

# Using Broadband to Enhance Financial Inclusion

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## Abstract\*

The progress of financial inclusion in the Latin American and Caribbean region is constrained by the high cost of providing and accessing financial services. On the client side, micro- and small-sized firms, as well as low-income households, face high transaction costs as a result of the challenges of getting to points of service and meeting documentation requirements. On the provider side, the lack of economies of scale for financial service transactions and the difficulty to obtain reliable information on these kinds of clients generate high operational costs. These elevated costs can undermine the profitability of serving these market segments that, in turn, weaken competition. This paper provides basic information relating to the prospects and constraints of using broadband channels and applications to increase financial inclusion in the region. It is a useful resource for policymakers, financial institutions, and the broader development community in the LAC region.

JEL Codes: G1

Keywords: Latin American and Caribbean, broadband channels, financial services, financial inclusion

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# 1. Introduction: The Potential of Broadband Solutions to Enhance Financial Inclusion

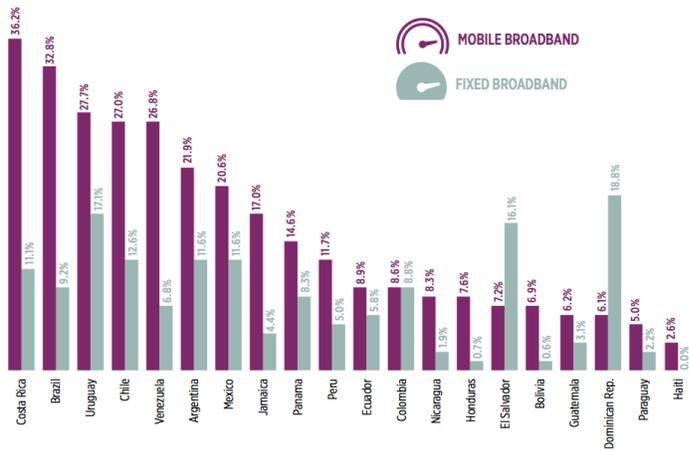
## 1.1. Motivation

The progress of financial inclusion in the Latin American and Caribbean (LAC) region is constrained by the high cost of providing and accessing financial services. On the client side, micro- and small-sized firms, as well as low-income households, face high transaction costs as a result of the challenges of getting to points of service and meeting documentation requirements. On the provider side, the lack of economies of scale for financial service transactions and the difficulty to obtain reliable information on these kinds of clients generate high operational costs. These elevated costs can undermine the profitability of serving these market segments which, in turn, weaken competition.

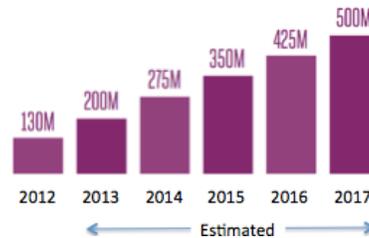
Using broadband applications to deliver financial services can potentially address the above-mentioned cost factors. In most countries in LAC, broadband coverage extends over areas where 90 percent of the population lives and is available around the clock. The falling costs of broadband access and smartphones will give rise to the rapid adoption and use of mobile broadband over the next few years.

At the same time, the foreseeable mass use of broadband data-enabled mobile devices will significantly weaken the control of mobile operators over the services that they offer. The playing field among financial service providers (particularly between those associated with a mobile operator and those that are not) will become more level, opening the doors to new players in the finance sector to enter the market with more innovative services.

**Figure 1a: Mobile and Fixed Broadband Penetration by Country (as percent of population, 2012)**



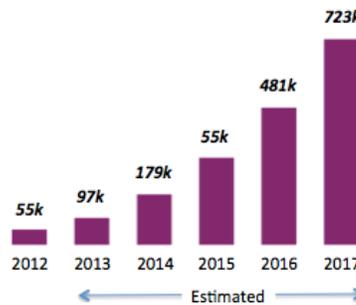
**Figure 1b: Expected Growth in the Number of Mobile Broadband: Connections in Latin America**



**Figure 1c: Recent Evolution in the Average Cost of Mobile Broadband Plans in Latin America (US\$/month)**



**Figure 1d: Mobile Data Traffic in Latin America (Terabytes/month)**



Source: GSMA, *Mobile Economy Latin America 2013*.

The GSMA (Group Special Mobile Association, representing the interests of mobile operators worldwide) estimates that the number of mobile broadband subscriptions in LAC will rise to 500 million by 2017 in a total population of 610 million, compared to 200 million in 2013 (see Figure 1b). Smartphone penetration was close to 20 percent of the population at the end of 2013, marginally below global averages; it is forecast to rise to 44 percent by 2017, which would bring mobile broadband coverage close to the current level of cell phone coverage in the region. Mobile broadband penetration is already far outstripping fixed broadband penetration in most

countries in LAC (see Figure 1a). Combining this growth with the expected increased data usage per subscriber, the total volume of mobile broadband data is expected to rise by 67 percent per annum by 2017 (see Figure 1d). The GSMA also expects monthly mobile broadband data plan fees to continue their downward trend, especially in terms of simpler smartphone plans (see Figure 1c).

Despite the falling cost of smartphones and mobile data plans, penetration within the population will be deterred by the limited coverage of mobile services across the territory. Mobile services are likely to remain unavailable to a significant proportion of the rural population—representing approximately 25 percent of the region’s total population—who live beyond the reach of mobile services.<sup>1</sup> Thus, mobile broadband may not be available in these areas, where the financial inclusion gap is widest.

Increasing universality of broadband access can extend the range of financial services that are digitally provided and strengthen the relationship between the client and financial service provider. As many transactions no longer need to be physically addressed at financial institutions, the related costs to both parties can significantly be reduced. Digital services will also increase access to (i) financial institutions of information relating to their clients in terms of credit evaluations and (2) customers with regard to financial institution alternatives and competing service offers. As a result, financial service providers will be able to drive growth and deliver greater scale, as well as benefit from falling unit costs. They also will be able to develop more specialized services and business models, thus increasing competition and resulting in more profitable markets.<sup>2</sup>

There are numerous web-based financial services in advanced economies that target moderate income households and small businesses, which demonstrate the potential of this modality of delivery to serve those who are currently financially excluded. In LAC, however—while there are only a small number of startup firms in this space—the expected increase in the use of smart phones will help countries progress beyond other countries in other developing regions that rely simply on SMS-based systems to expand access to financial services.

This paper provides basic information relating to the prospects and constraints of using broadband channels and applications to increase financial inclusion in LAC. It is a useful

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<sup>1</sup> For detailed information on the state of mobile coverage in rural areas across the LAC region and the relevant initiatives taking place, see the IDB’s DigiLAC website, <http://kp.iadb.org/digilac/es/Paginas/Iniciativa.aspx>.

<sup>2</sup> The implications relating to the proliferation of smartphones and future scenarios for the development of mobile money can be found in Almazán and Sitbon, 2014.

resource for policymakers, financial institutions, and the broader development community in the LAC region.

## **1.2. Classifying the Potential of Broadband on Financial Service Delivery Models**

Table 1 presents the framework relating to the potential of broadband to transform the nature and delivery of financial services. The first column distinguishes between new broadband-enabled service concepts and the type of innovation they embody:

- Product innovation category: new concepts that offer new service elements to customers or present existing services in a more user-friendly and personalized way. These can be introduced by new players seeking to differentiate or by existing ones who wish to strengthen customer relationships.
- Model innovation category: new business models that challenge the traditional intermediation roles of financial service providers. These new players facilitate financial services by building online marketplaces and transaction management systems without being included in the transaction flow themselves.
- Process innovation category: specialized players who use broadband channels to present and deliver existing financial services more efficiently and extensively than traditional financial institutions by lowering transaction costs and reducing information asymmetries.
- Information category: The bottom row in Table 1 relates to how broadband can assist in the dissemination of financial education content and tools, rather than the financial services themselves.

This paper evaluates how broadband channels can be used to enhance customer experiences and, hence, the focus is at the end-service level. Innovations that address specific infrastructure or service component challenges are not included, such as identity, core banking platforms, or customer care engines. Equally not included are productivity solutions for front-line staff, such as smartphone usage by loan officers or for the streamlined opening of accounts.

Each of the three types of innovation categories described above is further broken down into three specific opportunity areas (see column 2 in Table 1). Ten different opportunity areas, therefore, are considered in this paper. Column 3 lists the key financial services involved in each case. Each of the 10 opportunity areas is described with reference to an illustrative prototypical example, mentioned in column 4, and is further developed as a one-page case

study in the Annex. The range of experiences within the LAC region on a global basis is noted under each opportunity area.

**Table 1: Framework for Broadband Financial Services**

Broad area of impact	Nature of opportunities	Financial services involved	Sample global experience
PRODUCT INNOVATION Deepening customer engagement based on mass customization <i>(Supporting product innovation by existing or new players)</i>	Enhanced functionality and personalization of savings accounts	Goal-based savings, recurring deposits, savings reminders	<u>Wish</u> by ICICI Bank in India
	Working capital loans for businesses that digitize their transactions	Loans automatically repayable from online merchant payments	Grow by <u>Kopo Kopo</u> in Kenya
	Financing based on connections to cloud-based business applications	More flexible business loans (installment, term, line of credit)	<u>Frogtex</u> in Mexico & Colombia
MODEL INNOVATION Digital marketplaces supporting new (dis-) intermediation models <i>(Disruptive model innovation by new players)</i>	Direct peer-to-peer (P2P) lending platforms	Short- to medium-term loans for individuals and small businesses	<u>Cumplo</u> in Chile
	Project-based <u>crowdfunding</u> platforms	Equity, rewards-based financing	<u>Ideame</u> in Argentina
	Platforms for managing savings & loan groups	Savings & loans within closed user groups (ROSCA, ASCA)	<u>Puddle</u> in the United States
PROCESS INNOVATION Specialized online service delivery models <i>(Disruptive process innovation by new streamlined players)</i>	Online international remittance services	International remittances & bill presentment/payment	<u>Regalii</u> in the Dominican Republic-US corridor
	Instant online personal loans	Short-term unsecured consumer loans, payday loans	<u>Lenddo</u> in Philippines, Mexico and Colombia
	Price comparison sites and service aggregators	Information on and channel for all financial services	Money Super Market in the United Kingdom
INFORMATION <i>(Existing or new players)</i> Delivery of financial information and education		All financial services, and beyond	Colombia LISTA by <u>Fundación Capital</u>

The opportunities listed in Table 1 may not all positively impact financial inclusion. For example, instant online loans could have detrimental consequences, given their high interest rates and the history of fraudulent practices by some payday and off-line lenders.

The next four sections of this paper evaluate the 10 opportunity areas, based on the classification in Table 1. In each case, the status of how they operate is provided with examples; a brief scenario is given of similar experiences taking place in LAC and the rest of the world; specific opportunities for financial inclusion are identified, including the potential benefits to clients and/or financial service providers; and specific policy and regulatory issues are raised.

## **2. Strengthening Customer Engagement through Mass Customization**

This section will review the ways in which broadband can enhance the services offered by traditional financial institutions. Firstly, the way in which banks can redesign their basic savings offers by increasing personalization and, therefore, increasing services to customers is considered. Secondly, a synopsis is provided of how customers can add a credit component to the digital payment function. Lastly, cloud-based business applications are reviewed in terms of their leverage to increase benefits for businesses through digital payments and as a source of information for credit risk analysis and decision making.

### **2.1. Enhancing the Functionality and Personalization of Savings Accounts**

#### ***2.1.1. Motivation***

A key challenge for banks and other financial institutions is to increase the frequency and range of their interactions with clients, as well as gain further knowledge about them. This will enable them to make more improved and cost effective credit decisions, cross-sell new services to existing customers to further meet their needs, increase brand loyalty, attract new clients by targeting specific segments of the market, and drive product development.

#### ***2.1.2. Opportunity***

By freeing up client-bank interactions from the confines of traditional banking infrastructures, digital broadband can make banking services available immediately, around the clock, from (almost) anywhere. These services can be accessed very inexpensively by reducing direct transaction costs and by eliminating the expense of transportation to and from bank premises.

