How Mobile Solutions Help Bridge the Gap: Moving the Underserved to Mainstream Financial Services

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Payment Strategies

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I. Introduction

According to the 2011 FDIC National Survey of Unbanked and Underbanked Households, more than one in four U.S. households are either unbanked or underbanked, conducting some or all of their financial transactions outside of the mainstream banking system.\(^1\) While these consumers may not have accounts at formal financial institutions, many of the unbanked have mobile phones. Mobile technology coupled with product innovation can provide viable solutions that help underserved consumers access safe, secure, convenient and affordable financial services, and foster financial inclusion.\(^2\) Until recently, mobile banking-like features, such as mobile alerts, bill payment, money transfers and remote deposit capture, were only available to traditional banking customers, who have checking or savings accounts. Today, many nonbank financial services providers and prepaid card programs offer mobile banking capabilities, making it possible for underserved consumers to take advantage of the convenience and utility of such services.

This report reviews ten currently available payment products that include mobile banking features with the potential to help underserved consumers meet their financial needs—American Express (Amex) Bluebird, Banking Up UPside Card, BB&T MoneyAccount, Boost Mobile Wallet Plus, Chase Liquid, GoBank, Moven, Regions Now Banking Card and Simple. These products are offered by banks and nonbanks and represent a broad portfolio of available features and services that are suitable for a diverse underserved population with varied preferences and financial needs.

Selected products had to offer some mobile banking/payment capabilities that would be potentially beneficial to the underserved. All products reviewed offer mobile account accessibility (24 x 7 anytime, anyplace) and mobile banking features. Most of the products also have broad market availability (e.g., nationally and regionally). While not a prerequisite, some products are reloadable general purpose prepaid accounts.

The report findings are based on a review of the product websites, field research (e.g., registration and use of accounts as possible), and interviews with product providers. The analysis describes the benefits and

\(^1\) Federal Deposit Insurance Corporation (FDIC), “2011 FDIC National Survey of Unbanked and Underbanked Households,” September 2012, p. 4. Retrieved from http://www.fdic.gov/householdsurvey/2012_unbankedreport.pdf. The FDIC defines the unbanked as households where no one had a checking or savings account and the underbanked as households with a checking and/or a savings account that used non-bank money orders, non-bank check cashing services, non-bank remittances, payday loans, rent-to-own services, pawn shops, or refund anticipation loans (RALs) in the past 12 months. Throughout this report, the term “underserved” will be used to collectively refer to the unbanked and underbanked, unless otherwise specified.

\(^2\) Financial inclusion is defined as promoting access to and use of safe, affordable financial products and services, and educating consumers about ways to become fully integrated into the banking system. Availability of banking and payment services to the entire population without discrimination is a prime objective of financial inclusion public policy.
strengths of each product’s mobile features in meeting the needs of the underserved, and offers suggestions for improvement. The analysis also explores the challenges to consumer adoption and concerns of product providers, and suggests recommendations to overcome these challenges.

II. Who Are the Underserved?

Several studies attempt to quantify the number of underserved consumers in the U.S., although estimates vary based on differing methodologies and definitions. The 2011 FDIC National Survey of Unbanked and Underbanked Households (2011 FDIC study) found that over 28 percent of U.S. households conduct some or all of their financial transactions outside of the mainstream banking system – 8.2 percent of households are unbanked and 20.1 percent are underbanked. According to the Board of Governors of the Federal Reserve System 2013 Consumer and Mobile Financial Services report, 9.5 percent of consumers reported that neither they nor their spouse/partner had a checking, savings, or money market account, while 9.9 percent of consumers reported being underbanked.

The underserved consumer segment is a diverse group that varies by demographics and geographic location. According to the 2011 FDIC study, some of the highest rates of the underserved are found among non-Asian minority households, lower income households, younger households, and unemployed households. The 2011 FDIC study also found that geographically, the South region of the U.S. has the largest proportion of underserved households. The underserved rely on alternative financial services (AFS) for varied reasons and make greater use of cash or other informal financial arrangements.

The 2011 FDIC study reported several reasons why consumers did not have bank accounts. The most common reasons were: not needing or wanting one; not having enough money to justify an account; and not writing enough checks to make an account worthwhile. Other reasons included: dislike of dealing with banks; excessive fees and service charges on bank accounts; inconvenient bank hours and locations; and identification, credit or banking history problems. Some consumers used AFS because traditional banks and bank accounts did not meet their financial needs. Others perceived AFS providers as having

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3 FDIC, September 2012, p. 5.
5 The FDIC separates AFS into two categories: transaction and credit products. The former includes nonbank money order, nonbank check cashing, and nonbank remittances. The latter includes payday loans, pawn shops, rent-to-own stores, and refund anticipation loans. This report focuses on AFS transaction products.
more transparent fee structures and convenient operating hours; lower barriers to qualification; and offering a variety of products in one location. These products include check cashing, money orders, bill payment services, small dollar loans and prepaid mobile minutes.

The Board’s 2013 Consumer and Mobile Financial Services report indicated that a significant number of underbanked (90%) had mobile phones, and over half of those phones (56%) were smartphones. Fifty-nine percent of the unbanked had mobile phones, of which one-half were smartphones. Furthermore, the underbanked population made substantial use of mobile financial services. Almost 49 percent of the underbanked with mobile phones reported using mobile banking in the past 12 months, while over 30 percent reported using mobile payments. Underbanked respondents cited having a smartphone and liking the convenience of using it for mobile banking as their top two reasons for why they adopted mobile banking.6

III. Mobile Financial Service Solutions for the Underserved

The variety of available mobile financial services is as diverse as the consumer segment that it aims to serve. The product features reviewed in this paper, coupled with mobile accessibility, enable consumers to conduct financial transactions and manage their money on their own schedule and from virtually any location. Several of the products are prepaid accounts with mobile banking capabilities and remove some of the barriers encountered with traditional bank accounts, such as credit history problems, minimum balance requirements, and overdraft fees.

These products include mobile banking features such as new account enrollment, customizable alerts, bill payment, person-to-person (P2P) payments and mobile remote deposit capture (mRDC). Some also include mobile personal financial management (PFM) and savings tools. A few are not specifically designed for the underserved market, such as Simple which requires a checking account, but are included in this analysis because of the potential benefits that the mobile financial features could offer the underserved.

