Overview of Mobile Payments in the United States

By Erin F. Fonté

Introduction

Mobile payments technology is poised to create a globally dramatic shift in how individuals pay for goods and services, track spending, and manage personal finances. Mobile payments are also becoming big business for non-financial institution alternative payments. Add the fact that many of these services are offered by non-financial institutions that are "disintermediating" the traditional banking relationship, and there is the potential for a fundamental shift in how individuals conduct day-to-day purchasing and interact with their finances.

In the US, financial institutions have, over the past several years, rolled out mobile banking products via short message service (SMS) text messaging and smart phones. Many of these products are extensions of online banking offerings, and some are new and innovative, such as "deposit by phone" services with which customers deposit checks by taking photos of the checks with their smart phones.

Outside the traditional financial institution (FI[1]) channels, alternative payments providers such as PayPal are offering payments services and taking over the primary relationship with consumers. There has also been a lot of media and business press on which payments start-ups are getting funded and acquired, whether Square or PayPal are signing up the biggest and best merchants, and the lucrative potential upside for the company (such as Google Wallet) or joint venture (such as Isis or the newly formed Merchant Customer Exchange[2]) that becomes the dominant standard for the mobile wallet.

Despite a flurry of activity in the mobile payments space in the last few years, the proliferation of mobile services by FIs, and the ever-increasing list of new mobile payments providers, so far nothing has truly changed regarding the payments infrastructure and how unbanked and underbanked individuals gain access to the FI accounts, debit cards, credit cards, and other "minimum necessary access devices" needed for participation in mobile banking and mobile payments.

Mobile Banking vs. Mobile Payments

To discuss where the US is currently in terms of financial inclusion and financial integrity (*i.e.*, effectively policing for fraud, money laundering, and antiterrorist financing issues), it is important to understand the types of entities and end-user customers currently involved in mobile payments in the US. A "payment" at its most basic level is the transfer of money or wealth or value from one person or entity to another. As has been the case for about the past twenty years, and remains the case today, there are *five and only five* methods to process and settle payment transactions: Cash, check (including substitute checks created pursuant to the federal Check 21 Act), credit card and debit card rails (which include debit card, credit card, and stored value card transactions), automated clearing house (ACH) rails, and wire transfers.

Even non-FI mobile payments providers must still use FIs in clearing and settling payments on the back end. In the US, FIs accept, collect, and process payments, and participate in large-scale clearing and settlement systems such as debit card networks, credit card networks, the ACH network, and check-image exchange networks such as the Electronic Check Clearing House Organization (ECCHO) and The Clearing House. Mobile banking involves a financial institution's customer's accessing and conducting transactions and performing other services directly to an account held at the FI through the customer's mobile device.

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Mobile Banking

The mobile phone and smart phone are transforming the banking industry. Over a decade ago, online banking "freed customers from brick-and-mortar branches, allowing them to execute transactions at any time."[3] Now consumers do not even want to be tethered to bulky desktop or laptop computers, and banking via mobile phone and tablet devices is the new evolution in "bricks-to-clicks." It is projected that by 2013, an estimated 53 million consumers will bank by mobile phone (nearly 52 percent in annual compound growth from 2009).[4]

Common Mobile Banking Services

Many FIs (both large and small) now offer some combination of the following banking services via mobile devices, either by short messaging service (SMS) that older model "feature" phones use, or a truncated mobile Web site or mobile application (mobile app).[5] Common mobile banking services now include:

Account balance inquiries and statements;
Bill payment services;
Funds transfers;
Branch and ATM location services; and
Transaction alerts based on dollar thresholds or other parameters.

Emerging Mobile Banking Services

FIs are also beginning to offer new and innovative services via mobile devices. For example, USAA was the first FI to utilize the camera function on customers' mobile devices to create its USAA Deposit@Mobile™ service with which a customer can take a photo of the front and back of a check and deposit the check to their bank account via the captured image.[6] Several FIs now offer a remote check deposit app for their customers.[7]

FIs are also rolling out new and innovative mobile features with which the customer can exercise more control over their debit card or other aspects of their account, such as a debit card "on/off" switch via mobile banking. This service allows the customer to turn the debit card to "off" status when the card is lost or stolen, or if the customer just wants to make sure the card is dormant. Other debit card controls include: (1) increasing daily withdrawal limits at ATMs, (2) increasing daily debit card purchasing limits (for big transactions such as buying a sofa), and (3) allowing foreign transactions when the customer is traveling outside the US.[8]

Several FIs are now building personal financial management tools into their mobile banking services and offerings.[9] FIs are even entering into the daily deal arena, with Bank of America offering coupons to holders of Bank of America debit and credit cards. The Bank of America coupons might also contain a geo-location or "contextual" component based on where the customer is or what their typical buying habits are.[10]

Mobile Banking and Financial Services Regulations

Until very recently, there was some uncertainty as to whether certain federal and state banking and financial services laws, rules, or regulations would apply to mobile banking services. In many respects, payments initiated via a mobile device are functionally the same as existing payments and funds transfers, and the mobile device is just another form factor.[11] When in doubt, the safest course of action was to assume that if the underlying activity is governed by a particular law, rule, or regulation, then such law, rule, or regulation would also govern that same activity when conducted on a mobile device.

For example, if a mobile device is used to initiate an electronic funds transfer to or from a demand deposit account held at an FI, then the mobile device is most likely an "access device" under the federal Electronic Funds Transfer Act (EFTA)[12] and Regulation E[13] (issued by the Federal Reserve Board pursuant to the EFTA). EFTA and Regulation E govern electronic funds transfers (EFTs) to and from a customer's account at an FI. EFTs are defined as transfers of funds initiated by electronic means, including, but not limited to, ATM transfers, debit card transactions, direct deposits and withdrawals, telephone initiated transfers, and online bill payments.

Most importantly for both mobile banking and mobile payments is that the definition of an "access device" under Regulation E is actually much broader than many in the payments industry think. The definition of "access device" under Regulation E is "a card, code, or other means of access to a consumer's account, or any combination thereof, that may be used by the consumer to initiate electronic fund transfers."[14] Some industry participants mistakenly think that Regulation E only applies to debit cards.