Moreover, digital broadband services make it possible for banks to target their services to an individual client or segment and to position new offers in a dynamic and informative way. Conversely, customers can discover and test new services at their own pace and in their own time, providing financial institutions with a much higher level of customer engagement. As argued in the ProSavings report of the Multilateral Investment Fund (IDB, 2013), the financial education gap that has traditionally separated banks from their client base can more easily be bridged if services embody notions, use language that is more familiar to customers, and incorporate easy follow-up mechanisms.

Banks, for many years, have extended banking services via the internet and mobile apps, albeit simply as a new channel. Most internet banking sites and apps are designed to replicate the experience of what would otherwise be a face-to-face interaction at a branch. A

new breed of service providers, however, is developing novel service concepts and user interface designs that more fully exploit the possibilities of digital broadband service delivery. These include the following:

- Offering customers more opportunities to adapt or personalize the service to their own needs and circumstances. This is achieved, for instance, by incentivizing customers to classify their money as user-defined goals rather than accounts with pre-defined characteristics.
- Providing customers with more feedback on their financial behavior and reinforcing their objectives through specific reminders, iconic depictions, visualization of savings goals and balances, and intuitive spending analyses tools.
- Placing people's financial management in the context of their social relationships. By bridging digital financial management tools with online social networking, for example, users can request contributions from their friends toward specific financial goals or use peer pressure devices to build self-discipline.

### **2.1.3. Global experiences**

A number of new stakeholders are experimenting with this sort of enhanced internet/app banking experience. Early innovators in this space were goal-oriented savings startups, such as Smartpig and Goalmine in the United States. These have been followed by newer entrants, such as Simple and Moven (also in the United States) which have created further banking services. These firms control the presentation layer of financial services on the Internet, while their partner banks remain the prime custodian of the savings funds.

In the United States, American Express—in partnership with Walmart—has created a very flexible form of prepaid account, known as Bluebird. It allows users instantly to create any number of goal-based subaccounts (Set Aside accounts), into which they can transfer money on a one-off or recurrent basis (users need to return the money to their main account to be able to access the funds). The prepaid account also allows clients to associate up to five subaccounts for family members (Family accounts) on which the user can exercise various degrees of control over the financial transactions of family members (setting daily spending limits, receiving alerts, issuing debit cards, or turning ATM access on/off).

SaveUp of the United States is a rewards program that operates in partnership with a large number of financial institutions. SaveUp seeks to promote responsible financial decisions among its registered users, who receive points each time they save money or make a

loan/credit card repayment. These points are put toward prizes through raffles that are organized by SaveUp.

Banks now incorporate this type of service into their own internet banking offers, either by licensing the platforms of these early entrants and creating their own service or buying them outright. An early developer of its own system was ING Direct, a subsidiary of ING Bank that was subsequently sold to Capital One of the United States. In contrast, Old Mutual in South Africa bought a one-year-old startup, 22seven, in 2013 while BBVA of Spain purchased US-based Simple in 2014.

Another leading example is ICICI Bank, a private institution in India, which created a goal-based, flexible, and recurring deposit service, known as iWish, in 2012. This is based on the Smartypig platform (see Annex A1) and is marketed as a “wish fulfilling deposit”. Users can define their own goals and flexibly contribute to them without committing to a particular savings frequency. They can optionally set up an automated recurrent payment scheme to fund their iWish account from their checking account with no fees should installments be skipped or contribution amounts from those originally planned. A system for Short Message Service (SMS) reminders is designed to maintain people on their savings track. Goals can be cancelled at any time with a small fee for early cancellation. There are now approximately 2.5 million iWish accounts with a saved balance average of approximately US\$300; many, however, are considered inactive.

In Latin America, a number of specialized innovators are moving into this space to a certain degree, although at present with simple mobile phones. In Mexico, Kiwi is a new firm that assists users to set up their own lay-away plan for purchases at participating stores. Juntos Finanzas operates an SMS savings reminder platform with partners in several LAC countries, designed to reinforce people’s savings behavior and discipline. Juntos Finanzas does not provide its own savings services; it supports savings at partner banks or informal savings by clients.

#### ***2.1.4. Potential for financial inclusion***

Most of these innovative actors currently target a younger and more tech-savvy clientele that is underbanked rather than unbanked—those who already have a banking service but do not find it useful or user-friendly. The potential, however, to meet the requisites of the unbanked is significant, given the increase in access to broadband and familiarity with its applications. Beyond reducing transaction costs, the new service presentation methods can make financial services much more intuitive and relevant to those who are not at all familiar with banking

concepts. In parallel, these sites provide self-discipline and peer pressure tools that can be valuable to poorer people and which resemble the form of money management they apply informally, resulting in higher savings balances and, thus, higher credit ratings for users.

On the other hand, due to insufficient experience with these platforms, many questions remain in terms of their relevance to users at the bottom of the pyramid. It may take a while before less tech-savvy users are willing to accept these options; it also may be harder for them to intuitively operate the systems, therefore contributing to their inherent distrust of technology oriented solutions. It is not clear how effective SMS reminders, for instance, will be in the long term in motivating savings for those who expect them, especially when they increase in frequency because of an increasingly broader range of service providers. The effectiveness of socially sharing goals online is also not yet evident.

This type of online banking service is not prone to regulatory issues, as long as regulated direct deposit institutions or firms that are in partnership with them provide it. Banking authorities may consider opening up this online activity to specialized players who hold an appropriate e-money license, only allowing them to manage customer savings balances while, at the same time, preventing them from being an intermediary for their funds.

## **2.2. Payment Systems and Working Capital Loans for Businesses that Digitize Transactions**

### **2.2.1. Motivation**

The share of goods and services that are paid for electronically is likely to grow markedly as a result of several related factors:

- New technology-enabled models for financial inclusion are influencing the decrease in the cost to issue digital payment instruments to a mass market. This applies to those financial institutions that are card based (primarily in Latin America) or mobile based (such as M-Pesa in Kenya or Tigo Money in El Salvador, Guatemala, Honduras, and Paraguay). Under the latter, the sender typically pays cash in and the recipient retrieves the cash at a local participating store (agent). Tigo Money operates as a cash-to-cash money transfer system, where the payer provides cash to the agent to fund the transfer and a unique code (technically, a one-time password) is sent automatically to the payee's phone by way of an SMS message. The payee can then claim the cash from the agent on presentation of the unique code. While Tigo Money does not operate on the basis of a customer account, M-Pesa transfers flows between the payer and payee

accounts. The sender must first deposit the money into his/her account at the agent and then issue a money transfer instruction from a mobile phone; the recipient can either keep the money in his/her account, transfer it to someone else, or go to an agent to withdraw it.

- The spread of smartphones and the emergence of simple card readers that can be attached to the audio jack of smartphones (originally conceived by Square in the United States) have spawned the development of low-cost electronic payment systems for small shops that wish to receive card-based payments from their clients. The built-in camera on smartphones can also be used as an automated payment input device. In this regard, a smartphone app by Mitek (United States) automatically extracts relevant data from a bill that has been photographed. It automatically fills in the fields required to make a mobile payment. In Mexico, startups Clip, PagoFácil, and Sr. Pago are assisting small businesses to receive electronic payments through a low-cost mobile point-of-sale system that includes a square-like card reader; mobile apps for managing payments they receive; and a prepaid debit card that provides merchants with instant access to funds that have been transferred for payment.
- A number of low-cost, cloud-based solutions are emerging that are designed to help small businesses and traders keep track of their operations. These are creating an incentive for businesses to capture their transaction information electronically at source (i.e., at the point of payment). For instance, Frogtek in Mexico (see Annex A3.) is a smartphone app that keeps track of the inventory levels at stores and which offers checkout services at the point of sale.
- The growth of e-commerce platforms directly feeds into the demand for online payment solutions by third parties, such as Pay Pal (United States).

### **2.2.2. Opportunity**

As transactions are recorded digitally via smartphones at the point of sale—whether as a store check-out or customer bill payment—the valuable information that is accumulated can be harnessed by financial service providers to offer working capital loans to those businesses. By gaining visibility of detailed, real-time sales data, credit providers can offer terms that would not be feasible otherwise. This data also can be enhanced by collecting information about merchants from their social media profiles and online accounting software.

Furthermore, by inserting the financial services providers into the merchant payment flow, loans can be repaid automatically from future card/electronic payment receipts processed

from the merchant. This aligns the interest of merchant and credit provider around business growth. The automatic repayment rate cannot be too high, however; otherwise the merchant would be disincentivized from collecting payment from its customers electronically (triggering automatic loan repayment) rather than by cash.

### **2.2.3. Global experiences**

Online merchant acquirers (specialized companies that help retailers accept and process electronic payments from customers) that are adding credit support to their range of merchant solutions are aggressively developing the opportunity discussed above. Capital Access Network (CAN Capital) of the United States pioneered the notion of merchant cash advances and it is now the leader. PayPal began its lending facility for small and medium enterprises (SME), Working Capital, in the United States in September 2013, followed by the United Kingdom in July 2014. Square launched its lending program, Capital, in the United States in May 2014.

This experience is now spreading to emerging markets where digital—and especially mobile—payments are making deep inroads. Kopo Kopo, the leading M-Pesa merchant acquirer in Kenya, launched Grow (see Annex A2) in May 2014 and, within four months, provided merchant cash advances to approximately 500 stores. Retailers that have received merchant payments through Kopo Kopo for at least three months are eligible to apply for loans up to a value of US\$60,000. Loans are repaid automatically, based on an agreed share of daily electronic merchant payment receipts that are automatically set aside by Kopo Kopo in order to repay the loan. Loans are unsecured beyond this automatic repayment rate.

While the mobile payments supported by M-Pesa run on simple mobile phones with SMS capability, merchants are able to apply for more advanced online functionality and for instant credit approval. Kopo Kopo considers Grow as a key service to motivate their merchants to migrate from simple mobile phones to smartphones that offer more functionality and a faster and more convenient merchant experience. In the LAC region, BancoEstado in Chile is testing this type of working capital support loan for merchants.

### **2.2.4. Market size**

According to one estimate, the value of merchant cash advances to small businesses in the United States was \$3 billion in 2013 (Murray et al, 2013).<sup>3</sup> This includes purchases of future credit card sales, online lenders that provide revenue-secured loans (e.g., Kabbage and OnDeck—discussed below), and other lending mechanisms to businesses whose repayment is

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<sup>3</sup> While it is not specified in the report, the estimate can be interpreted to represent only the United States.

based on the daily capture of funds. Only three online lenders (CAN, Kabbage, and OnDeck) account for half of this volume, although not all of it fits the description of daily capture of funds.

### ***2.2.5. Potential for financial inclusion***

These types of digital credit solutions, based on digitized transactions, are efficient relative to standard SME working capital sources for two reasons. First, they reduce the information asymmetry between the merchant and the credit provider, thereby making credit risk more assessable and able to be monitored. Second, by directly linking customer merchant payments with credit repayments, the transaction costs of servicing the loans are dropped and the credit can be offered on an automatic rollover basis, thus reducing transaction costs for all parties.

Moreover, such credit solutions can be a valuable component of digital financial inclusion programs in developing countries, since they address one of the most challenging issues relating to the design of a digital payment ecosystem: convincing retail stores to accept merchant discounts. The possibility of accessing instant working capital loans is a strong incentive for retail stores to promote digital payment plans with their customers. The ability to make digital payments at everyday stores will enhance the value of banking for the general public. In so doing, it can be a strong force toward business formalization by way of providing incentives for business owners to report their business activities and transaction flows more accurately.

### ***2.2.6. Regulatory issues***

Merchant credit offered on this basis is effectively collateralized by future (electronically received) revenues. Regulators, however, often treat them as uncollateralized loans, since there is no constituted collateral at the time the credit is extended. As a result, the mandated risk rating and provisioning requirements are set at higher levels than might otherwise be the case, which makes this form of credit more expensive.

