

# Mobile Banking and Remittance Innovation

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# Federal Reserve Perspective on Mobile Banking and Payments

- Use of mobile phone as channel for banking and payments is beginning to evolve – question of when
- As a central bank the Fed is responsible for ensuring integrity and safety of nation's payment system
- As the US retail payments system evolves and changes, the Fed needs to be informed and involved to understand impact
- Fed can help to identify potential gaps in regulatory oversight related to consumer security, privacy, and education

# Mobile payments and banking – different adoption experiences – different risks

## Mobile banking:

- Cell phone used for bill pay, alerts, funds transfers, balance checking
- Faster adoption in developed markets with many existing payment options already

## Mobile payments:

- Proximity and remote (P2P) payments
- Faster adoption in emerging markets
- Leapfrogging generations of financial modernization from cash and barter to electronic airtime transfers
- Opportunities for financial inclusion

# Banking or paying by mobile introduces new players to retail payment systems

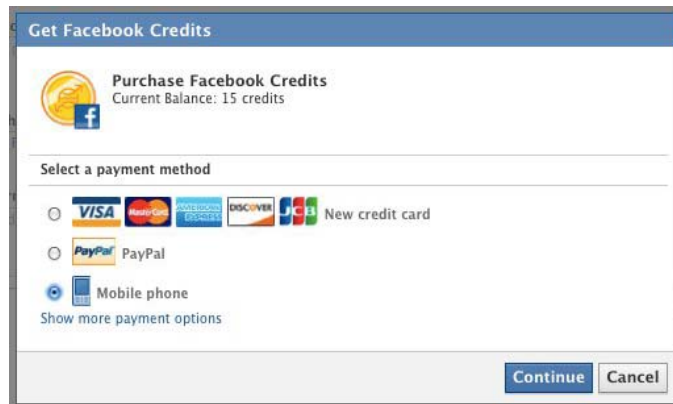
## Traditional Payment System Participants

- Financial Institutions
- Customers & merchants
- Payment Card Networks
- Clearing/settlement organizations
- Third party processors & online payment providers
  - PayPal, Amazon, Google, Facebook

## New Mobile Technology Participants

- Mobile carriers (MNOs)
  - AT&T, T-Mobile
  - Verizon, Sprint
- Handset manufacturers
  - Apple (iPhone)
  - Nokia, Samsung, Motorola
  - RIM (Blackberry)
  - Google (Android)
- Chip-makers (NFC, SE)
- Software solution providers
- Bill-to-mobile vendors

# We have a growing world of third party alternative payment providers





# Mobile payments adoption strong in the developing world



# State of domestic and cross-border P2P payments

- ▶ Emergence of telecom-centric business models
- ▶ Branchless banking using retail agents
- ▶ Airtime evolving as form of currency in some markets
- ▶ MSBs partnering with carriers – implications for banks?
- ▶ More cross-border mobile money transfers as telecoms partner for roaming



**Mobile money agent**

Source: CGAP 3/17/2010

# Mobile Payment Opportunities

- Consumer convenience and efficiency
- Security – in emerging markets safer than cash
- Financial inclusion enhanced as mobile can reach remote geographic locales
- In place of card payments – improved fraud reduction with improved chip intelligence versus higher risk mag-stripe
- Chip technology will allow for better authentication and credentialing to mitigate identity theft, fraudulent payments, and money laundering
- International compatibility using common technology standards for global acceptance
- Cross-selling and convergence with other non-payment mobile services



# Looking forward: Fed convenes first mobile payments industry workgroup

- As central bank wanted to understand mobile payments industry development and barriers to adoption
- Boston and Atlanta Fed research groups convened first meeting in January, 2010
- Goal to engender dialogue between key representatives from conjoined telecom and banking industries
- Attendees represented organizations in the mobile payments value chain including: large banks, major mobile carriers, card associations, payment processors, online payment service providers, payment, carrier and merchant trade associations, mobile handset, security and solution vendors

# Work group suggests foundational principles

- Use of a mobile device as wallet to include multiple payment options
- Clearing and settlement of payments is through existing channels (credit/debit card, ACH, mobile phone accounts, etc.)
- Near field communication with dynamic data functionality should be deployed for security
- Trusted Service Managers (TSMs) to provision security and manage ecosystem participants
- Technology standards domestically and globally interoperable for universal payment acceptance
- Regulatory clarity will be established

# Mobile Payment Industry Workgroup Moving Forward

- Participants have conceptually agreed to a number of basic principles for a future mobile payments environment
- Published position paper representing views of the MPIW – coauthored by Boston and Atlanta Fed
- Industry debate, private negotiations, collaborative work, and escalation of issues will probably follow
- Private experiments and pilots are also likely to continue
- Paper suggests establishing a more formal consortium to meet regularly and continue dialogue that can guide the mobile payments industry going forward

# Benefits of Collaborative Approach to Mobile Payments

- Educates and informs diverse participants on different views and concerns around mobile payments
- Can discuss issues and barriers as they are discovered and help with resolution
- May help to avoid risks that occurred as internet payments evolved
- Allows for proprietary innovation while promoting shared framework for interoperability
- May help shape the future payments landscape

# Policy and regulatory considerations

- ▶ Establish principles for prudential regulation to protect consumers and enhance integrity of payment systems
- ▶ International policy and regulation will need to consider shared oversight and work harmoniously as mobile payments cross geographic borders
- ▶ Balancing benefits of innovation and paradigm shift in financial inclusion with increased risks presented by digital transfers in telecom-centric services



# Where do we go from here?

- ▶ The new mobile payments landscape requires dialogue between regulatory authorities for banks and telecoms
- ▶ Need to ensure adequate oversight on country by country level without hampering innovation
- ▶ Cross-border remittances may require improved data sharing on an international basis by central banks, regulators, and law enforcement agencies as services are established in multiple geographic and legal jurisdictions
- ▶ Collaborate with other central banks and industry leaders to find ways to mitigate emerging risks in the mobile channel
- ▶ Service provider programs for KYC and money laundering prevention will be important

# Recent Fed resources on mobile banking and payments:

- ▶ Mobile Payments in the United States: Mapping Out the Road Ahead

Darin Contini and Marianne Crowe, Federal Reserve Bank of Boston, Cynthia Merritt and Richard Oliver, Federal Reserve Bank of Atlanta, and Steve Mott, BetterBuyDesign, March 2011

- ▶ Mobile Money Transfer Services: The Next Phase in the Evolution of Person-to-Person Payments

Cynthia Merritt, Federal Reserve Bank of Atlanta, August 2010