Similarly, if a mobile device accesses a line of credit for funding transactions, or is used to apply for a loan product, then the federal Truth in Lending Act (TILA)[15] and corresponding Regulation Z (promulgated by the Federal Reserve Board)[16] will apply, and the FI will need to meet the TILA disclosure and other requirements. The federal Gramm-LeachBliley Act (GLBA)[17] and corresponding Regulation P[18] (promulgated by the Federal Reserve Board) apply to any "financial institution" as defined under GLBA, and FIs offering mobile banking services are clearly covered by GLBA/Regulation P regarding customer privacy and data security issues. FIs are also expressly covered by Bank Secrecy Act and anti-money laundering requirements, as discussed further below.

Previous uncertainty as to whether current banking regulations apply to mobile banking services was laid to rest on June 29, 2012. In testimony and written statements provided to the US House Financial Services Subcommittee on Financial Institutions and Consumer Credit, at a hearing entitled "The Future of Money: Where Do Mobile Payments Fit In the Current Regulatory Structure?" representatives from the Federal Reserve Board (Federal Reserve), the US Department of the Treasury's Financial Crimes Enforcement Network (FinCEN), and the Consumer Financial Protection Bureau (CFPB) all made statements that current financial services regulations apply to mobile banking and mobile payments.[19] And these regulators also stressed that application of such laws is not dependent upon the type of entity engaging in the services (*i.e.*, FI or non-FI), but rather is dependent on the nature of the underlying activity itself. (The testimony and written statements are discussed in depth below.)

Mobile Payments

The term "mobile payments" includes payments services and products offered not just by FIs, but by emerging and alternative payment providers as well, such as PayPal (a non-FI account that processes and settles transactions between buyers and sellers), or BilltoMobile (allowing payment for goods and services by charging to a mobile phone bill, and then the customer chooses how to settle and pay the phone bill), or Square (initially launched as an alternative credit/debit card processing service for local and small merchants).

Current mobile payments operating models include:

The FI model (discussed above);

The mobile payments service provider model in which the provider "offers mobile payment capabilities to its service users (which may include small merchants)." Transactions are processed over the provider's systems, and may access an existing customer funding source held at or issued by a third party, such as a demand deposit account or debit/credit/stored value card, or there may be a dedicated funding account at a provider; and

The mobile network operator model in which the "mobile network operator offers mobile payments capabilities for purchases using mobile devices associated with its wireless network." Transactions are generally processed over the operator's wireless network and charges appear on the purchaser's wireless bill or are funded on a prepaid basis.[20]

The three categories listed above describe the mobile payments model—who has the primary customer relationship, who is processing and settling the transactions, etc. There are also generally two different mobile transaction types (proximity payments and remote payments), and two points of "disintermediation" of traditional payments (disintermediation at point-of-sale (POS) and disintermediation at wallet).

Proximity Payments

Proximity payments occur in instances in which technology is embedded in, attached to, or displayed on the purchaser's mobile device and interfaces with the merchant's POS equipment to initiate payment. Proximity payments generally involve the purchase of goods and services from a merchant at a physical POS. For example, the Starbuck's payment app is tied to a customer's Starbuck's gift card, and when launched for payment on the mobile device, creates a unique bar code displayed on the customer's mobile phone and read by the Starbuck location's POS terminal. Near field communication (NFC) will be used by mobile wallet providers such as Isis,[21] and is designed to promote secure transactions via wireless communications between an NFC reader in a POS terminal and a secure NFC chip either embedded in or affixed to a mobile device. Proximity payments are also commonly referred to as "scan and go" or "tap and go" transactions.

Remote Payments

Remote payments occur when the purchaser uses their mobile device to initiate a payment to a merchant or other payee without regard to proximity to the POS or payee themselves. There are two general types of remote mobile payments: Mobile money transfer transactions and purchase payment transactions. An example of a mobile money transfer transaction is the person-to-person payments provided by a company called Popmoney. "Customers will send money directly from their bank accounts to another person using the other person's bank-account number, e-mail address, or mobile-phone number."[22] An example of purchase payment transactions done remotely are the services provided by BilltoMobile in which merchant charges are directly billed to a purchaser's cell phone account.[23]

Disintermediation at Point of Sale (POS)

The most famous and successful company to achieve disintermediation from the established credit/debit card networks and processors is Square, a mobile POS startup co-founded by Twitter founder Jack Dorsey and launched in 2009.[24] The initial goal of Square was to use a plug-in device for an iPhone or iPod (called a "dongle," and, not surprisingly, square in shape) that turns the mobile device into a mobile POS terminal. Square has been one of the most successful non-FI entrants into the payments space since PayPal, and as of June 2012, was processing $6 billion in payments annually.[25]

After seeing the success of Square, the companies that manufacture POS hardware and software created their own mobile POS devices. Verifone created its mobile POS device called Sail. Intuit, the company that created QuickBooks, launched GoPayment, a mobile POS device and virtual signature service that integrates with QuickBooks. PayPal launched PayPalHere.[26]

Disintermediation at the Wallet

Disintermediation at the wallet refers to the current race by several companies to create a virtual wallet in which all of the payment cards in the average person's wallet—debit cards, credit cards, store gift cards, stored value cards—are housed in a virtual wallet app on the purchaser's smart phone. The smart phone is then used as the payment device that will interact with the POS for a proximity payment or to conduct a remote payment. There is currently a lot of time and money being invested by major credit card networks, mobile network operators (such as AT&T, Verizon, T-Mobile, and Sprint), major banks, major alternative payments providers (such as PayPal), and major technology companies (such as Google) to create and corner the market on the mobile wallet. Although there are several other mobile wallet startups, the activities of mobile wallet providers Isis, Google Wallet, and PayPal are currently garnering a lot of attention.[27]

Isis is a joint venture between AT&T, T-Mobile, and Verizon, but is also partnered with Visa, MasterCard, and American Express. JPMorgan Chase, Capital One, and Barclaycard have agreed to issue cards for the wallet.[28] Google Wallet involves MasterCard and payment processor First Data Corporation, and Sprint Nextel is the designated mobile network operator (but Google Wallet only works on Sprint mobile devices). Google Wallet is also going to include some form of coupon or offer redemption, and may be expanded to include loyalty and rewards components as well.[29] The PayPal wallet just gained major publicity by announcing a partnership with Discover to bring PayPal's digital wallet and payment services to millions of merchants in the Discover network, with services currently scheduled to roll out in 2013.[30] Mobile payments industry pundits are waiting to see what Apple does on the mobile payments/mobile wallet front. Apple's recent announcement of Passbook, along with confirmed rumors that Apple will include NFC technology in the iPhone 5, lead industry observers to speculate as to whether Apple has its own mobile wallet offering in mind given that it manufactures the iPhone.[31] And the recently announced Merchant Customer Exchange (discussed earlier in this article) is a merchant-created mobile wallet initiative.