Figure 1 provides an overview of the mobile financial services products analyzed in this report.

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6 Data from Federal Reserve Board’s Division of Consumer and Community Affairs’ survey of consumers’ use of mobile financial survey conducted in November 2012.
### Figure 1 Mobile Financial Services Product Analysis

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>PRODUCT PROVIDER</th>
<th>ACCOUNT TYPE</th>
<th>LAUNCH DATE</th>
<th>MOBILE WEB &amp; APP IMPLEMENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEX Bluebird</td>
<td>AMEX</td>
<td>Prepaid</td>
<td>2012</td>
<td>4Q 2012</td>
</tr>
<tr>
<td>BB&amp;T Money Account</td>
<td>BB&amp;T Bank</td>
<td>Prepaid</td>
<td>2011</td>
<td>1Q 2011</td>
</tr>
<tr>
<td>Boost Mobile Wallet Plus</td>
<td>Wipit, Sutton Bank, Ria Financial Services</td>
<td>Prepaid</td>
<td>2013 (beta)</td>
<td>2Q 2013</td>
</tr>
<tr>
<td>Chase Liquid</td>
<td>Chase</td>
<td>Prepaid</td>
<td>2012</td>
<td>4Q 2012</td>
</tr>
<tr>
<td>GoBank</td>
<td>Green Dot Bank</td>
<td>Checking</td>
<td>2013</td>
<td>2Q 2013</td>
</tr>
<tr>
<td>Moven</td>
<td>Movencorp, CBW Bank</td>
<td>Prepaid</td>
<td>2013 (beta)</td>
<td>2Q 2013</td>
</tr>
<tr>
<td>Simple</td>
<td>Simple Finance Technology, Bancorp Bank</td>
<td>Checking</td>
<td>2012</td>
<td>3Q 2012</td>
</tr>
</tbody>
</table>

Consistent with the popularity of the Google Android and Apple iOS operating systems among U.S. consumers, including the underbanked, all products listed in Figure 1 (except Boost Mobile and Moven) offer mobile applications for both of these operating systems.\(^7\)

Figure 2 illustrates the distribution of smartphones among the underserved by operating system as reported in the 2012 wave of the Federal Reserve Board’s Survey of Consumers’ Use of Mobile Financial Services (Board’s 2012 mobile survey). Over half of the underbanked have Android smartphones and 30 percent have iPhones. Similarly, 59 percent of the unbanked have Android smartphones and 17 percent have iPhones.\(^8\) Chase and Regions Bank offer mobile apps for Microsoft Windows and Blackberry phones, respectively.

Simple and Moven require the newest versions of the smartphone operating systems in order for their customers to have the optimal user experience and to be able to access all the apps’ features. This limits access for consumers with older model mobile phones that do not support the newest versions of Android or iOS.

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\(^7\) Boost Mobile Wallet only offers an app for Android devices because it does not offer Apple iPhone. Moven only offers an iPhone app, but will offer an Android app in the future.

\(^8\) Data from Federal Reserve Board’s Division of Consumer and Community Affairs’ survey of consumers’ use of mobile financial survey conducted in November 2012.
Figure 2. Smartphone Operating Systems Among Underserved Consumers

<table>
<thead>
<tr>
<th>Which type of smartphone do you have?</th>
<th>Underbanked, n=105</th>
<th>Unbanked, n=46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Android</td>
<td>52%</td>
<td>59%</td>
</tr>
<tr>
<td>iPhone</td>
<td>17%</td>
<td>30%</td>
</tr>
<tr>
<td>Blackberry</td>
<td>4%</td>
<td>10%</td>
</tr>
<tr>
<td>Other</td>
<td>8%</td>
<td>4%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>5%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Note: Among underbanked and unbanked consumers who have a smartphone
Source: Federal Reserve Board, Survey of Consumers’ Use of Mobile Financial Services, November 2012

The current U.S. banking and payments system requires some essential financial account components to allow consumers to conduct basic transactions, such as cash withdrawals and deposits, funds transfers, and purchases. At present, mobile technology alone cannot sufficiently enable consumers to complete all basic transactions. Other access channels, such as bank branches, ATMs, payment card and reload networks, are still necessary. All the products reviewed provide consumers with a network-branded debit card, ATM cash withdrawals (with first in-network ATM withdrawal free) and FDIC insurance. All but Boost Mobile Wallet Plus accept direct deposit of paychecks, government benefit payments (e.g., social security payments and unemployment benefits), and federal tax refunds. The Boost Mobile Wallet website indicates availability of the direct deposit service in the future. Some products allow consumers to deposit cash at bank branches, in-network ATMs and retail locations, and with cash reload packs. The NetSpend card\(^9\) has an opt-in overdraft feature, while the UPside card\(^10\) has the ability to use a credit card to reload the account. Figure 3 shows the basic account features for all of these mobile financial services

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\(^9\) NetSpend’s Overdraft Protection is an optional service that MetaBank offers to eligible customers. Eligibility requires customers to receive a $200 direct deposit every 35 days. Upon enrollment, customers can opt-in for overdraft protection for signature/PIN purchases, ACH debits, and ATM transactions. Customers are charged up to $15.00 for overdrafts over $10.00, with a maximum of three overdraft fees per calendar month. More information is available at https://www.netspend.com/.

\(^10\) In order to load funds with a credit/debit card, the customer must have at least $1,000 loaded onto his UPside card via direct deposit and have been an active cardholder for at least three months. Once the customer has met these requirements, the credit/debit card load functionality will appear on the customer’s online card account. The credit/debit card needs to be in the customer’s name and the billing address needs to match the address on the customer’s UPside card account.
The next section will discuss in further detail some of the key features that drive greater function and convenience among mobile financial services products.