## **2.3. Financing Based on Connections to Cloud-Based Business Applications**

### ***2.3.1. Motivation***

Access to broadband presents an especially significant opportunity for small businesses to harness financial information linked to a variety of business contracts, processes, and workflows. Broadband, together with the proliferation of mobile devices, allows for the capture, process, analysis, and deployment of much more information in value-enhancing ways. This

promotes a stronger sense of business control and faster business reaction to market conditions or events.

Furthermore, the growing trend to provide access to software as a service rather than as a physical company-specific installation has enormously reduced technology adoption costs. Small businesses are now able to access shared services that previously were only available through larger industrial groups. Businesses can now avail themselves of the latest software services without the need for business-specific information technology support staff.

Cloud-based services are generally designed to upgrade easily as business needs grow and evolve and, hence, they are more flexible than traditional shrinkwrapped software. Solutions are available through a browser "anywhere, anytime", facilitating collaboration among business partners and employees and improving the support of people who work remotely or in the field. They can also be implemented through an app downloaded on the user devices, which offers a faster, more convenient experience to users.

### ***2.3.1. Opportunity***

In general, digitizing business information allows stakeholders to maintain relevant information on structured databases that, in turn, allows providers to offer firms more services in a less risky way. Nevertheless, the resistance to the digitization of business information remains high, given the frequent need to change business practices, incur new fees in terms of service providers, and potentially expose more information to tax authorities. Providers, therefore, should ensure that they are able to make the value of information more relevant to businesses, so as to incentivize the gathering of information.

### ***2.3.2. Global experiences***

There are now many cloud-based services that allow organizations to structure and access information that is linked to their transactions for a variety of purposes. Such examples are US-based Intuit's general database management software and its QuickBase accounting software; and QuickBooks, which can be used to manage database access permissions and automate notifications, perform standard analytics, and link databases to business apps in a number of categories. Another leading example is the customer resource management solution, US-based Salesforce.com, which assists businesses to maintain a full lifecycle view of their customers, from prospects through to sales and service. There are also more specific solutions, such as the time tracking software, OfficeTime (United States), that helps contractors keep track of billable

time and generate invoices and the Maana Mobile (United States) loan management system that automatically reports payments to update borrower and lender records.

Some applications particularly focus on retailers in emerging markets that are likely to become transaction acquirers for the new breed of mass-market digital/mobile payments. For instance, FrogTek offers store check-in/check-out services based on a tablet and a barcode scanner (see Annex A3). This system provides retailers (and, potentially, their distributors) with detailed reporting on inventory, sales, and profitability by way of their smartphone.

Kabbage, in the United States, is a service that offers a line of credit to SMEs that are willing to share with them the data from these types of online business support applications, as well as other online relationships (e.g., bank or PayPal account). By using real-life business data from these sources, Kabbage is able to approve funding in minutes for businesses that may not have an established credit score or that may not have a significant digital merchant payment stream. Kabbage, therefore, goes beyond the merchant cash advance system that was discussed previously.

### **2.3.3. Market size**

(See the corresponding entry in Section 2.2.4.)

### **2.3.4. Potential for financial inclusion**

These types of business control services can play a significant role in financial inclusion by reinforcing the value of formalizing and digitizing the financial management processes of businesses. The direct benefits that are beyond the sheer payment function can make these services more attractive for businesses to consider whether the risk of disruption involved in switching from traditional financial services is worth it. These benefits can also reduce concerns regarding higher direct fees and exposure to tax authorities that are often perceived to come with traditional financing methods. Digital transaction recording solutions can be particularly effective in supporting financial inclusion if they are directed specifically to the business case for cash-in/cash-out agents. They can (i) drive a store loyalty scheme to motivate the frequent customer use of cash-in/cash-out services or digital payment for goods; (ii) propel mobile advertising campaigns (e.g., via SMS) that can be either localized (broadcast to all mobile users within a cell) or targeted (e.g., to previous customers who have paid by way of their mobile phone); and (iii) facilitate the expansion of businesses toward digital purchasing under electronic voucher systems.

### **2.3.5. Regulatory issues**

The main regulatory issues that arise relate to the legal standing of electronic documents and signatures in contracts and legal procedures, as well as the privacy of business information gleaned from borrowers. In addition, it may be justified to classify these types of loans under a lower risk weighting, to the extent that having greater visibility of the borrower's business transactions on an ongoing basis allows for closer monitoring by the borrower.

## **3. Digital Marketplaces Supporting New (Dis-)Intermediation Models**

Increased access to broadband has the potential to enable significantly more meaningful and direct interaction between end-users and a host of market participants, thereby eroding the importance of traditional financial institutions—potentially circumventing them altogether. The following set of global experiences further challenges traditional methods of financing, since broadband channels are used to build trust and achieve more decentralized relationships between transacting parties. These vehicles overthrow the notion of the financial intermediary (which transacts separately with the borrower and the provider of funds, such as depositors). Rather, they enable the parties to agree to the terms, allowing each party to conduct the transaction independently through an intermediary that puts them into contact with each other.

The following is a review of three online applications. These include online marketplaces for individual loans and for syndicated project funding; and online tools that can bolster the trust in and access to traditional lending circles or savings groups.

### **3.1. Direct Peer-to-Peer Lending Platforms**

#### **3.1.1. Motivation**

Formal financial services tend to be based on specialized entities that intermediate the trust between debtors and creditors. These intermediating agencies have a certain comparative advantage in absorbing credit risk because they can (i) impose specific selection, screening, and monitoring mechanisms on borrowers; (ii) pool risks across many borrowers who face idiosyncratic (i.e., uncorrelated or non-market) risks; (iii) invest in appropriate hedging strategies to handle market risks; and (iv) invest the necessary resources in legal enforcement mechanisms to maintain the validity of their claims.

This intermediation, however, comes at a price—either in the form of high administrative fees or a wide margin between lending and borrowing rates. It also leaves the intermediating

agencies with the residual credit risk of savers (unless there is a government-sponsored deposit insurance scheme), which is hard to assess by creditors due to the financial status of intermediaries not being transparent. At the same time, traditional intermediation leaves savers with no control over how their resources are redeployed (i.e., who is funded), which may be hard to accept by more socially-conscious investors.

### **3.1.2. Opportunity**

In finance—as in many other sectors—the Internet is powering new business models of a much more decentralized nature that promise unprecedented levels of customer choice with much reduced transaction costs. A new class of peer-to-peer (P2P) lending sites is emerging, more akin to a “financial eBay” than to a traditional bank. P2P sites are marketplaces that enable prospective borrowers to post their financial requirements online, thereby attracting lenders who are willing to fund them directly.

Online P2P loans are mostly unsecured personal loans between people who do not know each other, although there are now versions that cater to business lending or more specialized needs, such as student loans, invoice factoring, or real estate loans. P2P websites generally contain a description of a large number of borrowers and the intended purpose of the loan. Prospective lenders can go to the website and choose whom among them they wish to fund. Some sites have a voting mechanism through which borrowers can build up a public score, and a few of them link to social networks as a further trust-building mechanism. Loans can be resold to other lenders on the same site, although liquidity tends to be very low.

P2P sites usually perform borrower verifications (such as identity, bank account, employment, and income) and credit checks. They process payments between borrowers and lenders and may also take action to collect payments from delinquent borrowers; they do not, however, intermediate the loans themselves and, hence, carry none of the credit risk. Lenders who compete for the lowest rate on a reverse auction basis usually set interest rates. In some cases, however, P2P sites include credit models for loan approvals and pricing.

### **3.1.3. Global experiences**

The leading countries—in terms of the development of P2P platforms—remain the United Kingdom and United States, the former of where this model originated. The first P2P site was Zopa, launched in 2005, which was followed by Prosper a year later. The model has now spread across many countries, including China (CreditEase and SinoLending), France (Prêt d'Union), Germany (Auxmoney), and Spain (Comunitae).

Cumplo of Chile was launched in May 2012 as the first person-to-person lending site in Latin America, and is now focused on enabling P2P loans to SMEs (see Annex A4). The growth in SME loans has been spurred by the fact that they can tap into a government loan guarantee scheme for eligible SMEs. A smaller proportion of posted enterprise loans are backed by the enterprise's invoices for collection and, therefore, they are akin to factoring. As of early September 2014, Cumplo had over US\$32 million in outstanding 700 loans. Other examples of P2P lending platforms in Latin America are Afluente in Argentina and Prestadero and Kubo.financiero in Mexico.

### **3.1.4. Market size**

The leading platform in the United States, Lending Club, has facilitated more than US\$5 billion in loans to almost 300,000 individuals since its inception in 2007 to end-June 2014. Of this amount, US\$1 billion was in the second quarter of 2014 alone, demonstrating a phenomenal growth rate of almost 100 percent year-on-year.<sup>4</sup> During the month of September 2014, US-based Prosper facilitated US\$136 million in loans, an increase of 421 percent over the same month a year earlier. In the same month, UK-based Funding Circle and Zopa, two market leaders, facilitated a combined US\$66 million in loans, an increase of 90 percent.<sup>5</sup> In the United Kingdom, peer-to-peer lenders have collectively loaned almost US\$1 billion in 2013, of which half was loaned to individuals and half to small businesses; of the US\$500 million that has been channeled to businesses, two thirds comprised direct loans and one third took the form of invoice trading (Collins, Swart, and Zhang, 2013).

New loans, worldwide, that have been processed through P2P sites in the month of July 2014 are estimated to have amounted to approximately US\$250 million.<sup>6</sup> An investor in this space expects that US\$1 trillion dollars in loans will originate through P2P platforms on a global basis, accounting for 10 percent of all consumer and SME lending (Moldow, undated).

### **3.1.5. Potential for financial inclusion**

Most informal financial practices contain an element of trust among peers, either on a personal basis (e.g., when money is transferred to a moneyguard or loaned out to a friend) or through a group solidarity process (i.e., rotating savings schemes and self-help groups). Online P2P lending platforms, therefore, may be culturally and practically closer to what people are familiar

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<sup>4</sup> See the Lending Club website at <https://www.lendingclub.com/>.

<sup>5</sup> See P2P-Banking.com (post dated October 1, 2014, by wiseclerk), available at <http://www.p2p-banking.com/countries/germany-international-p2p-lending-services-loan-volumes-september-2014/>.

<sup>6</sup> See [P2P-Banking.com](http://www.p2p-banking.com).

with, since they preserve greater personal discretion over the destination of the funds and incorporate a social element. P2P sites could be a useful way to induce greater formalization of lender/borrower relationships, without implying a large transfer of responsibility to physically and culturally distant financial institutions.

### **3.1.6. Regulatory issues**

The main regulatory issues surrounding P2P lending concern (i) the legality of soliciting investments from the general public, and (ii) the reporting requirements of marketplace players. These are concerns that, if unchecked, P2P lending platforms can lead to over-indebtedness as individuals gain such easy and direct access to borrowing.

There are questions as to whether individual loans sold online constitute securities and, hence, whether they are subject to registration and fuller documentation.<sup>7</sup> Due to their short history, it is not clear how P2P lending will perform in a sudden downturn, and there have already been a few isolated cases of a platform closure.<sup>8</sup> There could also be many potential consumer protection pitfalls associated with unscrupulous P2P platforms misleading lenders on their terms, as well as unscrupulous borrowers misrepresenting themselves. We can expect, therefore, that future P2P platforms will be increasingly regulated by financial authorities and will require special licensing.

In March 2014, the United Kingdom passed the most comprehensive regulatory framework concerning P2P lending platforms. The Financial Conduct Authority (FCA) imposed a minimum capital requirement on platforms, based on their volume of loans outstanding and starting at 0.2 percent for the first £50 million pounds in lending, with a declining rate for larger volumes. The FCA now requires that platforms refrain from commingling client funds and that they perform appropriate reconciliations. The FCA has extended certain consumer protection obligations on these platforms, such as the requirement to provide cancellation rights to investors under certain conditions and within certain timeframes; provide adequate disclosures; and institute appropriate complaints and dispute resolution processes. Platforms are required to ensure that they have a robust back-up plan in place to service the loans in the event they go out of business or otherwise cease to operate. The FCA has also imposed regular reporting requirements, such as the disclosure of the prudential and financial position of the platforms;

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<sup>7</sup> In July 2013, Prosper paid US\$10 million to settle a claim that it had sold unregistered securities (see [P2P-Banking.com](http://P2P-Banking.com)).