Mobile Payments and Financial Services Regulations

As previously mentioned, there was until very recently some uncertainty as to whether certain federal and state banking and financial services laws, rules, or regulations would be applied to mobile payments services. The sections below summarize the positions taken by representatives from the Federal Reserve, FinCEN, and the CFPB that current financial services regulations apply to mobile banking and mobile payments activities.[32]

Federal Reserve Board

Stephanie Martin, Associate General Counsel at the Federal Reserve Board of Governors, commented that the Federal Reserve believes many current financial services regulations (GLBA/Regulation P, EFTA/Regulation E, TILA/Regulation Z, etc.) are written broadly enough to cover a lot of mobile banking and mobile payments activity.[33] With regard to non-FIs that provide mobile payments services, "[t]o the extent that nonbanks are involved, whether and the degree to which federal or state statutes and rules are applicable depends on the nonbank's role in the transaction and the specific provisions of the particular statute or rule."[34]

Martin stated that a mobile payment is just like any other type of payment in that it is ultimately moving money between bank accounts. This is true even if payment is initially charged to a consumer's bill for services (such as a cell phone bill) or to a prepaid balance held by a nonbank. Settlement is still happening over the same existing rails. As Martin stated, "a new interface is not a new phenomenon."[35]

With regard to non-FIs, Martin stated that existing laws are in place to cover these services as well, such as EFTA/Regulation E and other federal consumer laws, and they apply to nonbank mobile payments (including stored value cards or funds associated with a stored value account), and that non-FIs are also subject to CFPB rulemaking and interpretive authority.[36] Martin stressed that whether a particular law, rule, or regulation applies often depends on a non-FI's role. For example, a third party mobile app platform vendor just running "back office" services for the bank means the bank is still responsible. But for more independent non-FI's such as managers of stored value card programs, money transmitters, and mobile network operators, financial services laws, rules, and regulations may be more likely to apply based on the specific activities carried out by the non-FI.[37]

Martin concluded her testimony by explaining that regulators are still figuring out the extent to which new and developing methods of mobile payments are subject to current laws, but when the mobile payments marketplace is more fleshed out, that will be the time to determine if additional legislative or regulatory proposals are needed.[38]

Financial Crimes Enforcement Network

James Freis, Director of FinCEN, gave testimony regarding FinCEN's position about the applicability of BSA/AML provisions to mobile payments.[39] He stated that "FinCEN's rules for prepaid access, including mobile payments, are specifically designed to make [money laundering] more difficult to occur in significant amounts without leaving a trail and with obligations on the industry to alert FinCEN of [BSA/AML] red flags."[40]

Freis said that mobile banking involves communication and direction from an account holder about their account at a depository institution. If mobile banking facilitates communication between the FI and its customer, then the FI is already covered by BSA/AML requirements. Mobile payment, however, is the direction of funds outside of a bank account to effect payments or other transfers. Freis went on to state that:

> FinCEN's regulations also have made it clear that the acceptance and transmission of currency, funds, or other value that substitutes for currency from one person and the transmission of currency, funds, or other value that substitutes for currency to another person or location, by any means, constitutes money transmission, and that any person wherever located doing business wholly or in substantial part within the United States engaging in money transmission, regardless of any other business lines the person is engaged in—such as the provision of telecommunications services—would likely be a money services business under FinCEN's regulations, and as such must register and comply with all the reporting, recordkeeping, and monitoring requirements applicable to a money transmitter.[41]

Freis also stated that "FinCEN's regulations take a comprehensive approach in this area, focusing more on the activity *at issue* as opposed to the particular electronic communication vehicle."[42] With regard to mobile payments, Freis stated that "[f]or the sake of clarity, let me emphasize that a payment system allowing the transfer of funds from one mobile phone to another, such as by reference to a phone number, is subject to FinCEN's regulations for prepaid access."[43]

Freis said that FinCEN has provided law enforcement with a "reference manual" regarding mobile payments.

In preparing the manual, FinCEN has "seen an interesting trend in the mobile payments industry where different telecommunications systems and/or financial mechanisms may merge and become interwoven in the same overall mobile payments transactions."[44] Freis also said, toward the end of his testimony, that "[c]onsistent with past practice, FinCEN will interpret its regulations as they apply to various business models and provide guidance as necessary to industry with respect to the application of FinCEN's requirements."[45]

Consumer Financial Protection Bureau (CFPB)

Although she did not provide written testimony at the hearing, Marla Blow, the Assistant Director for Card and Payments Markets at the CFPB, did provide a written statement for the record that was submitted to the subcommittee.[46] In her statement, Blow echoed many of the same points and themes stated by Martin and Freis that existing financial and consumer protection regulations govern mobile payments. Blow wrote that "[o]ur mission is to make consumer financial markets work for consumers, honest businesses, and the economy as a whole. In carrying out this mission, the Bureau has a key role to play in the regulatory, supervisory, and oversight regimes governing mobile payments."[47]

Blow stressed that under the Dodd–Frank Act, the CFPB is required to regulate consumer financial products and services under federal consumer financial law. And she pointed out that with regard to mobile payments in particular:

> The Bureau is engaged in ongoing coordination with the Federal Trade Commission, the Federal Communications Commission, the Federal Deposit Insurance Corporation, the Federal Reserve Board, the Office of the Comptroller of the Currency, the Treasury Department's Financial Crimes Enforcement Network, and state banking regulators. We are committed to working closely with state and federal partners on this issue.[48]