**Figure 3. Mobile Financial Services Basic Account Features**

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>CARD BRAND</th>
<th>FDIC INSURANCE</th>
<th>DIRECT DEPOSIT</th>
<th>IN-NETWORK ATM</th>
<th>CASH DEPOSIT LOCATIONS</th>
<th>MAX. ACCOUNT BALANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amex Bluebird</td>
<td>Amex</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Walmart $10,000</td>
</tr>
<tr>
<td>Banking Up Upside Card</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Walmart $10,000</td>
</tr>
<tr>
<td>BB&amp;T MoneyAccount</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>BB&amp;T branches $10,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>In-network ATMs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>VisaLink retail locations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2,500</td>
</tr>
<tr>
<td>Boost Mobile Wallet Plus</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Boost Mobile authorized dealer Wipit reload locations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$2,500</td>
</tr>
<tr>
<td>Chase Liquid</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Chase branches In-network ATMs</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>None</td>
</tr>
<tr>
<td>GoBank</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Walmart $50,000</td>
</tr>
<tr>
<td>Moven</td>
<td>MC</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Not available</td>
<td>$10,000</td>
</tr>
<tr>
<td>NetSpend Card</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>NetSpend retail reload network</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$15,000</td>
</tr>
<tr>
<td>Regions Now Banking Card</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Regions branches In-network ATMs VisaLink retail locations</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>$7,500</td>
</tr>
<tr>
<td>Simple</td>
<td>Visa</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes^13</td>
<td>Not available</td>
</tr>
</tbody>
</table>

^11 American Express Bluebird total account balance may exceed $10,000 (up to $100,000) only as a result of direct deposit and check-by-mail add-funds transactions.  
^12 Boost Mobile authorized dealers and Wipit reload locations are located nationwide.
IV. Features of Mobile Financial Services Products that Drive Greater Function and Convenience

The increased use of smartphones by consumers has helped drive the adoption of mobile banking and is incenting some financial product providers to offer mobile account capabilities for the underserved. According to the Board’s 2013 Consumer and Mobile Financial Services report, 28 percent of all mobile phone users and 48 percent of all smartphone users reported that they had used mobile banking within the past 12 months. Many mobile banking features previously available only with traditional bank accounts are now available with prepaid products, providing opportunities to increase access to mainstream financial services among the underserved. This section highlights some of these mobile features.

New Account Enrollment

Mobile enrollment enables consumers to open an account at any time from any place without being limited to branch operating hours and locations. All products examined in this report offer new account enrollment via mobile web browser, with the exception of Chase Liquid. Bluebird, Boost Mobile Wallet Plus, GoBank, Moven and Simple also offer new account enrollment through their respective mobile apps. In most cases, a new account applicant receives immediate approval based on successful verification of his identity and other credentials supplied online, although additional documentation may be required prior to approval.

New account enrollment via mobile affords consumers more convenience, but the product providers assume greater risk associated with customer identity verification required by the USA Patriot Act and Know Your Customer (KYC) regulations. To mitigate the potential risks of identity fraud, providers use both KYC “in-wallet” and “out-of-wallet” authentication to verify applicants. Other commonly employed risk management tools for new customers include risk analytics solutions, trial deposits and

13 While it is not impossible to deposit cash into a Simple account, customers must visit a bank to create an in-person electronic funds transfer, or convert cash into a check, money order, or cashier’s check and deposit it using the Simple mobile app. Each of these options would cost consumers fees and time.


16 In-wallet verification requires an account applicant to enter his name, address, date of birth, residential or business street address and identification (ID) number (e.g., social security or driver’s license), which are validated through multiple databases.

17 Out-of-wallet verification, also referred to as knowledge-based authentication, includes questions based on personal information obtained from a consumer’s personal aggregated data file (public records), compiled marketing data, or credit reports.
transaction limits. GoBank and Simple also monitor transactions and spend patterns for suspicious activity.

**Mobile Alerts and Account Monitoring**

Mobile alerts and account monitoring services enable consumers to track their financial account activity and manage their money with greater convenience and efficiency. Mobile alerts provide real-time account activity information which gives consumers more control over their money, and may potentially influence their financial behavior. The Board’s 2012 mobile survey found that the underbanked ranked the ability to check account balances and recent transactions as the top mobile banking feature, as depicted in Figure 4. Furthermore, of the underbanked consumers who reported receiving text alerts from their bank, 70 percent received low balance alerts, 26 percent received fraud alerts, and 22 percent received payment due alerts. Of those who received low balance alerts, 53 percent reduced their spending, 37 percent deposited money into the account with the low balance, and 36 percent transferred money into the account with the low balance. Almost 70 percent of those who received payment due alerts reported that the alerts significantly improved their ability to pay bills on time.\(^{18}\)

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\(^{18}\) Data from Federal Reserve Board’s Division of Consumer and Community Affairs’ survey of consumers’ use of mobile financial survey conducted in November 2012.
All of the prepaid products examined allow consumers to use their mobile phones to track prepaid account balances and review transaction history. With the exception of Boost Mobile Wallet Plus, Moven and Simple, the products offer customizable text alert features for account balance, deposits, security, bill pay and transfers that consumers can opt-in to receive. GoBank provides alerts for daily account balance, preset thresholds for ATM withdrawals and purchases, direct deposit posts and budget summaries. The UPside card includes a mobile service to alert the customer when the prepaid account balance reaches a preset threshold or is zero.

Two-way actionable alerts are available for several products. Chase Liquid customers can set up two-way “Chase Instant Action” alerts for low balances. Customers receive real-time text message alerts for pre-set balance limits, and initiate funds transfers through the Chase mobile app by texting back transfer instructions. Customers who pay using the Moven debit card receive digital receipts after each transaction. These real-time account updates can help consumers not only manage expenses, but also track any suspicious or unauthorized transactions. NetSpend offers two-way text alerts for each transaction amount, account balance, nearest reload center locations, availability of deposits and other account specific information.
**Mobile Bill Payment**

For consumers who transact primarily in cash, bill payment can be costly, time-consuming and cumbersome. The process entails cashing a paycheck at a check cashing agent and purchasing a money order; cashing a paycheck to load a prepaid card to pay electronically; or travelling to the physical business location to pay a bill in cash on the payment due date. Mobile bill payment offers value, utility, and convenience to the underserved by reducing time spent paying bills and offering more control over when and how they pay.

