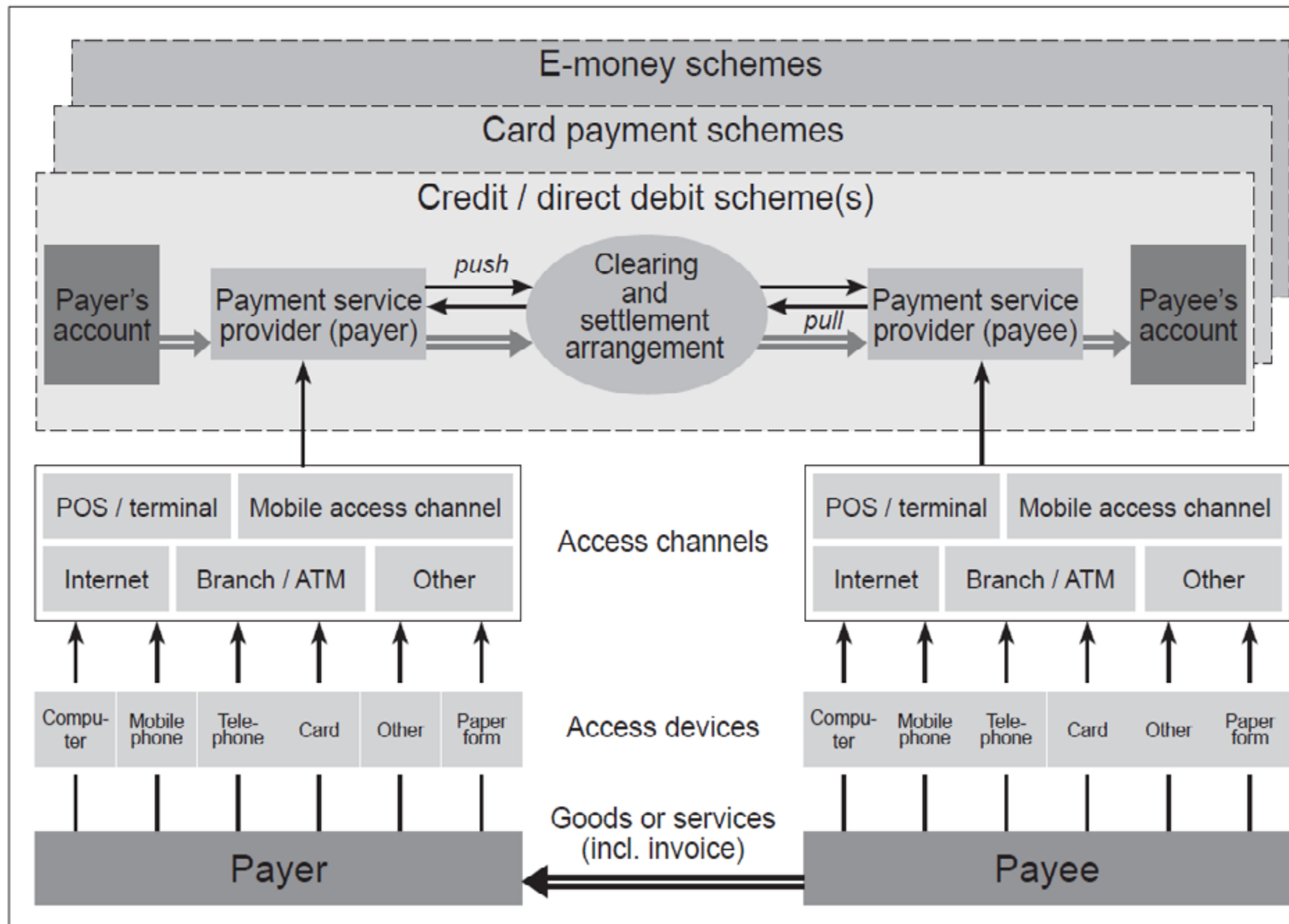
“E-MONEY”: STORED-VALUE PRODUCTS FOR UNBANKED POPULATION