Blow stated that the CFPB is closely monitoring new developments and changes in the marketplace and in consumer use patterns regarding mobile payments. The primary responsibility for monitoring developments in mobile payments within the CFPB resides with the Card and Payment Markets team, part of the division of Research, Markets, and Regulations. Blow indicated that the Card and Payment Markets team has responsibility over credit, debit, prepaid, and mobile payments markets, and that this division of the CFPB is engaged in ongoing discussions with relevant parties, as well as other state and federal agencies.[49]

Blow went beyond testimony and statements from other regulatory agencies by stating that although mobile payments can introduce innovation, they can also pose significant risks to consumers:

> New technologies may be designed in ways that may not fall within existing regulatory frameworks. Existing rules may not have anticipated new developments enabled by modern technology and may prove inadequate for addressing emerging concerns. To the extent that technology companies begin to play roles traditionally performed by banking institutions, we may need to reconsider how well our existing regulations apply to a changed environment.[50]

Conclusions on Regulatory Environment and Mobile Payments Industry Workgroup

What is clear from the testimony and statements provided by representatives of the Federal Reserve, FinCEN, and the CFPB is that: (1) regulatory agencies are monitoring the developing market and ecosystem for mobile payments; (2) the agencies and regulators take the position that many mobile payments services are already covered by existing laws, rules, and regulations that apply based on the *type of activity* being performed, not based on whether the provider is a bank or non-FI; and (3) as the mobile payments ecosystem becomes more mature, regulatory agencies will determine whether new legislation or regulations are needed to address any regulatory gaps governing mobile payments transactions.

Over the course of 2010 and 2011, the Mobile Payments Industry Workgroup (MPIW), which is being operated jointly by the Atlanta Federal Reserve and the Boston Federal Reserve, held a series of meetings with various industry players and regulators regarding the development of the mobile payments ecosystem and the regulatory landscape. On April 24, 2012, the Atlanta Federal Reserve and Boston Federal Reserve convened a meeting with representatives from federal and state banking agencies, the Federal Trade

Commission (FTC), and the Federal Communications Commission (FCC) to discuss issues, concerns, and potential gaps in regulatory coverage.[51]

Several perspectives and overall themes emerged from the regulator meeting on mobile payments. First, the complexity of the regulatory framework for providers of mobile financial services in the US prompts analysis of potential coverage gaps.[52] Mobile payments essentially bring together two heavily regulated industries that are governed by separate sets of laws, rules and regulations—banking/financial services and telecommunications. There is a potential for regulatory gaps depending on the model and transaction flow of mobile payments.

Regulators also have an interest in ensuring safety and soundness of consumer protection in the emerging mobile payments environment.[53] Existing regulatory guidance provides sufficient governance for existing mobile payments services. Regulators will need to stay abreast of mobile industry trends and developments, however, to monitor the emerging risk environment effectively. Third-party, non-FI vendor management in new mobile payments business models is critical to ensuring safety and soundness in mobile retail payments systems.

Mobile Banking/Mobile Payments and Anti-Money Laundering Issues

Anti-Money Laundering/Bank Secrecy Act and Mobile Banking

Although mobile banking is providing greater freedom and ease to banking customers, it also presents new opportunities for criminals to launder money and finance terrorism.[54] Money launderers and terrorist financiers can attempt to gain access to a mobile banking account by stealing a mobile phone with inadequate security features, or by attempting to hack transactions as they occur via a wireless network, or by tricking customers into disclosing their financial account information via "mishing" attacks or fake bank apps. A "mishing" attack consists of a text message sent to a mobile phone stating something such as "Notice: Issues Found On Your Shazam Mastercard. Please Call 13035780902!"[55] When the mishing victim calls the number, they reach an automated recording demanding the entry of the Personal Account Number (PAN) and additional confidential information. If the victim falls for the scam, then they voluntarily hand over their confidential financial account information to the fraudsters.

Some FIs have reported fake bank apps available on the Apple App Store and Android Marketplace (now Google Play).[56] The fake banking apps purport to be legitimate banking apps of actual FIs, but they are in reality "shell apps" that trick customers into entering user name, passwords, log in information, and other mobile banking information.

The United and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (the USA PATRIOT Act)[57] requires that FIs follow various requirements designed to prevent terrorists from accessing financing. FIs are required to develop policies and procedures to detect and prevent money laundering, and to submit suspicious activity reports (SARs) on suspected money laundering transactions. Given the increased risks that mobile banking poses, FIs must integrate their mobile banking operations into their overall Bank Secrecy Act[58] and anti-money laundering (BSA/AML) policies and procedures.

As made clear by the recent testimony of Martin, Freis, and Blow (all discussed above), regulatory agencies have taken the position that current banking regulations, including BSA/AML regulations, apply to banks engaged in mobile payments.

Anti-Money Laundering/ Bank Secrecy Act and Mobile Payments

The recent testimony of regulators discussed above indicates that regulatory agencies have taken the position that current banking regulations, including BSA/AML regulations, also apply to non-FIs engaged in mobile payments depending upon the type of activity in which the non-FI is engaged. For example, Martin stated "[t]he applicability of existing laws to [non-FIs] that are providing mobile payments services often depends on the [non-FI's] role in the transaction."[59]

If a non-FI's activities fall within FinCEN's definitions of "money services business" (MSB), then those entities must register as an MSB with FinCEN. In addition, the non-FI's activities could also trigger registration under individual state money transmission laws. In general, non-FIs that are money services businesses

or money transmitters are also subject to the USA PATRIOT Act BSA/AML requirements.

Some non-FI payments organizations in the mobile payments arena, such as PayPal, have registered under the laws of certain states as an MSB/money transmitter, and have also complied with the recently updated FinCEN MSB registration requirements. On July 18, 2011, FinCEN adopted a final rule enacting amendments to the Money Services Business Definitions Rule[60] that, among other things:

- Revises MSB definitions to further clarify what activities subject a person to the BSA rules pertaining to MSBs;
- Updates the MSB definitions to reflect past guidance and rulings and current business operations and to accommodate evolving technologies and emerging lines of business;
- Separates the provisions dealing with stored value from those dealing with issuers, sellers, and redeemers of traveler's checks and money orders to more readily accommodate changes to be implemented in FinCEN's pending Prepaid Access Rulemaking; and
- Replaces the term "currency dealer or exchanger" with the new term "dealer in foreign exchange," a term used to include the exchange of instruments other than currency as a category of MSB.[61]

To the extent that a non-FI mobile payments provider will have the primary customer relationship and will be enrolling the customer in its payment services and conducting "customer identification program" activities normally performed by FIs, the non-FI will have to comply with the "customer identification program" requirements under applicable BSA/AML laws, rules and regulations.