All ten products allow consumers to use their debit cards to pay bills electronically at a biller’s website. Bluebird customers can pay bills via a mobile browser, similarly to initiating electronic bill payments from a checking account through a financial institution’s online banking site.¹⁹ The Boost Mobile Wallet app connects customers to over 3,500 billers and offers a fee-based expedited payment service. NetSpend prepaid cardholders can pay bills via mobile web with *MoneyGram Express Payment* service. Moven plans to use Payveris, an online and mobile payment company that provides online bill pay and interbank transfer solutions, to offer bill payment services in the future.²⁰

Bluebird, GoBank, Simple and UPside card offer a virtual check feature through their mobile websites and apps as a more convenient and less expensive alternative to money orders. Each product provides a digital user interface that resembles an actual check with fields for consumers to enter payee information (e.g., business or person’s name, address, phone number and payee account number if available). When a customer requests a virtual check, the solution provider verifies that the customer has sufficient funds in his account before debiting the check amount from the account balance. The service provider then sends the payee an electronic payment, or, if the payee cannot receive electronic payments, mails a paper check on behalf of the payer to the business or individual. Since the provider verifies that the account has sufficient funds, customers cannot be charged for unexpected overdraft fees or spend more than their account balance.

¹⁹ Electronic Bill Payment and Presentment (EBPP), a process used by companies to collect payments electronically, is a core component of financial institutions' online bank offerings. There are typically two types of EBPPs: biller-direct and bank-aggregator. Biller-direct refers to electronic billing offered directly by the company providing the good or service. Bank-aggregator refers to paying multiple bills electronically through a bank.

### Figure 5. Summary of Mobile Bill Payment Features among Mobile Financial Services Providers

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>FEE</th>
<th>PROCESSING TIME</th>
<th>PAYMENT VALUE &amp; QUANTITY LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEX Bluebird</td>
<td>No charge</td>
<td>No later than second business day after request.</td>
<td>$10,000 monthly max. $5,000 monthly max. for non-registered payee Unlimited number of bills</td>
</tr>
<tr>
<td>Banking Up Upside Card (Online Check Writing Service)</td>
<td>$2 per check</td>
<td>Within 24 hours for payments submitted by 12pm EST</td>
<td>Between $5 and $800 $800 daily max. 4 bills (checks) monthly max.</td>
</tr>
<tr>
<td>BB&amp;T MoneyAccount</td>
<td>Service not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boost Mobile Wallet Plus</td>
<td>$2</td>
<td>2-3 days</td>
<td>$999 max. per bill</td>
</tr>
<tr>
<td></td>
<td>$3</td>
<td>Next day</td>
<td>Unlimited number of bills</td>
</tr>
<tr>
<td></td>
<td>$3 - $5 (depending on biller)</td>
<td>Same day</td>
<td></td>
</tr>
<tr>
<td>Chase Liquid</td>
<td>Service not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GoBank</td>
<td>No charge</td>
<td>Same business day for payments submitted by 3pm PT</td>
<td>$5,000 max. per bill Unlimited number of bills</td>
</tr>
<tr>
<td>Moven</td>
<td>Service not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NetSpend Card (MoneyGram ExpressPayment Service)</td>
<td>Varies</td>
<td>2-3 days</td>
<td>$899.99 max. per bill (not including fee)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Next day</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Same day</td>
<td></td>
</tr>
<tr>
<td>Regions Now Banking Card</td>
<td>Service not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Simple</td>
<td>$0</td>
<td>2-5 days</td>
<td>$5,000 daily max. $15,000 monthly max. Unlimited number of bills</td>
</tr>
</tbody>
</table>

**Person-to-Person (P2P) Transfers**

Several products provide the capability for consumers to send and receive money using their mobile phones. Bluebird customers access their online accounts via the mobile web browser or the product’s mobile app to send money to other Bluebird customers in the U.S using the recipient’s email address or mobile phone number. Similarly, GoBank customers access their online accounts via the mobile web browser or GoBank mobile app to send money to an individual in the U.S. via the recipient’s email.
address or mobile phone number. The recipient of the GoBank funds must either create a GoBank account to retrieve the funds or transfer the money to his PayPal account.

Moven’s “pay a friend” feature enables customers to send money to a person using Facebook, the payee’s email address, or mobile phone number. Using Facebook credentials a customer logs in to his Moven account via the mobile app. The social network and financial transaction data are not linked. Similar to other apps that allow users to login with social network credentials, customers control what information Moven can access from their Facebook profile. Moven customers select who they want to pay from their list of Facebook friends/contacts. If the Facebook payment recipient does not have a Moven account he will be asked to provide his bank account information to Moven. Moven’s processor handles the payment transaction. Facebook is used only as a messaging platform and does not have access to any sensitive account or financial information.

Boost Mobile Wallet Plus uses two services to offer domestic and international mobile P2P services. Wipit Account Transfer is only available to Boost customers, who can send up to $500 within the United States. The Send Money with Ria service leverages Ria Financial Services to process money transfers. Customers can transfer up to $999 to recipients in over 135 countries (including the U.S.) and use the mobile app to check prices, exchange rates, and transfer status. Recipients do not need a Boost Mobile Wallet Plus account and can get the funds at the sender-designated location.

**Mobile Remote Deposit Capture (mRDC)**

According to the Board’s 2012 mobile survey, 20 percent of underbanked consumers used mRDC in the past year. Mobile remote deposit capture is a function that allows consumers to deposit paper checks electronically using the camera on their mobile phone and a downloadable mobile app. Compared to the time and effort required to travel to the bank, ATM, or check cashing agent, mRDC affords much more speed and convenience. Mobile RDC is also an attractive alternative to check cashing services because it can eliminate check cashing fees and increase availability of funds.

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21 GoBank customers can send up to $2,000 per day and $5,000 in any 30 day period.
22 If the Facebook payee is a Moven customer, he will receive an email notification informing him that he has received money. If the recipient does not have a Moven account, he will receive a Facebook message informing him that he has received funds and how to claim the funds. Payee provides the bank routing and account numbers for his bank account to which the money is sent. Payment arrives within 3-5 business days after bank account information is provided.
23 Ria Financial Services is a wholly-owned subsidiary of Euronet Worldwide, an international money transfer company, with a global agent network of 176,000 locations in 135 countries on six continents. For more information, see http://www.riafinancial.com/locations/US/home.aspx.
24 Not all checks are accepted through mRDC, but eligible checks include government, payroll and personal checks.
NetSpend and Moven do not offer mRDC, although Moven plans to add this capability in the near future. BB&T’s MoneyAccount and the Banking Up UPside card offer mRDC using the InGo Money mobile app.25

Some of the concerns that financial service providers have regarding mRDC include check fraud and duplicate posting. While these issues are not exclusive to the underserved, the unbanked are considered higher risk because of the limited information available on their financial transaction history and payment behavior, according to discussions with the solution providers.