<sup>8</sup> One example was Quakle in the United Kingdom in 2011, which experienced exceedingly high default rates. P2P sites need to be designed very carefully so that they do not attract an undue proportion of high-risk borrowers for whom this is their only option.

notification of a change in total value of loans outstanding of 25 percent or more; client money positions; investor complaints; and loans arranged over the previous quarter (FCA, 2013).

In contrast, P2P platforms in the United States “(...) fall between the cracks for federal regulators.” Because they are not banking entities, the traditional regulators—particularly the Federal Deposit Insurance Corporation, the Federal Reserve and the Office of the Comptroller of the Currency (OCC)—have been less involved”(Mills and McCarthy, 2014). The Securities and Exchange Commission determined, in 2008, that loans traded on P2P platforms are, indeed, securities and that the platforms that promote them should be regarded as brokers or dealers with specific rules attached to them. Accordingly, P2P platforms must register their offerings as securities with the Securities and Exchange Commission, as well as in every state in which the securities are offered for sale to the public. The United States, however, has not passed a unified regulatory framework for consumer protection around P2P platforms, so the rules are fragmented between various agencies at the federal and state levels.

No LAC country in has yet established a regulatory framework for P2P lending, and relevant authorities in many countries, such as Chile, are permitting such platforms to develop undisturbed (see bottom of Annex A4). To avoid the kind of legal vacuum in which Cumplo is operating, Kubo.financiero in Mexico has already taken the step to obtain a Sociedad Financiera Popular license.

## **3.2. Equity Crowdfunding Platforms**

### **3.2.1. Motivation**

Crowdfunding sites are online marketplaces that facilitate the pooling of money from a diverse collection of investors to fund specific business projects, including startups which do not have access from other sources (e.g., venture capital funds) or which want to maintain greater independence. Funds can be raised as pure donations (based on affinity with purpose with some level of recognition) in exchange for rewards (e.g., access to early version of the product or price discounts) against equity or as lending. The concept of crowdfunding, therefore, is a generalization of the direct funding solicitation concept, pioneered by P2P lending platforms.

### **3.2.2. Opportunity**

Equity crowdfunding platforms offer the means to smaller investors to take direct equity positions in companies and to provide smaller and newer firms with additional and usually lower-cost sources of financing. Their equity investments are protected by the statutory

provisions afforded to ordinary shareholders by the funded companies, although as private equity funding they enjoy much less protection than publicly traded shares. Some platforms offer additional protection to investors in the form of subscription agreements with the funded companies. These contain protections, such as consent and pre-emption rights on the issue of new securities and tag-along rights in the event of the sale of shares by a major shareholder.

As with P2P lending sites, equity crowdfunding sites handle the payments involved, but are not involved in the transaction itself. Each site has rules as to the conditions under which the money pledged by investors must be paid up: some sites collect investor funds only if a minimum amount—pre-specified by the investee—has been pledged within a defined fund-raising period, whereas other sites collect all pledged amounts from investors and leave it up to the investee to determine whether the amount raised is sufficient to complete the project or whether the pledged funds should be returned to the investors. Because crowdfunding tends to cater more specifically to entrepreneurs and innovators, the platforms may also provide services such as media hosting, social networking, and facilitating contact with contributors.

### **3.2.3. *Global experiences***

The earliest crowdfunding sites were donor and reward-based. The first online crowdfunding platform was ArtistShare, launched in 2003 in the United States. Since then, most have been commercially oriented in that country (including KickStarter, Indiegogo, Profunder, and Microventures) as elsewhere (e.g., FundRazr in Canada, DemoHour in China, Fundedbyme in several Europe countries, Headstart in Israel, Sellaband in Germany, and Goteo in Spain). Some crowdfunding sites have a social and charitable purpose (e.g., Handup is a site specifically to help homeless people in the United States).

Equity-based crowdfunding platforms—understood to be the sale of registered securities by a majority of early-stage firms to investors—started in the United States in 2010 with RockThePost (subsequently merged into Onevest). Currently, the largest platform is AngelList, which supports equity and debt investments for startups; however, it only accepts accredited investors. Other leading US-based equity crowdfunding platforms are EarlyShares, Fundable, CircleUp, and Crowdfunder. The two leading UK-based equity crowdfunding platforms employ different investment mechanisms: while Crowdcube allows individual investors to acquire shares directly in startup companies, Seedrs pools the funds to invest in new businesses as a nominated agent.

Mirroring the international experience, the majority of emerging crowdfunding platforms in LAC is grant-/reward-based, and many focus on creative or artistic projects. An example is

ideame, launched in Argentina in 2011, which acquired the Movere crowdfunding service in Brazil in 2012. It has now spread to four other Latin American countries (see Annex A5). Other examples include Catarse, the market leader in Brazil, and Fondeadora in Mexico;

A number of equity-based crowdfunding platforms, however, are also emerging. US-based Crowdfunder established a Mexican subsidiary platform in December 2012. Broota was founded in Chile in 2013, but remains small; it claims to have transacted US\$200,000 in financing from 68 investors. Beyond financing, its aspiration is to become a social network for entrepreneurs. Vakita Capital was founded in Mexico in April 2013, but has not yet started operations (VenturaMexico, 2014).

#### **3.2.4. Market size**

The volume of equity crowdfunding on a global basis was estimated at US\$116 million in 2012; this represents a small fraction of the US\$2.7 billion that was raised through crowdfunding worldwide (Massolution, 2013).<sup>9</sup> It is estimated that in the United Kingdom alone in 2013, the volume of equity deals transacted through crowdfunding platforms amounted to US\$45 million and a further US\$2 million was in revenue or profit-sharing deals (Collins, Swart, and Zhang, 2013).

#### **3.2.5. Potential for financial inclusion**

As with P2P lending, crowdfunding could become an effective funding mechanism for startups and small companies in emerging markets, since it provides the potential for them to expand their access to finance at more favorable terms as compared to their financial intermediaries. In addition, it can exploit the more collaborative, community-oriented practices that are prevalent in the informal economy. Crowdfunding platforms can also be a powerful channel for socially minded investors to contribute to social- and development-oriented projects. In particular, they could become a particularly useful mechanism for diaspora communities to invest in a diversified set of projects in their home country.

#### **3.2.6. Regulatory issues**

Many governments recognize the value of crowdfunding as a mechanism to fund entrepreneurship and innovation, but they are concerned about the overt public investment solicitation it represents. A key concern is whether investors understand the risks that are

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<sup>9</sup> There is no regional breakdown of the equity crowdfunding total. But if one looks at the total crowdfunding volume in the report, 60 took place in the United States and 35 percent in Europe, while only an insignificant US\$0.8 million of this amount was raised in Latin America.

involved in funding startups, which have a notoriously high failure rate. Regulators, therefore, are grappling primarily on what restrictions should be placed on nonaccredited investors, who seek to invest through public crowdfunding platforms, and the disclosure and transparency rules that should apply to the platform itself.

The United States, in 2012, took the lead to promote crowdfunding through the passage of the Jumpstart Our Business Startups Act, which introduced requirements on all involved players. Crowdfunding sites now must be registered with the Securities and Exchange Commission. On the investor side, only accredited investors (i.e., individuals with a net worth exceeding \$1 million, excluding their primary home or earning more than \$250,000 per annum) can invest through equity crowdfunding. They are only permitted to invest a certain amount each year (i.e., lower than US\$100,000 or 5 percent of assets). On the investee side, there is a cap on how much each investee can raise each year (i.e., up to US\$1 million dollars), and their financial statements must be reviewed or audited independently if they have raised more than US\$100,000.

In Europe, Italy became the first country to regulate equity-based crowdfunding, when the Italian financial securities regulator, Commissione Nazionale per le Società e la Borsa, issued two rules in July 2013. Only companies that are specifically designated as “innovative startups” by the Chamber of Commerce can solicit equity through crowdfunding platforms. The maximum amount that a startup can raise is set at €5 million. Such startups are required to (i) have a professional investor, a bank foundation, a financial corporation, or an incubator that subscribes at least 5 percent of the capital offered; and (ii) insert a clause in their statutes which guarantees to crowdfunding investors the right to sell their shares in case the major shareholder sells its stake to a third party. The Commission did not limit who can invest through crowdfunding platforms, beyond the requirement that they take a test to demonstrate that they are aware of the risks they are taking when investing, and that they can afford the possible loss of the amount invested. The Commission also imposed some fit and proper restrictions on promoters of equity crowdfunding platforms, placing on them certain information transparency obligations (Tordera, 2013).

As with Italy, France does not impose restrictions on investors on crowdfunding platforms. The UK regulator, however, is taking a tougher line. In March 2014, the FCA required

that inexperienced investors in equity schemes must certify that they will not invest more than 10 percent of their portfolio in unlisted businesses.<sup>10</sup>

### **3.3. Platforms for Managing Savings and Loan Groups**

#### **3.3.1. Motivation**

Informal financial solutions tend to have a strong social dimension. It is very common to find basic rotating savings and loan schemes (generically referred to as ROSCAs) into which members contribute a fixed amount at each regular meeting, taking turns to withdraw the sum collected at each meeting. There are more flexible schemes (generically known as accelerating savings and loan schemes, or ASCAs) under which members can apply for loans at a meeting, to be repaid in fixed installments at subsequent meetings; any excess of funds raised over borrowings outstanding is saved in a communal pot that usually takes the form of a lockbox or a bank account. Sometimes, savings groups will have ad hoc meetings for a particular fundraising purpose (e.g., to pay for a wedding, hospital bill, or funeral of someone in the community); these groups dissolve once the target amount has been raised.

These informal grassroots financial solutions rely heavily on trust between members, presenting several limitations. These groups tend to be geographically constrained, since the mechanics of trust building and monitoring require that people meet physically on a regular basis and monitor each other between meetings. Furthermore, the services are not portable when a member migrates to a different village, since the groups at the new location will be entirely unaware of the member's history with the groups at the point of origin. If trust is broken—which is often the case—it is wrenching and it takes a long time to rebuild the trust.

#### **3.3.2. Opportunities**

There are two approaches to leverage broadband solutions to support savings and loan groups without changing the core proposition of direct (unintermediated) trust between group members. One approach is to incorporate broadband solutions into the basic mechanics of traditional groups in a way that will help to mitigate some of the limitations—mentioned earlier—without displacing physical group meetings. These solutions tend to focus on maintaining established accounting procedures and managing the group's information in a transparent manner. Under the second approach, smartphone-based apps can be used to organize virtual groups that need

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<sup>10</sup> Specifically, "any person can invest, but must keep each of their first two investments under 10% of their net assets (money that does not affect their house, pension, or life insurance). After this, the investor can choose to self-certify as a sophisticated investor and put up as much money as they desire" (Dawson, 2014).

not come together physically. The service, therefore, replicates rather than complements the experience of physical group meetings. The app can contain tools to invite group members, solicit (electronic) contributions from members, handle loan requests by individual members, and push regular information back to all members.

### **3.3.3. Global experiences**

Kenya-based eRecording is an Android app that freely downloads from Google Play. It contains all the necessary accounting tools to maintain proper monitoring of savings and credit groups. It can be used at physical group meetings to record all transactions, and a summary can be automatically sent to each member of the group by SMS into their personal phone. E-kulki of Colombia is in the process of developing a similar application.

Mission Asset Fund of the United States reports the savings and borrowing activity of members of its groups to credit bureaus, so that group members can begin to nurture a credit rating through their informal financial activities. By enhancing transparency and making more information available to all members at any time, it may be less tempting for the group leader/treasurer to exploit or manipulate the accounts. Trust can become stronger and build up faster than otherwise.