Mobile Payments in the US Are Currently about Affluence and Advertising, Not Access

Mobile Payments in the US Developing Differently than in Many Other Countries

Other countries, including developed and developing nations, have outpaced the US in mobile payments adoption. The adoption rates of mobile payments in the US have been hampered by a well-performing electronic payments network tied to use of traditional plastic cards, and by lack of some of "the more favorable conditions that exist in other countries where mobile payments have been more widely implemented."[62]

In developing countries, for example, individuals are using mobile text messaging/SMS for remittances and person-to-person money transfers. Several countries have tremendous market potential for these types of services due to extensive unbanked populations and lack of comprehensive physical and/or card network banking infrastructure, in addition to widespread mobile phone use.[63] In many of these countries, mobile payments can replace the riskier use of cash where not many payment alternatives exist (India, Kenya, and the Philippines, for example).[64] In Kenya, for instance, M-PESA was a solution to the problem of a large number of risky cash transactions and the need for families to move money from urban to rural areas. Kenya has a limited banking infrastructure, but more than 50 percent of the population has mobile phones.[65] "M-PESA users can send money to other mobile phone users as well as pay for school fees, bus transfers, cab fare, and other similar small purchases."[66]

In some developed countries, particularly within Europe and Asia, individuals use mobile phones with NFC chips to pay for transit and/or retail purchases. Strong partnerships have developed between mobile network operators, banks, and governments in many of these countries. Many of these countries also have economies with greater reliance on cash transactions, which mobile payments can replace (*i.e.*, credit/debit transactions are not as prevalent as in the US). Governments have also been engaged early on in the process, providing early regulatory clarity. "Asian countries lead (*e.g.*, Japan, Korea, and Singapore), but Europeans have experienced some success with mobile purchase payments and mass transit."[67] In Japan, NTT DoCoMo has the FeliCa e-wallet application that utilizes NFC. The mobile network operator provides payment services, and charges appear on the customer's wireless bill.[68]

In contrast to many developed and developing countries, the US has a very well-established electronic payments system with numerous existing options to meet consumer needs outside of mobile, and US consumers have historically used cash less frequently, relying more on debit and credit card transactions. It is currently debatable whether mobile payments are meaningfully faster or easier than current payment methods widely

used in the US. The US also relies less on mass transit, which is an industry area in which mobile payments have enjoyed success in other developed countries.[69]

Mobile Payments Adoption by "Banked" Individuals in the US

The Consumer Research Section of the Federal Reserve Board's Division of Consumer and Community Affairs (DCCA) carried out an online survey in December 2011 and January 2012 regarding the use of mobile technology to access financial services and make financial decisions in the US.[70] A report regarding the survey findings was released in March 2012. Key findings of the survey with regard to the US population considered "banked" were:

- Mobile phones and mobile Internet access are in widespread use (87 percent of the US population has a mobile phone, and 44 percent of mobile phones are smart phones);
- The ubiquity of mobile phones is changing the way consumers access financial services (21 percent of mobile phone owners used mobile banking within last 12 months; most common uses were checking account balances or recent transactions and transferring money between accounts);
- Mobile phones are also changing the way consumers make payments (most common use was online bill payment, and 21 percent of mobile payments users transferred money directly to another person's bank, credit card or PayPal account); and
- Perceptions of limited usefulness and concerns about security are holding back the adoption of mobile financial services (58 percent of mobile phone users said their banking needs were being met without the use of mobile banking, and more than one-third of mobile phone users find it easier to pay with another method or don't see any benefit from using mobile banking).[71]

So with regard to the "banked" population in the US, the Federal Reserve survey found that many individuals with smart phones are using mobile banking functions, and a growing number of these individuals are making mobile payments outside of the common mobile banking channel:

> Consumers use a variety of methods to make mobile payments, but the most common method is to input a credit card, debit card, or prepaid card number into a mobile phone (66 percent). Other mobile payment techniques used by consumers include making payments directly from a bank account (45 percent); using Google Wallet, PayPal, or iTunes (22 percent); or adding a payment to a mobile phone bill (8 percent).[72]

Mobile Payments Adoption by "Unbanked" and "Underbanked" Individuals in the US

"A significant number of Americans do not have a bank account of any kind, and many make regular use of alternative financial services such as payday lenders, check cashers, rent-to-own services, money orders, or pawn shops."[73] A 2009 survey by the Federal Deposit Insurance Corporation (FDIC) found that 7.7 percent of US households had no checking or savings account, and thus were defined as unbanked.[74] An additional 17.9 percent of US households had a bank account but still used an alternative financial service at least once per year, and so were classified as "underbanked."[75] Over the past several years, the rise in the use of gift cards, stored value cards, and prepaid cards has provided quasi-bank account functionality to a large portion of the underbanked and unbanked population.

Although there may be a digital divide in the US regarding Internet and broadband access across the socioeconomic spectrum, the divide does not exist for mobile phone access. Approximately 75 percent of the US adults in households earning less than $20,000 per year have a mobile phone of some type, and 20 percent have a smart phone.[76] The Federal Reserve's "Consumers and Mobile Financial Services Report" found that mobile phone use is high among younger generations, minorities, and those with low levels of income—"groups that are prone to be unbanked or underbanked."[77] A recent survey by the Center for Financial Services Innovation shows that individuals under the age of twenty-five are increasingly underbanked—some as a matter of choice—and appear comfortable with alternative financial services.[78]

Mobile phones have the potential to expand financial access to the unbanked and underbanked by reducing transaction costs and increasing the accessibility of financial products and services. In the Federal Reserve's report, survey results found that the underbanked make comparatively heavy use of both mobile banking and

mobile payments, with 29 percent having used mobile banking and 17 percent having used mobile payments within the past twelve months. Additionally, 62 percent of the underbanked who use mobile payments have used it to pay bills, and 10 percent of the completely unbanked reported using mobile banking in the past twelve months, with 12 percent of those users having made a mobile payment.