The mRDC products vary in terms of the availability of funds, fees charged, and the deposit limits and conditions. Availability of funds varies depending on the type of account, type of check and other associated risks. The holding period on deposited funds could be an issue to customers, particularly if they need immediate access to the funds, which can take five or more business days to post to the account. For instance, GoBank has a 10-day hold period on personal checks deposited via mRDC.

Other products may charge a fee to receive immediate funds. Regions Bank charges Now Banking customers 1 to 3 percent of the check amount deposited (depending on the check type) to receive immediate funds availability.26 Boost Mobile Wallet Plus charges $4.00 per transaction for its mRDC feature, Quick Check, which provides immediate funds availability up to $2,000 for eligible check types.27 For MoneyAccount and UPside card customers, InGo Money offers two options: 1) immediate funds availability for a fee (1% on payroll or government checks and 4% on all other checks); or 2) funds availability within seven days at no charge. These options provide clear fee disclosures and give consumers a choice based on when they need their funds. In contrast, alternative financial services (AFS) and check cashing agents in some states may charge up to 5 percent for a paycheck and 12 percent for a personal check.28 The average check cashing agent charges 2 to 4 percent of the total check amount.29

Figure 6 outlines the mRDC fees, availability of funds, and deposit limits and conditions of the included services.

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25For more information, see http://ingomoney.com/
26 For more information, see http://www.regions.com/virtualDocuments/Now-Banking-Terms.pdf.
27 For more information, see https://boostmobile.wipit.me/services/quick_check.
Figure 6. Summary of mRDC Features among Mobile Financial Services Providers

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>FEE</th>
<th>AVAILABILITY OF FUNDS</th>
<th>DEPOSIT LIMITS &amp; CONDITIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMEX Bluebird</td>
<td>No charge</td>
<td>6 business days</td>
<td>Checks &lt; $2,000 in one calendar day $10,000 in one calendar month</td>
</tr>
<tr>
<td>Banking Up Upside Card (via Ingo Money App)</td>
<td>No charge</td>
<td>7 days</td>
<td>$2,500 per check $5,000 per day $10,000 per month</td>
</tr>
<tr>
<td>BB&amp;T MoneyAccount (via Ingo Money App)</td>
<td>No charge</td>
<td>7 days</td>
<td>$2,500 per check $5,000 per day $10,000 per month</td>
</tr>
<tr>
<td>Boost Mobile Wallet Plus</td>
<td>$4.00</td>
<td>Immediate</td>
<td>$2,000 maximum</td>
</tr>
<tr>
<td>Chase Liquid</td>
<td>No charge</td>
<td>Next business day</td>
<td>$2,000 per day; $5,000 during any 30-day period</td>
</tr>
<tr>
<td>GoBank</td>
<td>No charge</td>
<td>Next business day for government and business checks &lt;$5,000; 10 business days for business checks &gt;$5,000 and all personal checks</td>
<td>Personal checks ≤$2000 Government checks ≤$5,000</td>
</tr>
<tr>
<td>Moven</td>
<td>Service not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NetSpend Card</td>
<td>Service not available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regions Now Banking Card</td>
<td>1% - 3% of check amount per item loaded (5 minimum fee; percentage dependent on check type)</td>
<td>Immediate</td>
<td>None</td>
</tr>
<tr>
<td>Simple</td>
<td>No charge</td>
<td>Up to $200 one business day after deposit processed; Remainder available following business day</td>
<td>$3,000 per check ($2,000 first 30 days); daily maximum $5,000; no more than 5 checks per day No more than 10 checks per week with a total of $25,000, or 15 checks not to exceed $75,000</td>
</tr>
</tbody>
</table>
Mobile Personal Financial Management Tools

Several products provide advanced mobile personal financial management (PFM) tools designed with varying levels of detail, creativity and entertainment features. The tools are intended to help consumers keep track of the funds they have available and better manage their budgets. According to the Board’s 2012 mobile survey data (illustrated in Figure 7), over half of the underserved use a budget for their expenses but only 18 percent of the underbanked and 6 percent of the unbanked use a software program or website to track their household finances. Even fewer underserved consumers use their mobile phones to track purchases and expenses. These factors aside, greater availability of mobile PFM tools and more consumer awareness of available features could potentially increase PFM usage rates.

Figure 7. Underserved Consumers’ Use of Spending Plans and Budgets

![Chart showing frequency of use of spending plans and budgets]

Source: Federal Reserve Board, Survey of Consumers’ Use of Mobile Financial Services, November 2012

NetSpend offers two mobile web PFM tools: 1) Track Spending, and 2) My Budgets. The former tool breaks down a customer’s transaction history into spending categories (e.g., dining, travel) and displays it in a bar graph format. The latter tool helps customers create a budget and match spending to budget goals with useful features, such as Danger! Zone, which indicates if the customer is close to exceeding his budget; and Budget Score Card, which shows if he is meeting his budget. The Budget Score Card feature also recommends next steps for the customer who is already meeting his budget. NetSpend customers can also set up budget-related mobile alerts, which can be changed at any time.
The GoBank mobile app offers several interactive money management tools to its customers. The Budget and Fortune Teller feature helps customers create budgets to better understand their monthly expenses and income. The app compares the customer’s budget estimates to his actual transaction history based on the income and expense information previously input. Customers can also set up mobile alerts related to their budget. The Fortune Teller sends a warning message if a customer tries to spend beyond budget, and will also cross-check the price of an item with a customer’s integrated GoBank budget and send a real-time message to the customer if he cannot afford to purchase it. Using the Slide for Balance option a customer can view account balances without logging in.