- **Pre-paid cards and mobiles**
- **Branchless-banking**
- **(international) remittances**

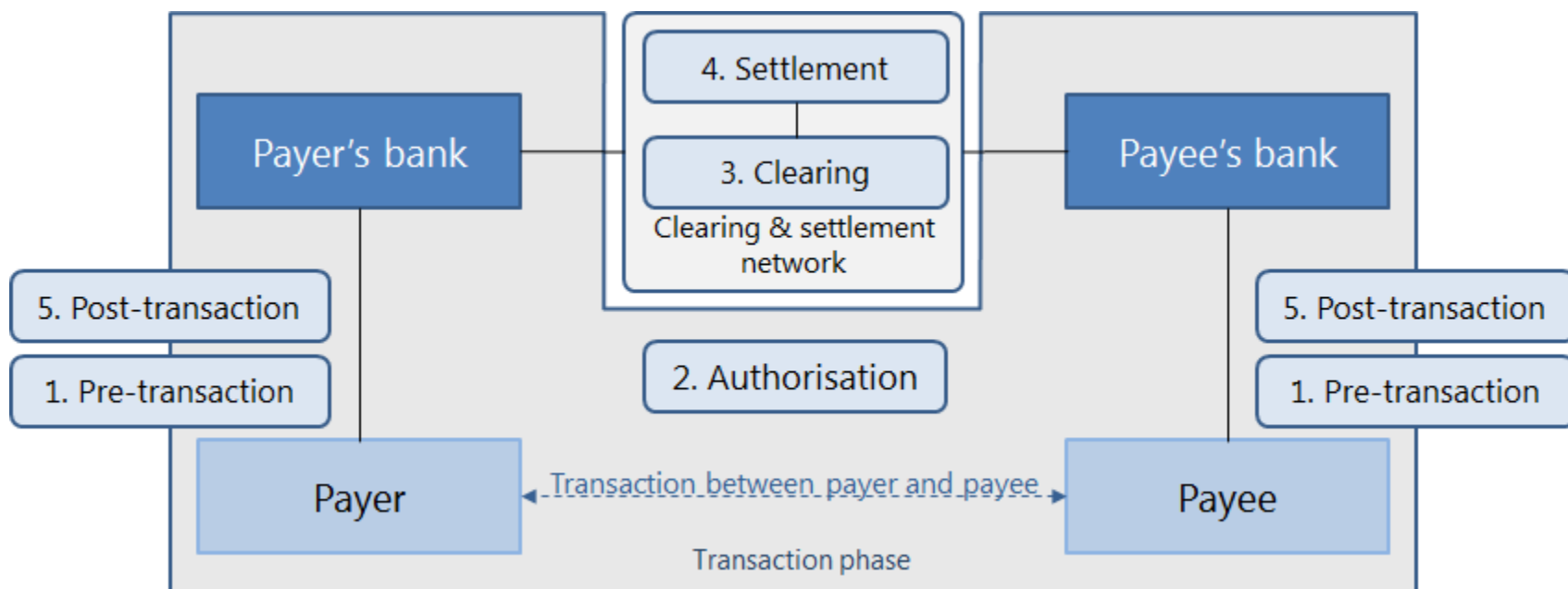
PAYMENT PROCESS

Tables from
CPSS, INNOVATIONS IN RETAIL PAYMENTS - May 2012
CPMI, NON-BANKS IN RETAIL PAYMENTS – September
2014

→ Information flow ⇨ Flow of money



Retail payments landscape – stylized model



STAGE 1: PRE-TRANSACTION

All activities involved in creating the initial infrastructure:

- **payments customer acquisition**
- **provision of actual payment instrument (card issuance including personalization, delivery and activation, e-money wallet, cheque manufacturing)**
- **provision of related hardware, software and network infrastructure (ATM and POS terminals, cheque and card readers, application processing and web-hosting services, shopping cart software, cheque verification software, connection to payment gateway and related services)**
- **provision of security-related technology support (digital signature services, online transaction security systems)**
- **other value added services such as provision of data centre services, e-invoicing etc.**