The Mobile Payments Industry Workgroup (MPIW) summary of the April 24, 2012 meeting with regulators stated that:

> The goal of financial inclusion is to help low and moderate income (LMI) and underserved consumers enter the financial mainstream. Emerging technologies such as mobile may decrease costs to the underserved, but ultimately it is important to move the underserved into the banking system for financial management, financial literacy and security of financial transactions. In other countries, governments are more involved in implementing mobile payments for the underserved. Is this a policy issue for the United States to consider?[79]

The MPIW regulator meeting summary also stated that prepaid access is expanding from card and Internet to the mobile device, and that many of the underserved are migrating directly from cash-based payments to mobile (prepaid) accounts. "This group is a growing portion of the US population and represents our most vulnerable consumers who need to be educated and protected under Reg. E."[80] The MPIW summary also stated that consumer advocates are watching developments in prepaid card and mobile closely.

The FDIC and US Department of Treasury are looking at mobile payments for the underserved, but they don't have any specific current initiatives. "The MPIW does not have a targeted objective for mobile financial inclusion, but both the Federal Reserve and Treasury are interested in finding opportunities for mobile solutions to support the underserved."[81]

Will BSA/AML Keep Unbanked Out of Mobile Payments?

With regard to the unbanked in the US and whether the FATF Recommendations, as incorporated into BSA/AML policies, will result in exclusion of the unbanked from mobile banking and mobile payments, the answer is probably "yes" for mobile banking, and "maybe" for mobile payments.

The reasons that individuals in the US are unbanked are: (1) a general dislike of dealing with banks (24 percent); (2) not writing enough checks to justify having a bank account (23 percent); (3) an unwillingness to pay bank service fees and charges that are deemed too high (13 percent); (4) and banks would not allow them to open an account (10 percent).[82] Reasons 1–3 are preference reasons, and reason 4 is a category of "unbankable" individuals.

Mobile banking customers must still have a bank account, and in order to have a bank account, individuals must have all of the elements required by the BSA/AML "customer identification program" minimum requirements—name, address, date of birth, and driver's license or ID number. A certain segment of the unbanked population in the US—undocumented immigrants—may never be able to open a bank account, or obtain a debit card, credit card, or reloadable prepaid card without proper documentation.

With regard to mobile payments, however, and to that segment of the unbanked population that is truly "unbankable" due to its inability to meet minimum "customer identification program" requirements, there may be a way to turn cash into digital stored value without having to go through the "customer identification program" process. For example, if a mobile network operator allowed charges to an individual's cell phone bill, and then the unbanked individual paid their monthly bill in cash via a walk-up bill pay option, then it would be possible for that unbanked individual to conduct certain mobile payments transactions. Similarly, if an unbanked individual paid cash for an anonymous store gift card, uploaded that card information into a mobile wallet, and then used the mobile wallet for transactions utilizing those gift card funds, there is the possibility that the unbanked individual would never be subjected to a "customer identification program" process.

In other words, those funding mechanisms for mobile payments that are issued by regulated entities subject to BSA/AML requirements (debit cards, credit cards, general purpose reloadable prepaid cards, ACH)

may not be accessible to an "unbankable" individual who lacks proper documentation to complete the minimum "customer identification program" (CIP) process. Funding mechanisms that are issued or provided by unregulated entities that do not have to abide by CIP requirements may be accessible to "unbankable" individuals, however, if the funding mechanism is ultimately cash that is turned into stored value or virtual currency by the service provider. The ability to evade CIP requirements is ultimately tied to whether the service provider's activities are deemed "regulated," and how effective their CIP and BSA/AML policies and procedures are if the service provider is regulated.

Current Focus of Mobile Payments Initiatives

Many surveys, regulators, and consumer groups see the potential that mobile banking and mobile payments have for lowering transaction costs and fees, and ultimately moving the "bankable" population from the ranks of the unbanked and underbanked into the fully banked. Such a transition is not, however, the current focus of many mobile payments initiatives.

There have been several publications tracking the mobile payments startups that have been receiving backing and venture capital funding over the past few years. Overwhelmingly, these are companies that are chasing affluent mobile payments customers, or are otherwise trying to tie mobile payments in with the larger business goals of loyalty/rewards programs, targeted advertising and couponing, predictive modeling, and using transaction data to fuel big data analytics on how consumers purchase and consume goods and services.[83] As discussed earlier in this article, there are several start-ups that are successfully disintermediating traditional payments at the POS, such as Square, Intuit GoPay, and PayPal, but those services do not necessarily bring the unbanked or underbanked into a world of more financial services.

The race is currently on among these big three mobile wallet ventures to roll out pilot programs and sign up merchants in exclusive arrangements, and each represents four major traditional industry segments involved in mobile payments attempting to stake out their territory and make significant money in the mobile payments space: (1) existing card networks and issuing banks (Isis, Google Wallet); (2) major alternative payments providers (PayPal); (3) mobile network operators who own the "pipes," the networks over which mobile payments and m-commerce flow (Isis, Google Wallet); and (4) technology companies that have recently discovered the payments space and want to be a player (Google, Apple?). If Apple decided to enter into the mobile wallet arena, that could be a game-changer for the race to find "one wallet to rule them all."

The "holy grail" of the mobile wallet concept is a wallet that is: (1) universally accepted by all merchants; (2) contains multiple types of funding options (debit card, credit card, store gift card, general purpose reloadable card, ACH, provider-funded accounts, and delayed payment such as BillMeLater); (3) has a built-in and automatic merchant or bank loyalty/rewards function; (4) can be used for targeted coupons, daily deals, and geo-location and contextual advertising; (5) has the capability to interface with social media; and (6) provides incredibly rich data on consumer buying and behavior. The question is whether any one company or group of companies can pull this off.

There are, however, a few startups and established companies entering the mobile space that do present an opportunity for the unbanked and underbanked to gain more access to financial services and other perks such as loyalty/rewards programs. For example, startup Lenndo combines microfinance with social media, hoping to help the world's underbanked consumers improve their financial status by using social media to evaluate their creditworthiness.[84]

Loyalty program Punchcard is partnering with mobile payments service Wipit to offer business owners the ability to create loyalty and rewards programs targeting America's 60 million "cash-preferred" consumers. Punchcard rewards users for frequenting businesses, but instead of loyalty cards or key tags, Punchcard provides users a mobile app they can use to take photos of receipts from local merchants participating in the program. This allows users to earn "punches" on their virtual loyalty cards. It's a simple, relatively intuitive method for verifying purchases, and also serves as a way for consumers to track their loyalty points.