Moven’s real-time mobile money management service provides feedback on transactions and tracks spending in real-time to help customers measure their financial health and track their financial behavior. Moven’s mobile app has several tools, MoneyPulse, MoneyPath, and CredScore, which divide a customer’s transactions into three categories: spend, live, and save. MoneyPulse is a speedometer-like tool that compares how fast a customer typically spends his money on a specific day in a given month, relative to the same day in a previous month, and provides details on the customer’s spending behavior. MoneyPath provides a graphic representation of a customer’s spending pattern over time. Customers may link MoneyPath to their Facebook accounts and plot upcoming Facebook events and assess the impact of social events on their spending behavior. CredScore is a reference point that tracks a customer’s financial behavior.

Simple offers two digital financial management tools, Goals and Safe-to-Spend. Goals helps customers save for short- and long-term needs, such as gas, vacation, big purchase or an emergency fund. Safe-to-Spend helps manage the budget by subtracting upcoming expenses, such as bill payments, pending transactions, and savings from the Simple account balance. It then notifies customer of his available balance after accounting for any pending expenses. A customer can create one or more financial Goals by specifying the amount to save and the date when he wants to access the funds. For longer term goals, a customer can authorize Simple’s budgeting tool to automatically deduct a specific amount of money from his Safe-to-Spend reserve daily until his goal is achieved. For shorter-term purchases, a customer can set aside the funds manually. Similarly to the other savings tools, customers can make changes as needed.

Savings

Saving money for emergencies or other financial needs can be challenging, especially for consumers with little disposable income and limited access to mainstream savings accounts. In 2010 the Pew Health Group conducted research showing that having a bank account correlates to saving money. The study surveyed low-income Los Angeles households on what they do when they get paid by check. Seventy-
three percent of banked households reported depositing their paychecks in a bank and saving a portion of their earnings. In contrast, the same proportion (73%) of unbanked households indicated cashing their paychecks at a check cashing agent with no intent to save any of their earnings.\textsuperscript{30} Furthermore, the Board’s 2012 mobile survey found that only 21 percent of the unbanked and 27 percent of the underbanked set aside funds for emergencies that would cover their expenses for three months. (See Figure 8.) These results support the hypothesis that without tools for easy access to savings type accounts it is difficult for the underserved to set aside funds for future needs.

\textbf{Figure 8. Emergency Savings Among the Underserved}

<table>
<thead>
<tr>
<th></th>
<th>Underbanked</th>
<th>Unbanked</th>
</tr>
</thead>
<tbody>
<tr>
<td>\textbf{Yes}</td>
<td>27%</td>
<td>21%</td>
</tr>
<tr>
<td>\textbf{No}</td>
<td>73%</td>
<td>79%</td>
</tr>
</tbody>
</table>

Source: Federal Reserve Board, Survey of Consumers’ Use of Mobile Financial Services, November 2012

Savings tools that are easy to use can help the underserved manage their money. Some of the mobile financial services products examined in this study offer accessible savings features with no minimum deposit or balance requirements, and no interest earned. To use the savings tools, a consumer transfers funds into the savings portion of his prepaid account. To access funds, a customer moves money from the prepaid savings portion into the spending portion of the prepaid account. Payment transactions and cash withdrawals cannot be made from the savings portion of the account. While the extra step may seem inconvenient, it can serve as a deterrent for frequent withdrawals.

Several of the savings features offer flexibility with both automatic and manual savings options. For automatic savings, a customer sets a goal and designates the frequency and amount to be saved. Customers with more uncertain cash flows can save using the manual feature that supports one-time deposits. With either option, consumers can disable the feature as needed.

GoBank’s *Money Vault* is an aspirational savings tool. Money can be moved in real-time to and from the checking account via the savings tool from the GoBank mobile website or app without incurring a fee. To withdraw cash, a customer must transfer money from the *Money Vault* into his GoBank checking account and use his debit card to access the funds.

Bluebird provides a non-interest bearing *Set Aside Funds* savings feature accessible via the Bluebird website, mobile web browser, or mobile app. A customer can make one-time or recurring transfers from his Bluebird account to his *Set Aside* account to save for emergencies or other purposes. There are no set-up or use fees or limits.

Banking Up collaborated with Doorways to Dreams (D2D) to design the *Rainy Day Reserve* (RDR) savings feature on its UPside card, specifically to help consumers save for financial emergencies. The RDR does not require a minimum deposit or balance, and funds can be moved easily from the spending portion of the prepaid card to the savings portion. The UPside card mobile app incorporates the RDR feature to make it more convenient for consumers to save through their mobile phone. To encourage savings for financial emergencies, the RDR displays a pop-up screen with a reminder message when a customer prepares to withdraw funds. The customer then has the option to reconsider his decision and cancel the pending withdrawal. Banking Up also partnered with SaveUp, an organization with a free online rewards program, to incent savings behavior through rewards. A RDR saver can register with SaveUp, link his UPside card, and earn rewards to play games for chances to win prizes on SaveUp’s website.

The *NetSpend National Savings Program* is available to its Premier prepaid cardholders. Customers set savings goals using either the *Savings Targets* tool, which automatically transfers from a prepaid account to a savings account, or the manual *Instant Transfers* tool. A customer tracks progress against his goal, and once the goal is attained he can either move the money into his prepaid account for withdrawal or

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32 For more information, see https://www.saveup.com/.
continue to save. The savings account has no minimum balance requirement and no fees. Customers earn 5% annual percentage yield (APY) on the balance.33

**Prepaid Mobile Top-up**

Some underserved consumers use prepaid or pay-as-you go mobile phone plans, which may be a preferable option for those who are budget-conscious or do not have a steady income. Boost Mobile Wallet Plus, NetSpend and the UPside card allow consumers to add prepaid minutes (top-up) to U.S. and international mobile phones through the mobile web browser and mobile apps. Boost Mobile Wallet’s app has a *Mobile Top-up* feature that enables customers to replenish their Boost mobile phone accounts or top-up from other international and domestic prepaid wireless carriers. Similarly, a NetSpend customer can top-up his own or others’ prepaid phones using the product’s website or mobile app. The replenished amount is subtracted from his NetSpend account balance. UPside card customers can also purchase prepaid mobile airtime for their own or friends’ and family’s phones, using the product’s *Cell Phone Service*.