Tutanda of Mexico is a web-based platform that sets up and manages ROSCAs (*tandas* in Spanish). This also applies to eMoneyPool and Yattos in the United States.

Puddle of the United States (see Annex A6) is a web-based platform to set up and manage lending circles or accelerate savings and loans schemes. It offers more flexibility on the timing and amounts that members can borrow against group contributions. The group, in fact, does not approve individual borrowings,; rather, they are extended automatically by Puddle as long as the group has positive net funds (i.e., contributions larger than borrowings outstanding). In addition to the group management and accounting tools, it allows people to locate groups they may wish to join, or meet other people with whom they might form a new group.

This sort of tool is likely to be particularly useful for short-term, specific-purpose groups that are formed around particular events (e.g., wedding, local festivity, or hospitalization of a community member). Kenya's Safaricom has built a tool, "Change na M-Pesa", which is essentially a temporary bill pay number that allows money to be easily collected. M-Changa, a startup in Kenya, has designed a dedicated app—also available through Google Play—that has more sophisticated tools to communicate with group members.

### **3.3.4. Potential for financial inclusion**

These solutions can be a powerful component for financial inclusion strategies, since they tap more directly into the psyche and the current practices of most people in the informal sector. They also complement the formal financial service sector and, more importantly, act as a stepping-stone toward access to personal financial services.

### **3.3.5. Regulatory issues**

To date—and beyond those that already apply—there are no additional regulations relating to broadband solutions to support accounting and communications methods within existing traditional savings and loan group structures. Insofar as there is transparency, the regulations are aligned with generally accepted consumer protection policies.

Sites that facilitate the creation of virtual groups, however, share some of the issues relating to P2P and crowdfunding, mentioned above (e.g., consumer protection and reporting requirements), insofar as they bring together people who are in a position to fund each other. Savings and loan groups, however, constitute closed user groups that are based on long-term relationships and, therefore, they present less significant issues than do the more open, transactional P2P and crowdfunding sites. In August 2014, the State of California pioneered a new law to formalize the treatment of these services if they operate as non-profit organizations, exempting them from certain restrictions that normally would apply to lenders.<sup>11</sup>

## **4. Specialized Online Service Delivery Models**

The following experiences relate to how broadband channels may disrupt traditional financial service providers. Rather than changing the fundamental intermediation logic of the market, operations should be streamlined in a way that will reduce transaction costs and information asymmetries. They generally involve new narrowly specialized players that are able to gain an informational or marketing advantage over more established actors by virtue of their focus.

How purely online players seek to break into the high-margin international remittance market will first be reviewed in this section, followed by an evaluation of online lenders that leverage electronic information resources for credit scoring. Lastly, consideration will be given to online aggregators. These are companies that do not offer their own financial services; instead,

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<sup>11</sup> This refers to California Law SB896. For a summary of the provisions, see Quinones (2014).

they collect pricing information on multiple providers and act as conduits for consumers seeking the best deals possible.

## **4.1. Online International Remittance Services**

### **4.1.1. Motivation.**

International remittances are notoriously expensive, especially in emerging markets. This is due to a number of cost factors that are based on various challenges to enter the market, such as (i) the need to develop granular distribution across multiple markets on the side of the sender as well as that of the receiver; (ii) high compliance costs due to regulatory concerns about the potential for anti-money laundering and the combatting of terrorist financing, which differ from country to country; and (iii) the high cost of transferring money across borders through official banking channels with the required financial infrastructure.

### **4.1.2. Opportunity**

Based on the high margins that are perceived in this market, there is a significant number of players that have sought to use electronic means to deliver international remittances at a much lower cost. Broadband solutions have proved to be particularly useful on the sending side, since the transactions take place in developed countries where broadband coverage and usage is more widespread. The senders tend to be more educated and experienced than the recipients. Senders are also attracted to the many services that are offered online and which capture transaction information (including that relating to identity).

### **4.1.3. Global experiences**

Examples of pure-play online remittance services are the US-based Xoom (claiming 30 international destinations) and the Philippines-based Remitly, which specializes in transfers to the Philippines. In general, the remittances are converted into existing (non-broadband) licensed agent-based systems (e.g., Western Union, mobile money, bank branches) in the recipient country.

Regalii, which currently focuses on the United States-Dominican Republic corridor, specializes in assisting immigrants in the United States to pay local utility and telecommunications bills on behalf of their family members in their home country (see Annex A7). Remittances, therefore, are paid into corporate accounts, obviating the need for the recipient to have a network of local agents. There is no need for Regalii to conduct its own

Know Your Customer procedures with regard to the senders, since the bank or credit card issuer they use to fund the remittance already establishes their identity, and the destination and purpose of the funds are restricted to an identified corporate biller.

Quippi, which currently focuses on the United States-Mexico corridor, has a similar concept, although it is based on gift cards. Users in the United States purchase international Quippi gift cards online and communicate the personal identification number (PIN) to the intended recipients in their home country. The recipients can then redeem them through local retailers. Quippi has four retail partners in Mexico that are listed on their website. The service is free to users, as Quippi receives a discount from the retailers.

These services require the sender to have a bank or prepaid account (or access to a pay-by-cash e-voucher system, such as PayNearMe in the United States) in the sending country from which they can fund their remittance. The provider must also have a bank account in each country it operates in so as to receive the payments. Some providers, such as BitPesa in Kenya, now use Bitcoin as a way for senders to fund their remittances. BitPesa can then receive Bitcoins from anywhere without having to be paid into local bank accounts (subject to applicable regulatory restrictions on the use of crypto-currencies in each country). The sender would likely still require a bank account in order to be able to purchase the necessary Bitcoins at a local Bitcoin exchange. This, however, reduces the financial infrastructure that the remitter requires on the origination side.

#### **4.1.4. Market size**

In terms of volume, the World Bank estimates that 13 percent of all international remittances have been transferred online as of March 2014. It also estimates that US\$436 billion will be remitted overseas during 2014 (World Bank, 2014; Anderson, 2014). Thus, the volume of online remittances may well exceed US\$60 million a year.

In summary, broadband channels, so far, have played a much lesser role on the termination side than on that of origination, since they need to be linked into existing cash-out mechanisms. This may well change as broadband becomes more universal in developing countries and, therefore, more accessible and convenient. Transactions will become increasingly digitized resulting in the preclusion of cashing out.

#### **4.1.5. Potential for financial inclusion**

Facilitating international remittances through broadband channels can support financial inclusion in several ways. The most direct benefits would be lower remittance costs and easier

access to money. Other benefits may include (i) higher and more stable incomes through remittances, resulting in a switch from informal to formal solutions; (ii) remittances luring recipients to open accounts at institutions through which they receive the funds; (iii) job creation as a result of a regular flow of international remittances (e.g., credit application processing), while the pattern of remittances received can feed into alternative credit scoring algorithms; (iv) opportunities to link the payment of remittances with money management solutions, such as those remittances that are earmarked by the sender for a particular purpose (e.g., school fees, rent of the family home) or an automatic set-aside rule by the receiver on incoming remittances to fund a layaway purchase; and (v) significantly less expensive online remittances. The World Bank estimates that online services cost an average of 6.06 percent of remitted value against an average cost of 8.36 percent across all remittance channels (World Bank, 2014).

#### **4.1.6. Regulatory issues**

Online remittance services do not present any specific regulatory issues, as long as they comply with existing financial integrity rules with regard to the identification of transacting parties and the reporting of larger or unusual transactions. These regulations can be quite strict in some markets, which can be challenging to the development of new remittance solutions.

## **4.2. Instant Online Personal Loans**

### **4.2.1. Motivation**

Microcredit experience over the last 30 years has demonstrated that there is a significant demand for credit among a large segment of the population for whom formal credit options traditionally have not been accessible. Moreover, overwhelming, uncollateralized microloan programs can generate high repayment rates if they are properly structured. The sector, nevertheless, has struggled with (i) high interest rates resulting from the high cost of handling small loans through field loan officers, and (ii) shifting away from group loans that are based on rigid cycles and undesired—often unclear—joint borrower liabilities.

### **4.2.2. Opportunity**

There are many pure-play online lenders that leverage the Internet in mainly four ways. First, the lenders use it to collect new types of information on, and verify information provided by, prospective borrowers. This disparate information can then be fed into sophisticated analytical models for credit evaluation. Second, lender use Internet communications and automated credit

decision-making engines to deliver instant loan processing to customers. Third, the use of social media is used to promote services and reach a target market that is technologically included but financially excluded. Finally, some lenders use particular social networks, especially by shaming bad debtors in their credit recovery process when loans are overdue.

By combining these capabilities, online lenders are able to cater to a segment of the population that would have traditionally been denied access to credit or faced burdensome and lengthy documentation processes. Online lenders, on the other hand, do not operate from the base of the pyramid, since they seek customers who (i) have demonstrably stable income streams (e.g., salary or remittances); (ii) are sufficiently tech savvy to feel comfortable using online tools and have sufficient web presence; and (iii) have electronic accounts through which they can make and receive payments. Online lenders require at least proof of identity, a mobile phone, and a bank account (into which loans are paid); they may require proof of employment and some insist on having visibility of user presence on social networks.

Loans are unsecured (i.e., they typically do not require guarantors or collateral) and, as a consequence, they tend to carry a fairly steep interest rate. The immediacy of credit often trumps the high cost under which the credit is offered in the mind of the customer.

#### **4.2.3. Global experiences**

The online consumer and payday lending business has burgeoned online. One of the largest online lenders is UK-based Wonga, which offers online payday loans in its home market, as well as in Canada, Germany, Poland, South Africa, and Spain. Boodle and wanna loan? are similar providers in South Africa, and GetBucks offers instant online loans in five south and east African countries, as well as in Spain. Oakam Loans in the United Kingdom has added a reward structure to its online lending operation, with cash-back rewards for on-time repayments. In Mexico, Kueski and Mimoni offer general personal loans, while Micel offers online financing for mobile handsets.

An early example of an online lender that exploited the social graph in credit evaluations was Lenddo, operating in Colombia, Mexico, and the Philippines (see Annex A8). Marketed as “credit based on community trust”, Lenddo seeks to extend traditional trust, based on the personal reputation and social relationships that have underpinned personal credit for centuries (e.g., by the local store, local credit circle, or money-lender) with trust that is based on online communities.

US-based FinancelT applies a different loan solicitation model. Instead of acquiring borrowers directly, it offers retailers the opportunity to provide financing terms to their

customers. The retailers and individual customers need to be pre-approved by FinanceIT, at which point a retailer—on approval—can offer customers affordable monthly payments on large purchases. This process is paperless and is handled digitally through the retailer's smart device.

DealStruck and OnDeck in the United States offer a range of lending products to the small business segment within the country. These include revenue-secured term loans and asset-based lines of credit.

As more and more banks offer their services online, the key competitive advantage of these online lenders remains their credit analysis models. Some concentrate on credit origination and pass the credit risk onto mainstream lenders. Lenddo is moving from direct online lending to become an analytics provider—more akin to alternative credit score providers, Cignifi and Experian MicroAnalytics, both based in the United States.

#### **4.2.4. Market size**

The market for online lending is vibrant, but it remains small in relation to the entire lending market. Outstanding business loans from online lenders in the United States is currently estimated to be approximately US\$10 billion compared to the US\$1.7 trillion in outstanding business loans from commercial banks (Fink, 2014; Mills and McCarthy, 2014).

#### **4.2.5. Potential for financial inclusion**

There is some controversy with regard to online lenders, given the high interest rates that are applied on their unsecured loans, potentially leading their customers into overindebtedness. Expensive consumer lenders have always been in existence, so there is nothing intrinsically new about the general business model of this latest category of lenders. Taking the activity online, however, could arguably accelerate overindebtedness cycles. There is, therefore, a need to regulate and monitor activities closely.