Wipit is a prepaid mobile account that consumers can fund using cash at any one of 10,000 retail partner locations. It's meant to be used for mobile and

online purchases by consumers who lack access to a bank account. Together, Wipit and Punchcard seek to give the cash-preferred crowd their own easy-to-use digital loyalty program to replace cards and key tags. "Payments and loyalty go hand and hand," Andy Steuer, CEO of Punchcard, told Mobile Payments Today.[85] "Wipit's cash-preferred consumers are value conscious and a great fit for a program like Punchcard that continues to reward them for their loyalty. We're excited to help businesses cater to Wipit's targeted consumer audience of more than 70 million prepaid wireless subscribers in the US who are rapidly adopting smart phones."[86]

Wipit CEO Richard Kang has noted that "the growth of smart phones in the prepaid wireless segment has created a huge opportunity to engage cash-preferred consumers with loyalty programs and location-based promotions."[87]

One industry area that may greatly assist the unbanked and underbanked is the ability to use prepaid cards for mobile payments. Although other developing countries moved directly from cash to mobile, the unbanked and underbanked population in the US moved from cash, to prepaid, and then to mobile. To the extent that prepaid card issuers and distributors have mobile offerings, that could allow the segments of unbanked and underbanked individuals currently using prepaid to use prepaid for mobile payments.

Conclusion

Mobile banking and mobile payment adoption in the US is increasing and will continue to do so. FIs continue to roll out additional mobile banking services, and non-FI startups are rapidly changing the mobile payments ecosystem and also becoming big business. Many new mobile payments services are "disintermediating" the traditional banking relationship at both the POS and the wallet, and the US is entering a period of a fundamental shift in how individuals conduct day-to-day purchasing and interact with their finances.

The changes being brought about, however, have not escaped the attention of various US financial services regulators, and several federal and state regulators are watching the development of mobile banking and mobile payments. Although current regulations are adequate to cover many existing and developing mobile banking and mobile payments offerings, regulators are aware that there may be a need for additional legislative and rulemaking measures to address any gaps in regulatory coverage. In addition, the CFPB, as directed by the Dodd-Frank Act, will take an active role in reviewing and potentially regulating non-FI mobile payments providers. The FTC and the FCC have distinct roles in mobile payments as well—the FTC for USAP, privacy and geo-location issues for non-FIs, and the FCC for mobile network operators participating in mobile payments. The regulators are focused on an activity analysis, rather than an entity analysis, when evaluating how to apply existing regulations.

FinCEN has made it clear that it considers certain mobile payments activities to fall within its definition of money services businesses, and has made it clear that BSA/AML requirements apply to non-FI entities based on the type of activities in which they are engaged. FinCEN has also indicated that the US will implement the revised FATF Recommendations. Revised recommendations regarding transparency of beneficial ownership, CDD, and new technologies are particularly applicable to the mobile payments arena.

With regard to the unbanked and underbanked, current activities in mobile payments have not really, truly changed the underlying payments infrastructure in the US and how unbanked and underbanked individuals gain access to the FI accounts, debit cards, credit cards and other "minimum necessary access devices" to participate in mobile banking and mobile payments. While there are certain service providers who can facilitate cash into a mobile payments environment, those services may find themselves more regulated in the future. Current mobile payments initiatives are more about affluence and advertising, and less about access. Perhaps as the mobile payments ecosystem evolves, there will be more offerings to aid the unbanked and underbanked in gaining access to more financial services.

Practice Pointers

If you represent a technology company or startup that is going to have a payment functionality, pay close attention to regulatory issues related to money transmission, BSA/AML and privacy/data security, and take care of any regulatory hurdles on the front end.

In addition to financial regulators, state banking regulators, the Federal Trade Commission and the Federal Communications Commission all have varying roles in regulating mobile payments as well.