**V. Building Awareness of Mobile Financial Services**

Each solution provider examined in this study uses different strategies to market and sell its prepaid products. Marketing is done via traditional and digital media channels and in physical and online locations to reach different underserved consumer segments. The three banks, BB&T, Chase and Regions Bank, offer prepaid products to resolve gaps in their traditional services, and therefore, market their prepaid accounts as banking products. However, Regions Bank’s *Now Banking* product expands its banking service to make it comparable to what alternative financial service (AFS) providers offer by including check cashing, bill pay, and money transfer. BB&T also positions its *MoneyAccount* service as an alternative for customers whose applications for a traditional bank account are declined. These products may appeal to consumers who are temporarily unbanked, such as the unemployed, and those who were formerly banked and accustomed to using bank financial services.

The banks pursue marketing efforts across a broad range of channels—television, radio, billboards, in-branch signage and brochures, and digital media (e.g., banks’ websites, search marketing, social media). Additionally, Chase markets its *Liquid* product at local community festivals and grassroots events in both English and Spanish. Ultimately, the goal is to raise awareness of each bank’s brand and product.

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Boost Mobile Wallet Plus markets its product through its retail agents, direct marketing, and online, since many of its website visitors are underserved. Boost Mobile Wallet also uses a hyper-local strategy to leverage authorized agents located in neighborhoods with high concentrations of underserved consumers. In addition to offering convenience, the local agents create a sense of comfort and confidence for consumers by instilling familiarity with the store and clerks who speak their language. Boost Mobile Wallet’s creator and Wipit CEO, Richard Kang, explained the value of this hyper-local strategy. “Greater adoption can be gained if mobile financial services are offered through a clerk-assisted channel. With new products, there are a lot of credibility issues and fear.”

Other providers also market their products through multiple channels and retail locations that are frequented by and familiar to underserved consumers. While Amex advertises its Bluebird card through traditional and digital media channels, it also employs a unique distribution and marketing strategy through its partnership with Walmart, whose customers include many underserved. On average, about 140 million customers shop at Walmart each week, which in many ways reflects the U.S. population, given the vast reach and demographics of the retailer’s core customer base. While Walmart does not report precisely how many of its customers are unbanked and underbanked, it estimates that the percentages that fall into both categories are comparable to FDIC figures. Walmart distributes Amex Bluebird prepaid card kits at more than 4,000 store locations. In addition, Amex set up interactive Bluebird centers at select Walmart stores across the U.S., enabling customers to find more information about the product, test the online experience and mobile app, and ask sales associates questions. These in-store experiences have proved successful in helping Amex directly answer customers’ questions and better understand their financial needs.

NetSpend distributes its prepaid card online, in retail stores and at AFS locations with the goal of providing consumers with convenience, security and control. A key feature of the NetSpend prepaid product is its customer referral and incentive program, which rewards existing customers with a $20 credit for making a referral and rewards the referred customer with a $20 credit when he loads at least $40 on his NetSpend card.

Unlike most other products, Banking Up markets its UPside card exclusively online, using strategies such as search marketing, keyword driven ads, and dedicated publishers of financial products and directories.

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GoBank, Moven and Simple primarily target younger, technology-savvy consumers who tend to be underserved because of their age and lack of credit history, by emphasizing the mobile aspect of their products. GoBank’s Green Dot Bank markets its mobile checking account through venues and channels that appeal to this consumer demographic, such as extreme sports events, college campus bookstores, certain television shows and social media. GoBank’s voluntary monthly fee option distinguishes it from other products and allows customers to choose the fee amount they want to pay, between $0 and $9. According to Green Dot Bank CEO, Lewis Goodwin, “the optional pricing fee was added as a fun factor based on a ‘work-for-tips’ model, which was originally used to sell Radiohead’s “In Rainbows” song via the internet. The audience could download and play the song, and then decide if they wanted to buy the song, and how much they were willing to pay.”

Like GoBank, Moven’s product targets young, digitally-native consumers. Moven markets its mobile financial app to help consumers control their money, spend smarter, and save more, with an emphasis on promoting “financial wellness.” The company’s marketing strategy is primarily digital and focused on public relations, social media (e.g., Facebook), and creating affiliations with trusted influencers (e.g., personal finance bloggers and financial coaches). Because Moven is still in its beta phase, the service is available by invitation only through the company’s website.

During the first year of the product’s launch in 2012, Simple did not have any formal marketing campaigns. Instead consumer awareness was driven by word of mouth via social media. Recently, the company started marketing its products online and through Facebook. Like Moven, Simple is available by invitation only and currently has a wait-list for new customers. The company intentionally limits the number of new accounts to manage growth and as noted earlier does not market directly to the underserved because of the requirement to have a checking account. However, the mobile and PFM features of the Simple account can be of value to the underserved.

VI. Challenges to Consumer Adoption

While mobile options have significant potential to help the underserved access safe, convenient, and affordable mainstream financial services and foster financial inclusion, some key challenges remain. These include administrative barriers, consumer perception issues, and the current regulatory environment.
Administrative barriers include having a tarnished credit and banking history, including being listed on ChexSystems. To appeal to underserved consumers, most of the prepaid products reviewed in this report, including Green Dot Bank which offers the GoBank checking account, do not check credit history or ChexSystems or require a minimum credit score. Green Dot Bank employs the same enrollment process for GoBank as it does for its prepaid cards.

Consumer perception is another major barrier to adoption of mobile financial services for all consumers, whether banked or not. Even though the top 26 U.S. financial institutions currently offer mobile banking services, many consumers, including the underserved, still question the added value of mobile banking or are reluctant to use it due to security concerns. As illustrated in Figure 9, the Board’s 2012 mobile survey found that among the top reasons that underbanked consumers chose not to use mobile banking were: (1) they did not see any additional utility in the service; (2) their mobile phones were not equipped to enable them to use mobile banking; and (3) they had security concerns.

The current regulatory environment presents another challenge to moving the underserved into mainstream financial services due to requirements such as the USA Patriot Act Customer Identification Program (Section 326), which requires financial institutions to verify the identity of every customer who opens a new account. The minimum information required is considerable and includes name, date of birth, residential or business street address and identification (ID) number, such as a social security or taxpayer ID number. Providing an identification number, such as social security, can be challenging to underserved consumers who are undocumented. Alternative forms of ID—such as the Matrícula Consular de Alta Seguridad (MCAS), an identification card issued by the government of Mexico— are accepted as official forms of ID by some, but not all, states, municipalities and businesses. None of the products reviewed accepts alternative forms of ID.