#### **4.2.6. Regulatory issues**

Online lenders present consumer protection risks similar to more traditional consumer and payday lenders. Since they cater to a market with less access to information and fewer options, consumers may be more prone to abusive terms and irresponsible lending practices. Regulators need to ensure that loan terms are transparent, and that they contain appropriate error resolution and cancellation rights. Limits with regard to the rollover of loans should be

established to protect against debt distress. Regulators need to remain vigilant to ensure that the collection practices these lenders employ are fair and proportionate.<sup>12</sup>

While these principles are common to traditional unsecured lenders, adapting existing consumer protection to a purely online environment can present particular challenges. For instance, online lenders in South Africa argue that the requirement of conducting an affordability test in South Africa may be hard to do online.

### **4.3. Price Comparison Sites and Service Aggregators**

#### **4.3.1. Motivation**

Customers are drawn to price comparison sites in order to make informed purchase choices. They may use these comparisons to discover the available providers and the terms of their offers.

Price comparison sites have long been particularly popular in the travel sector—mainly because of the complex yield management techniques that transport companies use to optimize the use of their infrastructure. They have also increased in popularity in the telecoms space, where operators have increasingly sought to differentiate their offers and proliferate their promotions to combat the prevailing high levels of customer turnover. In banking, customer turnover has been traditionally low, but as financial services are digitized, customer loyalty will likely decrease and price sensitivity will inevitably rise. In this new environment, consumers of financial services are likely to find increasing value on sites that compare the price (as well as key features) of competing offers in the marketplace.

#### **4.3.2. Opportunity**

Price comparison sites are designed to strengthen the power of consumers in the face of providers by exposing relevant information to customers so that they can make better decisions. Price comparisons are useful when there are multiple providers; they are particularly relevant in markets where providers use complex pricing structures, presented in a partial, non-transparent, and often confusing or misleading way so as to preclude customers from exercising direct cost comparisons. The purpose of price comparison sites is then to undo this complexity—by expressing the terms of disparate offers in a consistent way, thus reinstating direct comparability across offers and providers.

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<sup>12</sup> Wonga was recently ordered to pay compensation by UK authorities after it threatened overdue borrowers with fake letters from legal firms.

While the structuring of price comparisons may sound simple, in practice there are many ways in which to calculate common metrics and present the resulting information. For instance, if there are flat fees, customers may make different inferences if the cost or return information is presented on an absolute money or annual percentage basis. Discrepancies between price comparison sites may entirely be due to methodological differences that can undermine the transparency objective of these sites.

Moreover, while pure price comparison sites essentially are meant to be information tools for buyers, some sites act as a conduit to the online properties of various service providers and, hence, act more as aggregators than pure information providers. Their incentives can become biased if they receive placement or brokerage fees from the online providers they channel customers to.

In a further twist, some providers of price comparison information sell their service on an unbranded (or white label) basis to other sites, including financial service providers that show on their website that they are the least expensive. Thus, not only are their funding terms obscure to users of the sites they power; they also do not have a visible brand to convey and protect.

Because prices are easier to compare relative to other elements of service (e.g., product quality, customer care levels), comparison sites tend to focus attention on price. They typically, however, include a comparison of the various features associated with each product. Service quality issues are usually relegated to voting by and comments from other users on price comparison websites rather than by being independently assessed. In some cases, this could lead to overly aggressive price-based competition, as other elements of service are under-reported on the website and, therefore, undervalued by its users. They can, nevertheless, still be a useful tool for discriminant customers who wish to assess the extent to which a given price differential is justified on the basis of brand or service quality.

#### **4.3.3. Global experiences**

Financial price comparison sites are particularly prevalent for insurance and mortgage contracts that entail more small print. Price comparison sites are used heavily in the United Kingdom.<sup>13</sup> Examples of these are MoneySuperMarket (see Annex A9), GoCompare, BeatThatQuote (recently acquired by Google), and OMGCompare (which sells access to its engine to service providers on an unbranded basis). Examples in other countries include Bonkers in Ireland, Wheretobank in South Africa, and ComparaOnline in Chile.

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<sup>13</sup> For instance, one third of the motor policies written in the United Kingdom during 2013 were sold through these sites, according to the UK's FCA.

Rocket in Colombia is a web-based service that has a comparison engine at its heart, but rather than exposing the different providers' offers on a standardized table, it surfaces what it deems to be the right product for each user, based on a series of online questions about the user's needs and circumstances. It, therefore, acts more as an online financial advisor than an information resource.

Some price comparison information resources are made available by public institutions and non-government organizations as part of a broader mission to put downward pressure on prices at the overall market level and instill price transparency—not just to surface the better deals. The World Bank has a web-based resource, Remittance Prices Worldwide, which covers 226 international remittance corridors. It lists the various available product/provider options and ranks them according to fee, exchange rate margin, and transfer speed (on two standard remittance sizes). Microfinance Transparency lists microcredit pricing for over 530 institutions in 29 countries in a transparent and comparable fashion.

#### **4.3.4. *Potential for financial inclusion***

If price comparison and aggregator sites are governed appropriately and truly represent the interests of consumers rather than the providers, they can play a very useful role in financial inclusion. Their primary benefit would be to enhance competition, resulting in potentially easier access and lower-cost services. These sites can be particularly helpful for new-to-finance consumers seeking the best offers and, in so doing, they can help build public trust in the financial system, as a whole.

#### **4.3.5. *Regulatory issues***

Regulatory policy regarding price comparison sites should ensure that these firms fulfill their role to inform and empower consumers. Key concerns are whether or not they (i) express the relevant information with sufficient accuracy, completeness, and clarity, and (ii) disclose what role they play, if any, in distributing the products evaluated on their site—including what contractual institutional links they may have, if any, with the providers of those products.<sup>14</sup>

In addition, sites that act as aggregators through which financial services are sold should be subjected to the same codes of conduct that apply to those companies that operate in the segment(s) on which they are required to report. Regulators should complement the requirements with guidance on how to present and sell services through price comparison sites,

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<sup>14</sup> The assessment of 14 price comparison sites, conducted by the UK's FCA in 2014, found serious shortcomings of a number of providers, relating to both aspects.

a stand which the UK's Financial Services Authority took in 2011. The guidance should provide clarity on what types of activities and under what circumstances the operation of price comparison sites constitutes mere information dissemination, financial advice, or a brokerage service.

## **5. Delivery of Financial Information and Education**

### **5.1. Motivation**

The last category of experiences relates to financial education resources that are available over broadband channels. While price comparison sites aim to shed light on the available offers across a broad range of financial services and institutions, other websites aim to strengthen the awareness of consumers on how they can best take advantage of those services within the context of broader means, aspirations, and needs. Thus, price comparison sites offer an entirely supply-side view, while financial education content seeks to bridge supply-side offers with demand-side perspectives.

### **5.2. Opportunity**

Broadband is a particularly useful medium to transmit information and, therefore, could become a prime channel to deliver financial education material. The opportunity is not only to increase the volume of information that is available to users, but also to make financial education more interesting and exciting for users through the use of multimedia formats.

There is a plethora of online financial education material, although most is from developed countries. For the United States alone, the American Association of Family and Consumer Sciences lists over 200 websites. The content available can be broadly categorized as follows:

#### **5.2.1. General information resources**

These include sites of financial authorities and consumer protection agencies that contain benchmark rate information, contact information, general advice, and FAQs. Examples are a consumer guide by the United States Federal Reserve Bank, as well as factsheets and glossaries by industry associations and watchdogs that offer reports, such as Consumer Action and A.M. Best Company, both in the United States.

### **5.2.2. Planning tools and financial calculators**

Key examples are those for college financial planning (e.g., National Center for Education Statistics); buying or renting a home (e.g., Yahoo); estimating savings based on savings rates and yields (e.g., Dinkytown); eligibility for deposit insurance coverage (e.g., Federal Deposit Insurance Corporation); college costs (e.g., Rutgers); cash value of life insurance contracts (e.g., Consumer Federation of America); and investment returns (e.g. by AARP).

### **5.2.3. Public access sites**

Public access sites include free credit reports (e.g., as in the United States). They also include official listings of licensed financial institutions, registered financial planners (e.g., the [Certified Financial Planner Board of Standards, Inc.](#)) and provider ratings (e.g., A.M. Best Company).

### **5.2.4. Video explanations**

Video explanations apply to a wide range of specialized topics. These include how to balance a checkbook, types of bankruptcy, protecting against identity theft, buying homeowner insurance, and retirement planning.

### **5.2.5. Structured financial education courses**

Examples of structured financial education courses include paid courses (e.g., Financial Avenue); free ones targeting young people (e.g., MoneySKILL); and specialized courses on retirement planning (e.g., Perdue University). There are also educator materials and lesson plans (e.g., University of Arizona and VISA).

## **5.3. Global experiences**

There are a number of online sites that act as portals or gateways to a range of relevant financial education materials. The Brazilian Banking Association, FEBRABAN, launched a financial inclusion portal, Meu Bolso em Dia, which has already received 900,000 Likes on Facebook. Bússola do Investidor is a Brazilian finance information platform, launched in 2010, which contains a mix of news, tools, and calculators. It also recently introduced a monitoring investment dashboard that users can access for free with a 15-minute delay, and which becomes available in real-time for paid subscribers. In the United States, RevolutionCredit is an interesting web resource that combines a responsible credit decisioning engine for providers with financial education content for their users.

Web resources, such as those mentioned above, are easily available to those with a broadband connection. Financial education for poorer and more rural people in developing countries should be placed on appropriate distribution platforms that can bring together content and device. Fundación Capital's Colombia LISTA program (see Annex A10) claims to be the world's first tablet-based financial education program, which targets social welfare recipients. Their content is designed to be highly interactive through learning-by-doing apps (e.g., "ATM simulator" which seeks to make it both fun and directly useful). LISTA aims to provide a more personalized experience around financial education. By placing the materials on a device that users can use on their own, they can learn at their own pace. Fundación Capital's vision is that their app and expertise in creating digital learning experiences can be leveraged by other private and public organizations that wish to distribute educational materials for the base of the pyramid in sectors beyond finance.

#### **5.4. Regulatory issues**

This type of information resource does not present any salient regulatory issues. There are opportunities, however, for financial authorities to align this content with national financial education objectives and strategies.

### **6. Prospects: Globally and in Latin America**

In this concluding section, the key themes of this paper are brought together. A summary is made of the main market opportunities and challenges presented by broadband channels. Subsequently, some inferences are drawn on how broadband will change the nature of, and the market for, financial services. Finally, the key regulatory issues and potential role of government in promoting these solutions are discussed.

#### **6.1. Assessment of Market Opportunities and Challenges**

The availability of broadband delivery channels represents an increase in the degrees of freedom that financial service providers have to piece together customer experiences. Relative to traditional brick-and-mortar infrastructure, broadband channels can offer (i) a much greater sense of immediacy and ubiquity; (ii) a shift from large fixed costs to smaller and variable unit transaction costs; and (iii) automated collection of a much larger set of data on customers and

transactions. Relative to first-generation mobile money solutions, broadband channels can offer (i) much greater interactivity and usability through the use of graphic elements in the user interface, larger screens that can support richer menus, and a range of personalization and contextualization options; (ii) lower incremental connectivity costs for each megabyte or each transaction; and (iii) less dependence on mobile operators for security and authentication. All this should result in the development of more customer-centric service concepts that can better meet the needs of the financial inclusion target populations.

Making broadband accessible and affordable to the entire population should have a significant impact on financial inclusion. Broadband delivery channels can make interactions between customers and providers much more frequent, engaging (through the use of graphic user interfaces and personalization tools), and data rich (through more information provision, capture, and analysis). This combination of enhanced service quality and much deeper customer understanding can help drive the case for financial inclusion for the provider and the customer.

On the supply side, more data-rich, broadband-mediated services can assist providers better to assess risks by using more powerful analytical tools. In addition, providers will be able to develop more targeted customer-centric service concepts that fit more tightly the needs of individual customers.