STAGE 2: AUTHORIZATION

Processes and activities that enable a payment transaction to be authorized and approved before it can be completed:

- Provision of back-end services (connection between networks and payment instrument issuers, software and related services to issuers to enable pay-or-no-pay decision and fraud screening, checking funds availability and actual debit of payer's account etc)**
- fraud and risk management services to customers and issuers of payment instruments (PIN verification and other identity authentication services, transaction monitoring, sending of alerts to customers)**
- ex ante compliance services (database and application services for identifying and reporting of suspicious transactions).**

STAGE 3: CLEARING

Activities which enable the submission of claims by members in the payment system against each other and, calculation and dissemination of information relating to payment/receipt obligations of respective members:

- **provision of services to merchants to sort their sales information and submit claims to respective networks**
- **calculation of net positions of members by networks**
- **ACH operators**
- **transmission of clearing orders**
- **distribution of advices, etc.**

STAGE 4: SETTLEMENT

Activities directly related to the posting of credits and debits in the account of the bank/financial institution with the settlement bank (central bank or any other bank) as well as in the accounts of the final payer (customer) and beneficiary (merchant or individual).

It also includes activities related to (reversal) accounting for return of transactions/payments.

STAGE 5: POST-TRANSACTION

Processes and activities related to provision of various types of value added services for.

- **statement generation (preparation, dispatch and notification of statements to consumers and merchants),**
- **reconciliation (matching invoices and payments),**
- **dispute resolution (chargeback and dispute processing services),**
- **reporting and data analysis,**
- **ex post compliance services (reporting to authorities for AML and terrorist financing, back-feeding to ex ante databases)**

**HOW DOES ALL OF THIS AFFECT
REGULATION/LEGISLATION?**

**HOW LEGAL BARRIERS AND
REGULATORY ARBITRAGE
AFFECT INNOVATION AND
DEVELOPMENT?**

MAJOR LEGAL ISSUES LINKED TO “E-COMPONENT”

- **Legal recognition of electronic transfers and electronic archives [e-cheques]**
- **Data privacy and security**
- **Authentication/electronic signature**
- **Fraud and mistake**
- **[Irrevocability and finality of orders, enforceability of netting schemes, protection against insolvency]**

