M-Payments
Legal and Regulatory Issues

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Mobile Payments: Global Markets, Empowered Consumers and New Rules?
What Will it Take to Make Mobile Payments Mainstream in North America?

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University of Washington School of Law, Seattle

Professor Benjamin Geva
Osgoode Hall Law School of York University, Toronto, Canada
<bgeva@osgoode.yorku.ca>
# Retail Payment Mechanisms

<table>
<thead>
<tr>
<th><strong>E-Money</strong> (&quot;SVP&quot;)</th>
<th><strong>Access</strong></th>
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</thead>
<tbody>
<tr>
<td>Prepaid cards (&quot;electronic purse&quot;)</td>
<td>Prepaid software products</td>
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<tr>
<td>Microprocessor chips embodied in plastic card (turning &quot;memory card&quot; into a &quot;smart-card&quot;)</td>
<td>&quot;digital cash&quot;(specialized software installed on a standard personal computer)</td>
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<tr>
<td>Public Access Terminal POS/ATM</td>
<td><strong>Home Banking</strong></td>
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<tr>
<td></td>
<td>PC</td>
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<td></td>
<td>Internet</td>
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<tr>
<td>Value available to consumer is stored on an electronic device in consumer’s possession</td>
<td>Value available to consumer is recorded in bank account</td>
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- Single or multi-purpose (closed or open systems)
- Restricted (i.e. geographically) or unrestricted systems
- Single and multi-issue systems
E-Money System
General Model

Clearing and settlement domain

System Operator

Issuer

Acquirer

User 1

User 2

User n

Retail Domain

Load

Deposit

Load

Deposit

Deposit

Operations Agreements

Operating Agreements

Claim

Interbank transfer

Interbank transfer

Issuing/acquiring/operating domain

E-money flows are represented by

Other flows are represented by

[Source: CPSS, “Security for Electronic Money” (Basle, BIS Aug. ’96)]
Mobile Payments

Any payment in which a mobile device is used for the purpose of initiation, activation and/or confirmation of the transaction.

Mobile device: mobile phone; PDA (Personal Digital Assistant).

Use of mobile phones beyond voice calls but rather as digital communication devices facilitating data transfer.
M-payment: alternative definition

“… the process of two parties exchanging financial value using a mobile device for goods and services”

A mobile device is defined as “a wireless communication device, including mobile phones, PDA, wireless tablets, and mobile computers”.

[Source: Mubarik and Pau, Mobile Payments in the Netherlands]
Mobile payments--categories

- Access linking a conventional bank account such as checking, credit card, or debit card.

“Mobile phone companies ... act as banks and allow ... customers to deposit and withdraw funds using ... mobile accounts”

[Leyva, 2008, 34 Fall Vermont Bar J. 62,63]
M-payments to third parties: communication

- SMS - short messaging (text) service
- NFC - Near field communication*
- WAP - web-based payments using wireless application protocol

* NFC can be used only for ‘proximity payments’ – SMS and WAP can be used for ‘remote payments’
RFID (radio-frequency identification) Technology

Contactless payment models—payment by waving:

1. Contactless payment card—passive RFID technology—has a silicon chip and antenna imbedded in card—passive until it comes with an RFID-enabled reader installed on POS terminal;

2. NFC-enabled mobile cellular phones are able to send and receive data: [i] as passive—like card—may be tapped in front of an RFID-enabled reader; [ii] as active—may initiate data transfer by being waved over magazine or poster with a passive RFID chip—more robust than contactless cards.
M-PESA Phone Menu Structure Used to Initiate Customer Transactions

Walled Garden Model
Carrier-centric

High-value Garden Model
Carrier-centric

Buy Direct Model

FI-centric

Combination of buy direct model and walled garden

Carrier/FI-centric

Mediated Model

FI-centric

Mediated model with payment aggregator

FI-centric

Mobile Device as Access Device: Legal Issues in the US

- Accessing consumer asset account with an ‘FI’ [DTI or issuer]: EFTA/Reg. E apply
- Accessing credit line: TIL/Reg. Z apply
- Does UCC Article 4A apply?
- Is issuer ‘money transmitter’ under UMSA?
“Money transmission” under UMSA

102(14) .... selling or issuing payment instruments, stored value, or receiving money or monetary value for transmission. The term does not include the provision solely of delivery, online or telecommunications services, or network access.
"Payment instrument“ under UMSA

102 (16) … a check, draft, money order, traveler's check, or other instrument for the transmission or payment of money or monetary value, whether or not negotiable. The term does not include a credit card voucher, letter of credit, or instrument that is redeemable by the issuer in goods or services.
"Stored value" under UMSA

102 (21) … monetary value that is evidenced by an electronic record.
M-Payments: Selected Issues I

- Security and safety
- Is it “money”?
- Impact on monetary policy:
  - non-cash withdrawal from reservable accounts reducing central bank seigniorage income
  - “Decoupling” of central bank operations from markets
M-Payments Selected Issues II

Regulatory issues:
- Does prepayment constitute “deposit”?
- Can M-money be issued by non-bank?
- If yes, ought issuer to be regulated?
- Is prepayment covered by deposit insurance?
M-Payments Selected Issues III

- Legally, does m-payment differ from payment by means of an access device?
- Does m-money payment constitute “credit-push” or “debit-pull” mechanism?
- Nature as “decentralized” or “distributed” accounting system
- Is a mobile device an SVP – and as such a mere variation on the traveler’s check, certified check or bank draft?
M-Payments Selected Issues IV

- Private law issues:
  - Special rules regarding unauthorized use, errors or system malfunction?
- When payment is made?
- Who is agent for – and who is liable to whom?
- Who is paymaster, and does paymaster’s obligation discharge or suspend obligation:
- Is ‘payment transaction’ legislation needed?
Section 2 of EU E-money Directive (2009)

1. "electronic money institution" means a legal person that has been granted authorisation under Title II to issue electronic money;

2. "electronic money" means electronically, including magnetically, stored monetary value as represented by a claim on the issuer which is issued on receipt of funds for the purpose of making payment transactions as defined in [PSD, that is, “an act, initiated by the payer or by the payee, of placing, transferring or withdrawing funds ...”], and which is accepted by a natural or legal person other than the electronic money issuer ...
‘Payment Service Providers under EU PSD (2007)

- Credit institutions, that is, effectively deposit taking institutions or commercial banks;
- Electronic money institutions;
- Post office giro institutions which are entitled under national law to provide payment services;
- Payment institutions within the meaning of this Directive;
- The European Central Bank and national central banks when not acting in their capacity as monetary authorities or other public authorities; and
- Member States or their regional or local authorities when not acting in their capacity as public authorities.
Excluded from EU PSD

Certain payment transactions executed by means of a mobile telephone or any other digital or IT device: “where the goods or services purchased are delivered to and are to be used through a telecommunication, digital or IT device,” but only as long as “the telecommunication, digital or IT operator does not act only as an intermediary between the payment service user and the supplier of the goods and services.” [i.e. when it is the seller]