Notes

1. For purposes of this article, the term "financial institution" or "FI" refers to banks, savings banks, and credit unions.
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3. Timothy R. McTaggart & David W. Freese, "Mobile Banking: What Banks Need To Know When Outsourcing Their Platforms," 3 Bloomberg L. Rep. – Banking & Fin., no. 11, 2010 at 18.
4. *Id*.
5. Mobile apps are available for download through the Apple iPhone/iPad App Store, or through Google Play (formerly the Android Marketplace).
6. *See* USAA Deposit@Mobile™ information available at *https://www.usaa.com/inet/pages/mobile_banking_dm*.
7. Josh Smith, "9 Banks With iPhone Remote Check Deposit Apps," Gotta Be Mobile (June 13, 2011), *http://www.gottabemobile.com/2011/06/13/9-banks-withiphone-remote-check-deposit-apps/*.
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9. Olivia LaBarre, "Banks Fight Disintermediation With Personal Financial Management Tools," Bank Sys. & Tech. (Dec. 5, 2011), *http://www.banktech.com/channels/232200679*.
10. David Benoit, "Bank of America Looks to Enter Daily Deal World," Wall St. J. Blogs (Jan. 25, 2012, 3:26 PM), *http://blogs.wsj.com/deals/2012/01/25/bank-of-america-looks-to-enter-daily-deal-world/*.
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12. 15 U.S.C. § 1693 *et seq*. (2012).
13. 12 C.F.R. pt. 205 (2012).
14. 12 C.F.R. § 205.2(a)(1) (2012).
15. 15 U.S.C § 1601 *et seq*. (2012).
16. 12 C.F.R. pt. 226 (2012).
17. 15 U.S.C. § 6801 *et seq*. (2012).
18. 12 C.F.R. pt. 216 (2012).
19. *See* "The Future of Money: Where do Mobile Payments Fit in the Current Regulatory Structure?" Hearing Before the H. Subcomm. on Fin. Inst. and Consumer Credit, 112th Cong. (2012), available at *http://financialservices.house.gov/calendar/eventsingle.aspx?EventID=300656* [hereinafter "Future of Money Hearing"].
20. Douglass, *supra* n.11, at 7.
21. *See generally* Isis Mobile Wallet, *http://www.paywithisis.com/whatis.xhtml* (last visited Sept. 12, 2012).
22. "Annual Field Guide to Alternative Payments," Digital Transactions, May 2012, at 34, 46, available at *http://www.nxtbook.com/nxtbooks/dt/201205/index.php?startid=34#/38* [hereinafter "Annual Field Guide"].
23. *Id*. at 36.
24. Nan Palmero, "Trends in Banking & Finance," San Antonio Bus. J. (July 6, 2012), available at *http://www.bizjournals.com/sanantonio/print-edition/2012/07/06/trends-in-banking-finance.html?page=all*.
25. *Id*.
26. *Id*.
27. *See id*; "Annual Field Guide," *supra* n.22, at 34–47.
28. "Annual Field Guide," *supra* n.22, at 40.
29. *Id*.
30. Roger Cheng, "PayPal Brings Digital Wallet to Merchants Through Discover," CNET (Aug. 22, 2012), available at *http://news.cnet.com/8301-1035_3-57497979-94/paypal-brings-digital-wallet-to-merchants-throughdiscover/*.
31. Bryan Yurcan, "Is Apple Preparing a Mobile Wallet?" Bank Sys. & Tech. (Aug. 28, 2012), available at *http://www.banktech.com/payments-cards/240006257*.
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33. "The Future of Money: Where do Mobile Payments Fit in the Current Regulatory Structure?" Hearing Before the H. Subcomm. on Fin. Inst. and Consumer Credit, 112th Cong. (2012) (statement of Stephanie Martin, Assoc. Gen. Counsel, Bd. of Governors of the Fed. Reserve Sys.), available at *http://financialservices.house.gov/uploadedfiles/stephanie_martin_testimony.pdf* [hereinafter "Martin"].
34. *Id*. at 1–2.
35. *Id*. at 3.
36. *Id*. at 5–6.
37. *Id*.
38. *Id*. at 6.
39. "The Future of Money: Where do Mobile Payments Fit in the Current Regulatory Structure?" Hearing Before the H. Subcomm. on Fin. Inst. and Consumer Credit, 112th Cong. (2012) (statement of James H. Freis, Jr., Director, Fin. Crimes Enforcement Network, US Dept. of Treasury), available at *http://financialservices.house.gov/uploadedfiles/james_freis_testimony.pdf* [hereinafter "Freis"].
40. *Id*. at 2.
41. *Id*. at 5.
42. *Id*. at 4 (emphasis added).

43. *Id*. at 9.

44. *Id*. at 12.

45. *Id*. at 13.

46. "The Future of Money: Where do Mobile Payments Fit in the Current Regulatory Structure?" Hearing Before the H. Subcomm. on Fin. Inst. and Consumer Credit, 112th Cong. (2012) (statement of Marla Blow, Ass't Director, Card & Payment Mkts., Consumer Fin. Prot. Bureau,), available at *http://financialservices.house.gov/uploadedfiles/hhrg-112-ba15-wstate-cfpb-20120629.pdf* [hereinafter "Blow"].

47. *Id*. at 1.

48. *Id*.

49. *Id*.

50. *Id*. at 2.

51. Marianne Crowe et al., "The US Regulatory Landscape for Mobile Payments" 2 (2012), available at *http://www.bos.frb.org/bankinfo/payment-strategies/publications/2012/us-regulatory-landscape-for-mobile-payments.pdf*. (NOTE: The MPIW released a follow-up report in May 2013 titled "US Mobile Payments Landscape–Two Years Later" (2013), available at *http://www.bos.frb.org/bankinfo/payment-strategies/publications/2013/mobile-payments-landscape-two-years-later.htm*).

52. *Id*. at 3.

53. *Id*. at 4–5.

54. McTaggart & Freese, *supra* n.3, at 19.

55. *See, e.g.*, "Fraud Alert/ID Theft," Linn Cnty. State Bank, available at *http://www.linncsb.com/fraud.asp* (last visited Sept. 18, 2012).

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57. Pub. L. No. 107-56, 115 Stat. 272 (2001) (codified in various sections of the United States Code).

58. Federal Bank Secrecy Act statutes are codified at 31 U.S.C. §§ 5311–5314e, 5316–5330, 5331, and 5332e (2012); 12 U.S.C. §§ 1829b, 1951–1959e (2012); Title 18, U.S.C. Crimes and Criminal Procedure (Money Laundering) (2012); Title 18 U.S.C. Crimes and Criminal Procedure (Federal Crime of Operating an Unlicensed or Unregistered Money Transmitting Business) (2012). Federal Bank Secrecy Act Regulations are codified at 31 C.F.R. Chapter X (2012).

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61. *Id*.

62. Douglass, *supra* n.11, at 9.

63. *Id*. at 10.

64. *Id*.

65. *Id*. at 12.

66. *Id*.

67. *Id*. at 11.

68. *Id*. at 12.

69. *Id*.

70. Bd. of Governors of the Fed. Reserve Sys., "Consumers and Mobile Financial Services" 1 (2012), available at *http://www.federalreserve.gov/econresdata/mobile-devices/files/mobile-device-report-201203.pdf* [hereinafter Fed. Reserve].

71. *Id*.

72. *Id*. at 12.

73. *Id*. at 4.

74. Fed. Deposit Ins. Corp., "FDIC National Survey of Unbanked and Underbanked Households" 10 (2009), available at *http://www.fdic.gov/householdsurvey/2009/full_report.pdf*.

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76. Aaron Smith, Pew Research Ctr., "35% of American Adults Own a Smart Phone" 8 (2011), available at *http://pewinternet.org/~/media//Files/Reports/2011/PIP_Smartphones.pdf*.

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78. Corey Stone & Joshua Sledge, "Financial First Encounters: An Examination of the Fractured Financial Landscape Facing Youth Today" 7 (Ctr. for Fin. Serv. Innovation, White Paper, 2010), available at *http://cfsinnovation.com/system/files/first_encounters_white_paper_12_16_0.pdf*.

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80. *Id*. at 9.

81. *Id*.

82. Fed. Reserve, *supra* n.70, at 19.

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86. *Id*.

87. *Id*.