Latin America appears well poised to become a vital testing and development ground for financial services that are delivered through broadband channels for a number of reasons. The region has relatively higher education and infrastructure levels than in other developing regions. It has a dense fabric of micro and small enterprises that operate within a relatively developed microfinance sector. Two common languages make it easier to port apps and services across countries within the region. All this is in the context of a level of formal financial exclusion that is not commensurate with most other indicators of socioeconomic development in Latin America.<sup>15</sup>

Some factors, however, may hinder the development of broadband-based solutions in Latin America. Telecoms pricing remains relatively high, and many people may have smartphones but no data plans. There are very high business informality rates, and businesses have an inherent suspicion of recording their activities digitally.

This suggests some clear key enablers for the spread of such services through Latin America, such as the following:

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<sup>15</sup> According to the World Bank's Global Findex financial inclusion database, Peru and Indonesia had a similar share of adults with an account at a formal financial institution in 2011 (approximately 20 percent). This share is smaller in Bolivia, Colombia, Mexico, and Peru than in India, Kenya, or South Africa (35 percent or more).

- The continued spread of smart mobile devices, the creation of affordable mobile data plans that turn smart devices into connected devices, and the extension of cellular coverage deeper into rural areas so that broadband is available to all.
- The development of easily deployable apps-on-the-cloud, which have common standards and application program interfaces (API), are robust to network speed and quality, and adapt efficiently to various types of mobile devices. Fragmentation of the solution space, based on mobile screen size, device operating systems, and back-end platforms, could push many players to avoid the digital trend while early adopters confront the pain of piecing together their digital service environment. This is a difficult area for Latin American regulators to address on their own: any set of standards that governments may wish to create may result as sub-optimal, quickly superseded by newer technologies, or not backed by regulators in other regions of the world.
- The effective selling of the business benefits of these digital services, so that small local businesses see a compelling case for adoption—despite the necessary business formalization and taxation visibility that they imply.
- The development of fraud prevention management systems, based on sophisticated analytics and strong operational processes. Many institutions will incur much pain, and will need to go on steep learning curves as they confront a growing tide of online fraud.

## **6.2. Three Major Implications for Financial Service Models and Market Structure**

A first major implication is that widespread access to broadband—and, hence, to the Internet—will enable the development of new financial service concepts and delivery models. The key characteristics of the new digital financial landscape from the global experiences reviewed above can be further refined. What can be predicted is the following:

- Services will embody an increased range of customer choices. Customers will be guided through these choices by increasingly sophisticated customer analytics and personalization tools.
- Providers will invest heavily to develop sophisticated customer engagement models in order to capture as much information as possible from their customers. The sheer quantity of customer information collected will become a key competitive tool among providers.

- Credit providers will tap into an increasing range of relevant information sources with which to make credit decisions, especially from social graphs and online reputations. Credit providers will be increasingly focused on mediating online information sources and online referral opportunities, rather than only soliciting information from customers.
- There will be a shift from marketing specific products to constructing and managing more integrated and seamless customer experiences. Thus, the boundaries between product categories will become increasingly fuzzy.
- By enabling services that are more personalized, take greater account of social context, and are consumable in smaller, more frequent transaction amounts, formal services will increasingly emulate what people already do today. There will be a range of new service offers and business models that seek to fill the gap between informal and formal financial services and this, in turn, will reduce the need for customer education for first-time users.

A second major implication is that the competitive nature of financial markets will shift significantly. There will be an increasing range of specialized providers that will achieve very low cost and large scale by building and developing their specific reputation and expertise, respectively, in particular service segments. This fragmentation, in turn, will give rise to a class of aggregators that do not sell their own services, but position best-in-class services or those of partners.

As a result, the traditional barriers to market entry—based on control over retail footprint communications channels and advertising muscle—will gradually erode. Broadband, in particular, will undermine the control of mobile operators over mobile financial services. The source of scale advantages will shift from being based on physical infrastructure to the aggregation of customer information. In a digital information world, sheer customer numbers can be the strongest competitive advantage.

A third major implication, as financial services migrate to broadband channels, will be a much sharper focus on financial inclusion by businesses. Over the last decade, financial inclusion policies have tended to center on individuals and households as a useful way to reduce socioeconomic vulnerability. As financial services migrate to broadband channels, however, opportunities are likely to be relatively much larger for the micro and small enterprises, resulting in an increase in business benefits from recording and transacting more of their business digitally. Creating a greater digital footprint will bring about expanded access to credit for working capital—from online specialists with sophisticated analytical tools to business peers

or upstream value chain players they are networked with, and to unintermediated P2P online credit marketplaces. It will also lead to business efficiencies and a greater sense of financial control, making them more receptive to growth.

As smaller, informal businesses avail themselves to more digital financial services, there will be a knock-on increase in access to finance for those living in the communities these businesses serve. As they formalize and create more jobs, their employees will naturally have access to credit. Furthermore, these businesses will be in a better position to offer credit terms to their customers who may find it difficult to tap into affordable credit sources themselves.

### **6.3. Key Regulatory Issues and Potential Role of Government in Promoting these Solutions**

Financial regulators can expect five sets of issues to take center stage as the digital financial services that are delivered on broadband channels develop. These include the following:

#### ***6.3.1. Transparency and disclosure***

The proliferation of online lending sources may make it more difficult for borrowers to correctly assess the benefits and risks of each. It is essential that there be clear rules on the transparency and disclosure of terms by online lenders, so that individual and small business borrowers can easily understand the conditions of the transaction. There may be a need for greater standardization of how terms are expressed to make it more easily comprehensible to borrowers and more comparable across lenders.

#### ***6.3.2. Borrower education and awareness***

Effective programs for financial education and borrower awareness should complement these disclosure rules so that individuals and small business borrowers (who are not accustomed to having ready access to formal credit) can engage with the new online borrowing sources responsibly. They also should be informed about the various choices available.

#### ***6.3.3. Client data protection***

The new breed of online lenders will rely on trawling a much broader set of information from public registries, social networks, and other internet services to ascertain the creditworthiness of new categories of borrowers who do not already have an established credit record. Clear data protection rules should be in place to ensure that this information is accessed, stored, used, and

discarded appropriately. Users should be able to exercise some form of control over what information providers have access to. Data should only be used for the purpose that it is specifically collected for (at the same time, notifying the user), and client confidentiality rules should limit how data may be shared between various service providers.

#### **6.3.4. *Regulatory reporting and oversight***

General indebtedness levels will need to be monitored carefully as people and businesses gain much faster access to new forms of credit from a broader range of players. There is little experience on how these services will respond to an economic downturn, and some online lenders already offer unsecured consumer credit at very high interest rates. There need to be clear reporting requirements for online lenders and financial marketplaces so that regulators and policymakers can monitor macroprudential risk across the financial system. Regulatory agencies should ensure that sufficient resources are devoted to analyzing credit levels on an increasingly finer segmented basis.

#### **6.3.5. *Regulation and supervision of digital marketplace platforms***

There is already increasing recognition of the unprecedented opportunities for entrepreneurs and microbusinesses—segments which traditionally have suffered from credit and capital constraints in emerging markets—to obtain direct funding through managed online marketplaces on a peer-to-peer or crowdfunding basis. Regulators will need to be increasingly pragmatic in allowing some degree of public solicitation for funding through these channels, unencumbered by disproportionately burdensome securities regulations. These platforms, however, will need to be regulated to ensure that (i) they are managed in a responsible and professional manner and that they have the necessary financial resources to be sustainable; (ii) they take all the necessary steps to protect any client funds they hold or process in the course of their business; (iii) they make sure that investors are aware of the terms of their investment and that only those who have the capacity to understand the risks involved are accepted; and (iv) they impose appropriate disclosure and reporting requirements on those who are funded (via debt or equity) through their platforms.

Of these financial regulation issues, only the last is new in a significant way; the others are traditional regulatory issues that will only become more important over time as the range of providers broadens and their offerings become more diverse and differentiated. As a result, policy tools will increasingly tend toward provider registries rather than licenses; industry codes of conduct rather than prescriptive regulations; regular information audits rather than

legal challenges; and proactive information provision by public entities rather than reliance on disclosures by private providers.

Beyond regulation, there are certain steps that financial regulators and policymakers can take to promote the take up and use of these broadband-enabled solutions for financial inclusion:

- Promote digital payments solutions. All the services mentioned above rely on the customer having a digital payment capability through which it can make necessary contributions and repayments and collect any funds. In Latin America, today, this is mostly done through interbank transfers or by using debit cards, credit cards, and online payment services (e.g., PayPal) that are linked to bank accounts. The penetration of these services, however, remains limited and this, by definition, limits their potential to address the needs of the unbanked. Policymakers should ensure the emergence of low-cost digital payments that are suitable for the mass market, especially the informally occupied majority. These solutions will need to be based on proportionate Know Your Customer (KYC) requirements, flexible cash-in/cash-out mechanisms that leverage the retail infrastructure in the country, and a broader range of authorized nonbank (e-money, prepaid, or narrow bank) account issuers that do not intermediate funds. Their development would also be supported by interoperability between the various payment service providers in terms of platform interconnection and merchant acquiring.
- Public promotion and use. The new types of digital financial marketplaces—and the movement known as the “sharing economy” (*economías colaborativas* in Spanish) within which they are developing—are, so far, reaching a certain segment of early adopters, who tend to be mostly young, well-educated, tech-savvy, highly socially minded, and connected individuals. In order to break out into the mass market, these emerging platforms would benefit from more explicit public support from government agencies. This would serve to give them a sense of legitimacy in the public’s mind that has, so far, been lacking and to allay fears about their propriety and legal status, given their newness. This support can be in the form of news reports and events that explain how these platforms can complement more traditional financial options, showcasing of enterprises that have benefited from these platforms, and discussions of the issues and risks involved. This support can also take the form of public agencies that use these

platforms from time to time to meet their own policy objectives (e.g., to fund smaller projects involving public and private participation).

To this list of financial policy and regulation issues should be added, of course, the telecoms policy requirement of securing universal broadband access at an affordable cost. The digital-broadband divide will be particularly nefarious if—in addition to all the benefits that come with having access to the Internet today—one adds the preferential access to low-cost financial services. This includes the following two key types of policies:

- Universal access. There will need to be very large investments to push broadband telecoms infrastructure ever deeper into rural areas. These will need to be funded from fiscal sources or through an industry cross-subsidization scheme.
- Equal access. The providers of telecoms services should not be in a position to extend their control over the communications access of their clients into effective control over the financial services enjoyed by their customers. They should be held to equal access standards that require them to offer their communications channels to all financial service providers on a non-discriminatory basis. This should occur naturally as services migrate to broadband mobile data channels, but regulators need to remain vigilant to the potential abuse of mobile operators' control over the mobile channel.

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## **Annex A: Sample Experiences for Each of the Ten Areas Identified Herein**

### **A.1. A Closer Look at Enhanced Functionality and Personalization of Savings Accounts: ICICI's iWish**

iWish is a goal-based, flexible recurring deposit scheme offered by ICICI, a leading private commercial bank in India, and marketed as the “wish fulfilling deposit”. Users can define their own savings goals online by specifying a goal name, selecting a spending category, and entering a target goal amount and timeframe. Goals can range between six months to ten years and from US\$80 to US\$160,000 in value.

Users can contribute flexibly to their goals, subject to a minimum deposit amount of US\$6. They are not required to commit to a particular savings frequency, but they can optionally set up an automated recurrent payment scheme from their checking account by selecting a savings amount and frequency of their choice. Even in the latter case, users can make contributions to goals at any time, and there are no penalties if installments are skipped or contributions vary from the originally planned amount. Users are reminded to contribute regularly to their goals.

Goals can be cancelled at any time (and the money withdrawn), but there is a penalty for early withdrawal of between 0.5–1.5 percent of the saved balance. Beyond these penalties, there are no fees charged. Money saved against iWish goals is remunerated competitively, relative to other fixed or recurring deposit products in the market. Interest is calculated separately for each installment made, based on the actual period of time when the money is in the bank (i.e., between when the installment is paid and when it is withdrawn).