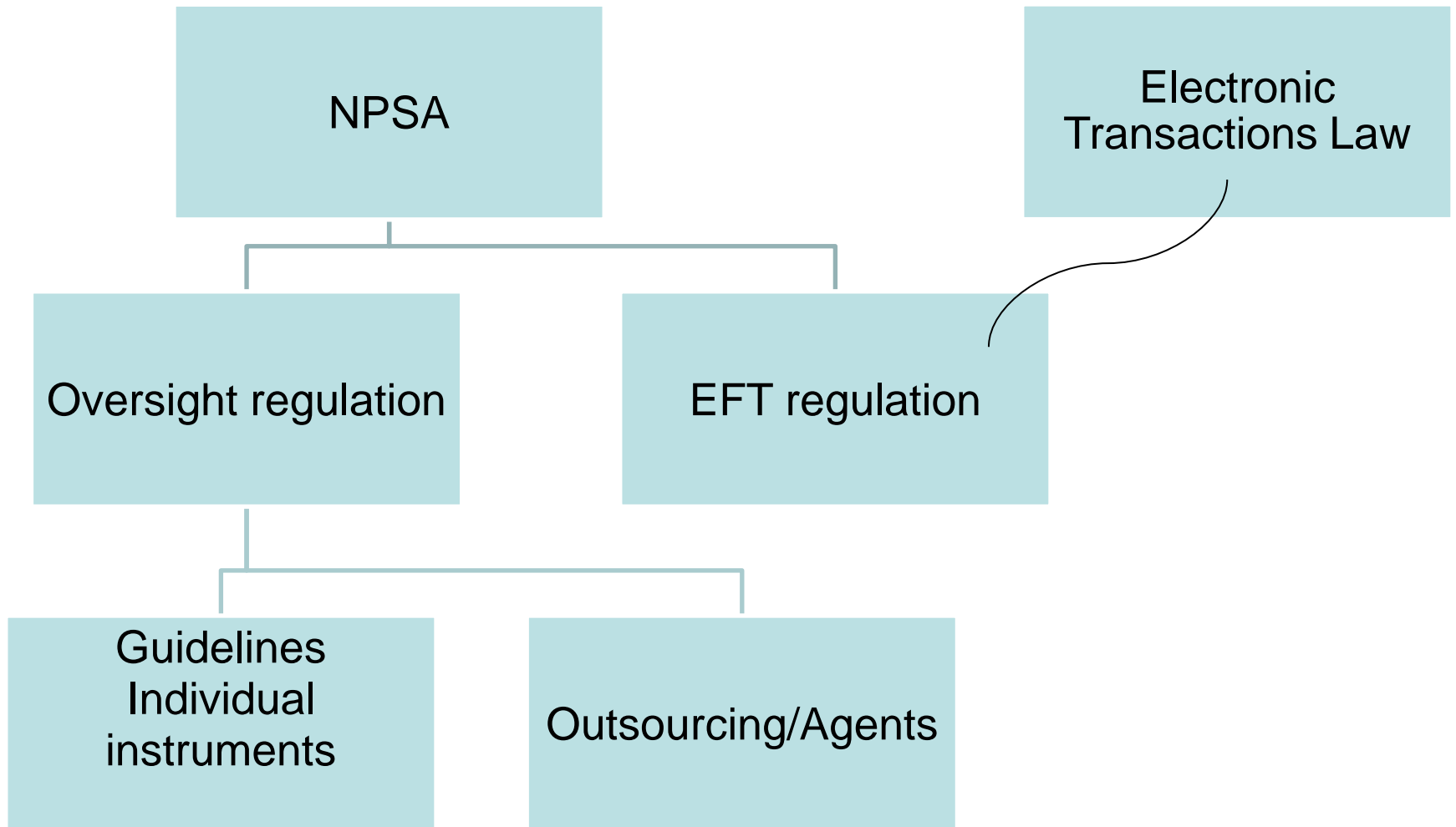
MAJOR REGULATORY ISSUES LINKED TO “E-COMPONENT”

- **Role of non-banks**
- **Risk governance**
- **Access to systems/competition (essential facilities? Silos models?)**
- **Interoperability**
- **Outsourcing and agency**
- **Stored-value instruments and protection of customers’ funds**

HIGH-LEVEL RECOMMENDATIONS FROM INTERNATIONAL BEST PRACTICES

- **Eliminate legal barriers: you can use existing legal standards (UNCITRAL Model Law on Credit Transfers to be updated but still of good use)**
- **Innovation includes both: technology and business models. Consider them jointly**
- **Take a technology-neutral approach**
- **Proportionality as a value: not to under-regulate, not to over-regulate**
- **Adopt an holistic approach: innovation in payments has to be seen within the National Payments System**

	Definitions	Major issues	Regulatory	Objectives of the Central Bank	Legal issues
Settlement	-Finality	-Central Bank Accounts -Collateral -Central Securities Depository (CSD)	-Operational role of the CB/intra-day credit -Oversight	-Systemic risk (financial stability)	-Finality
Processing	-System -Clearing -Netting	-Access to systems (Banks, MFI, Government, any PSP??) -Interoperability	-Oversight -Designation vs. licensing of systems	-Systemic risk (financial stability) -Contestability of the market -Efficiency	-Netting -Insolvency -Protection of collateral
Services to clients	-Payment Service Provider (PSP) -Payment instrument	-Who should be a PSP? (only banks, also MFI, any entity duly monitored, including money transfers and MNOs ??) -Agents -Outsourcing	-Oversight vs. supervision -License vs. approval vs. registration -Requirements to enter the market -“E-money” -On-going oversight	-Contestability of the market -Efficiency -Consumer (users) protection -AML/KYC -Access to finance -Redress procedures	-Electronic means of transfer (mistake, fraud, allocation of risks) -electronic records -Checks truncation



Thank you

**Payment Systems Development Group
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