35 ChexSystems is a consumer-reporting agency providing services for financial institutions to help identify applicants with a negative banking history. For more information, see http://chexsystems.com/
Since many mobile financial products for the underserved are built on prepaid platforms this creates other regulatory challenges. Some of the solution providers interviewed believe that financial regulations have not kept pace with advancements in mobile technology, and are hindering innovation in mobile financial services prepaid products.\textsuperscript{37} For example, in order to implement Section 1075 of the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Board of Governors of the Federal Reserve System issued Regulation II. Reg II limits the prepaid features that large banks can offer and still be eligible for the interchange fee cap exemption. To remain eligible, large banks cannot offer online/mobile bill payment or funds transfers from a prepaid account to a savings account—features that could offer utility and convenience for the underserved.\textsuperscript{38}

\textsuperscript{37} In May 2012, the CFPB issued an \textit{Advance Notice of Proposed Rulemaking} on prepaid cards to promote safety and transparency in the emerging prepaid market. Some of the topics evaluated by the CFPB include fees and terms disclosure, unauthorized transactions and product features, such as costs, benefits and consumer protection. A proposed rule has not been published yet.

\textsuperscript{38} The exemption only applies to reloadable general use prepaid cards that are not linked to a checking account, not marketed as a gift card, are generally the sole means of access to the funds and do not charge for overdrafts or the first in-network ATM withdrawal per month.
VII. Key Findings

The unbanked and underbanked population encompasses a diverse group of consumers with high mobile phone adoption rates and varying financial circumstances. Information gleaned from analysis of the products selected for this report indicates that there are multiple mobile financial service solutions that could help foster financial inclusion, but the most effective ones are those that can address a variety of financial needs. The availability of mobile banking features with prepaid accounts can provide the underserved with more convenient ways to conduct transactions, and more importantly, with easier access to account information and better control of their money. Current ambiguity around mobile and prepaid regulations may be disincenting development of optimal mobile/prepaid solutions. However, with clarification and collaboration, mobile financial solutions offer great potential for the underserved to improve their financial health.

1. No ‘one-size-fits-all’ solution exists to meet the financial needs of the underserved

Underserved consumers are very diverse. Both the underbanked and unbanked consumer segments include people with different demographics, characteristics, behaviors, and reasons for not using traditional bank accounts. Some are unbanked because they are young (between ages 18 and 29) and possibly students who will likely open bank accounts as they start their professional careers. Consumers of diverse races and ethnicities may not have bank accounts due to their cultural backgrounds. Some unbanked consumers were previously banked but may now be unbanked because of their current economic situations (e.g., many earn less than $25,000 and are considered low income or are unemployed). On the other hand, the underbanked tend to represent consumers who are slightly older (between ages 30 and 44), belong to a racial or ethnic minority group, have lower incomes (under $40,000), and are working or self-employed. They have bank accounts but also use alternative financial services (AFS), which many perceive to be more transparent, convenient and faster than bank-provided services. And because the underbanked have bank accounts, they may differ in which alternative financial services they use.

Given the disparity between and within the unbanked and underbanked markets, it is difficult to develop one standard solution. Leveraging mobile device technology makes it easier to build flexible products that enable the underserved to select financial services that meet their individual needs and offer the convenience to conduct transactions based on their personal schedule and location. The ideal product needs to be safe and affordable, include all the necessary banking/payment functionalities, and be simple and intuitive to use. More importantly, the optimal solution must be flexible to address the broad range of financial needs of the underserved. For some consumers these existing products
may be sufficient to meet their needs, but for others these mobile/prepaid financial service products can serve as stepping stones that transition them to traditional bank accounts.

2. **Mobile banking services built on prepaid products can meet the financial needs of the underserved**

   Until recently, mobile banking services were only available for customers with traditional bank accounts. Today, multiple prepaid products have emerged that provide typical mobile banking features, such as mobile alerts and account management, bill payment, person-to-person (P2P) payments, mobile remote deposit capture (mRDC), and personal financial management (PFM) tools. Many of these products reduce administrative barriers faced by underserved consumers when trying to access traditional bank accounts, such as requirements for clean credit histories, minimum balances, and overdraft protection. To increase adoption these mobile products and features should be marketed more broadly and effectively as viable alternatives to AFS. Marketing programs need to include educational tools as well.

3. **Mobile technology provides the benefit of real-time, 24X7, access to financial information**

   The products reviewed in this study enable consumers to use their mobile phones to access their account information at any time, from any place. For people who may not have access to personal computers, mobile accessibility helps them to exercise greater control over their finances through alerts, budgeting features, and PFM tools and be incented to find opportunities for savings. Additional research is needed to determine the factors that will motivate the underserved to use mobile technology to access financial services in order to drive changes in current behavior.

4. **Current regulations related to mobile financial services and prepaid pose challenges**

   Solution providers are concerned with regulatory uncertainty related to mobile financial services and prepaid products. Many believe that existing regulations (e.g., Reg II, Reg E) may not be relevant or applicable to emerging financial solutions and are hindering development of products that would help the underserved consumers. Examination of existing regulations and their applicability to mobile financial service providers can increase understanding in the industry and at the policy level, dispel misperceptions and focus collective energies on potential risk vulnerabilities in the mobile channel.39

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VIII. Conclusion

The mobile capabilities offered by the financial products reviewed in this report demonstrate real opportunities to bring the underserved into mainstream financial services. Moving from opportunity to reality will require consumer education to better understand how these products can improve the financial well-being of the consumer and to explain how they work. Greater awareness of product availability and benefits through channels the underserved use most often can help reduce consumer fears and confusion and lead to broader adoption. Solution providers partnering with community-based non-profit organizations that are focused on financial inclusion and financial literacy could build awareness and promote adoption of mobile financial solutions among underserved consumers.

Furthermore, educating the regulatory community on the value of mobile financial solutions for the underserved would help them to create the appropriate rules to promote continued development of safe, innovative products that foster financial inclusion and effectively meet the varied needs of the underserved.