Users can optionally share their goals on social media (currently, only in Facebook) and solicit support for their goals from friends and family. Users can select which goals they wish to share on Facebook and which of their Facebook contacts they wish to share them with. Friends wishing to contribute to a user’s goal can do so directly from their Facebook account by using a VISA debit card issued by any Indian bank.

Access to a broadband channel is required for users to create, edit, and share socially their goals, as well as to manage any automatic notifications or payments they wish to set up. The enhanced user interface, made possible by the broadband channel, is designed to make the experience more engaging and fun for users. Users can track progress against goals online, and an online game and calculator can be used to help build up savings motivation.

iWish was launched in December 2012 and is powered by Social Money of the United States, the company behind SmartyPig. There are now approximately 2.5 million iWish accounts, and the average saved balance is more or less US\$300.

## **A2. A Closer Look at Working Capital Loans for Businesses that Digitize Their Transactions: Kopo Kopo's Grow**

Kopo Kopo is a merchant acquirer, primarily for mobile payment service provider, M-PESA, in Kenya. It focuses on smaller retail businesses and chains that serve the mass market. Kopo Kopo's strategy is to add value to those retailers who engage in mobile payments by offering them a range of business and financial tools that leverage the information garnered from their merchant transactions. This includes analytics (based on payment histories), outbound SMS marketing campaign tools (based on clients' mobile phone numbers), and financial reporting. Their latest value added service is Grow, a merchant cash advance service that leverages electronic merchant payment flows that are visible to Kopo Kopo for credit evaluation purposes.

afb in Kenya, a third-party credit provider, makes all the credit decisions and carries the credit risk. Kopo Kopo brands the service, manages all customer interactions and credit repayments, and offers payment history information to the credit provider as an input for their credit decisions. Grow is available to retailers who have received merchant payments through Kopo Kopo for at least three months. Merchants can apply for their Grow advance, online, for a value of up to US\$60,000 and obtain instant credit decisions.

Loans get repaid automatically, based on an agreed share of daily electronic merchant payment receipts that are automatically set aside by Kopo Kopo to repay the loan. Loans are unsecured beyond this automatic repayment rate. The loan carries no interest, but there is a flat-rate arrangement fee. Loans are understood to be for working capital for the retailer, but there is no contractually defined loan purpose.

The terms offered to each merchant are set by the credit provider based on (i) the merchant's history of payments through Kopo Kopo; (ii) the merchant's performance, benchmarked against similar businesses and garnered from Kopo Kopo's client transaction database; and (iii) other stratified information available from external data sources. The fixed fee tends to be around 15-20 percent of principal; maturities typically start at two months for small retailers and six or seven months for larger ones; and the share of daily merchant payments, automatically set aside for loan repayment, ranges at approximately 20-50 percent (with an average of 35 percent) of mobile payments made through Kopo Kopo.

Kopo Kopo began piloting Grow in November 2013 and formally launched it in May 2014. It has disbursed more than US\$1.5 million in merchant cash advances to approximately 500 stores throughout Kenya. Customer satisfaction has been very high, with a repeat user rate in excess of 50 percent. Kopo Kopo sees a strong business incentive to migrate their customers to higher-quality devices and channels. The richer the communication and the user interface, the more value-added services Kopo Kopo can offer them and the more easily customers will be able to discover, contract, and manage their Kopo Kopo services.

### **A3. A Closer Look at Connections to Cloud-Based Business Applications: Frogtek In Mexico**

Frogtek offers small shopkeepers in emerging markets a digital platform to record every purchase and sale of goods they make. Retailers access the platform through an Android app that is downloaded on their smartphone or tablet. The device is further enhanced with an external bar code reader with which to automatically identify products and, optionally, a card reader to process digital payments. Each store's current inventory and transaction history is stored in the cloud by Frogtek. Frogtek analytics can then generate a broad range of business data for each store, as well as benchmark the metrics across their entire base of stores.

The information thus generated can be directly useful to all players in the value chain. The small shopkeepers, themselves, can gain a stronger sense of control over the business conducted by their employees on a daily basis and they can track their store's performance more accurately over time. The Frogtek analytics capability can also provide pricing guidance to shopkeepers, based on the store's sales history and financial margins, as well as the pricing applied by other stores. Distributors, such as Unilever and Bimbo, can gain much more immediate access to information about channel performance at the store, as well as product and geographic levels. Furthermore, market research companies could, in principle, gain visibility of retail trends on a much more granular and immediate basis than is possible through traditional in-store surveys.

Frogtek, so far, has deployed its service at approximately 2,000 stores in Colombia and Mexico, and is now exploring other markets in Africa and South Asia. In its test-bed market in Mexico, Frogtek adopted a direct distribution model. In Colombia, however, it has chosen to sell its platform through Carvajal, a market leader in electronic top-up/payment platform solutions. Their partnership is premised on synergies from managing the sale of physical goods and electronic vouchers (and, in future, cash-in/cash-out services) from the same digital platform. In

both these markets, the Frogtek solution is supported by the widespread placement of bar codes by manufacturers on most products sold at stores.

Frogtek leverages the mobile device by conducting most store trainings and customer care sessions through Skype. In the future, Frogtek plans to offer a range of online videos to assist stores to optimize their business in a variety of ways, based on the wealth of data collected by Frogtek on their behalf. Frogtek also uses Facebook as a marketing channel to promote its service to shopkeepers.

#### **A4. A Closer Look at P2P Lending Platforms: Cumplo in Chile**

Cumplo was launched in May 2012 as the first person-to-person lending site in Latin America. As of early September 2014, Cumplo had over 700 loans outstanding, of which half were to individuals and half to enterprises. Enterprise loans tend to be much larger in size: of the US\$32 million outstanding, only 6 percent represented individuals, while 81 percent was in guaranteed enterprise loans and the remaining 13 percent was in enterprise invoice loans.

SME loans are secured and carry relatively low risk. The bulk of loans to enterprises, posted on the Cumplo website, are guaranteed through a licensed loan insurer (Sociedad de Garantía Recíproca), which is able to tap into a government loan guarantee scheme for eligible SMEs. A smaller proportion of posted enterprise loans are backed by the enterprise's invoices for collection and are, therefore, akin to factoring. On these, Cumplo asks the payer to confirm the invoices; it also asks the borrowing enterprise to assign the invoices to Cumplo as collateral and to post a bond by check.

SME loans typically carry interest rates of 11-14 percent versus 20-25 percent on personal loans, reflecting the higher level of guarantees that enterprise loans carry. SME loans can have a term of up to four years, except for those backed by enterprise invoices, which have a term of approximately 45 days.

The minimum funding offer size to a particular borrower is US\$170, and each prospective lender specifies an interest rate at which they are willing to fund a given borrower, which must be no higher—but can be lower—than what the borrower proposed. The site pools the funding from various lenders. If the total amount, offered by prospective lenders, is equal to or less than the amount requested by the borrower, all bids are accepted at the borrower's proposed rate. If, on the other hand, the amount offered by prospective lenders exceeds the amount solicited by the borrower, the offers with the lowest rate are accepted until the lender's required amount is filled.

Cumplo manages all financial and legal processes on behalf of borrowers and lenders, but it does not intermediate the credit. Cumplo also has investment management tools for lenders, allowing them to track their payments, scan for other opportunities, and analyze their investment track record. For its efforts, Cumplo receives a flat fee only on funded loans, which is automatically deducted from the loan principal amount.

Upon launch, Chile's banking regulator deemed that Cumplo was violating the banking law by accepting deposits from the public and it threatened a criminal investigation. This action, however, was not pursued, and the company has been operating unencumbered ever since.

#### **A5. A Closer Look at Crowdfunding Platforms: Ideame of Argentina**

Ideame is the largest project-based crowdfunding site in Latin America. Individuals can list projects on the website, as long as they are of legal age, are nationals of the country of the website on which they are making the listing, and have a domestic bank and PayPal accounts. At the time of listing, sponsors must specify the funding goal and funding period, and they are required to attach a written project summary, relevant pictures (e.g., product blueprints), and an explanatory video. The funding request must also explain what the reward is for funders, which can be a free copy of the product to be developed, a prominent mention, or a unique experience (e.g., meeting the project team).

Project sponsors can select between two fund-raising modalities. The main one is “all or nothing”, under which funders' committed amounts are actually paid to the project—only if the project reaches its target fund-raising amount during the fund-raising period during which the project is listed on the Ideame website. If the project does not reach its funding target, Ideame will return the money pledged back to the investors within 15 days. The second funding modality is “everything counts”, under which all funding commitments are paid to the project, even if the project does not meet its total funding objective within the fund-raising period. In this latter case, however, the project promoter must submit a revised business plan to Ideame; Ideame checks that the funds can be usefully employed, even if the funding originally envisioned is not raised before disbursing the committed funds.

Listed projects are publicly displayed and searchable on the Ideame website only if they achieve commitments of 10 percent of the target funding amount. Before then, the listing is only visible by individuals who have a link to the listing. The objective is ostensibly to ensure a modicum of support from the sponsor's network of friends and family before going public. Once a project is funded, the Ideame website offers a number of mechanisms for project sponsors to remain in contact with their funders through the life of the project.

Funders must pay Ideame at the time that they register their commitment to a project on the Ideame website. Ideame offers a variety of payment mechanisms for funders to contribute to their selected projects, including online payment processors (primarily PayU and MercadoPago), credit cards, PayPal, Bitpay (using Bitcoins), and a variety of local cash voucher payment services. Ideame neither charges listing fees to project sponsors nor search fees for funders seeking projects. They only charge project sponsors a fee of 10 percent (plus applicable tax) of committed amounts to successfully funded projects.

To date, Ideame has closed funding for some 700 projects, amounting to US\$2.5 million in funding. This represents 60 percent in Argentina, with Chile and Mexico following as the next largest markets. The most common types of projects funded through Ideame have been creative projects that have to do with publishing, video, movies, and music.

#### **A6. A Closer Look at Platforms for Managing Savings and Loan Groups: Puddle in the United States**

Puddle is an on-line lending circle mechanism that does not rely on physical group meetings. Marketed as “credit powered by people,” it is intended to support the development of virtual accelerating savings and loans schemes (referred to as “puddles”) by leveraging social networking bonds between group members and enhancing the financial transparency of their transactions and accounts. Puddle is free to join and use.

Users login to the Puddle website, using Facebook, and identity verification is processed through Facebook. Puddles can only be joined by invitation from its existing members. When forming a new Puddle, the Puddle sponsor chooses a name, describes what the group is about, uploads a display photo, and invites friends, using their email addresses. Members must have a bank account into which they can receive their borrowings and a debit card from which they can make their contributions into their Puddle. Members of a Puddle can contribute as much as they like into the Puddle; there are no fixed contributions. The money saved by Puddle members (net of amounts borrowed) is kept on a pooled basis in bank accounts in the name of Puddles.

Members can borrow up to five times the amount they have previously contributed, provided that at least three members have contributed to the Puddle. The group does not approve individual borrowings; they are extended automatically by Puddle as long as the group has positive net contributions. Borrowings are repayable in flexible instalments over a three- to six-month period.

Loans do not carry interest fees, but a borrowing fee of 4 percent is assessed. The other Puddle members as credits earn borrowing fees, and they can use these credits to pay for

future borrowing fees. If a client is late in repaying a loan, the client is charged an additional borrowing fee and a reminder is sent to repay.

Members can be part of as many Puddles as they like, but can only have outstanding borrowings from three Puddles. Borrowings are backed by Puddle members: if someone doesn't pay back a loan, the other members of that Puddle will lose an amount proportional to their share of money in the Puddle. Any user who fails to return the money borrowed is banned from Puddle. Members can withdraw from Puddle and take their money back as long as they do not have outstanding borrowings and there are no pending delinquent loans within that Puddle.

Puddle was launched as a pilot in 2012 and officially began operations in June 2014. So far, 100 groups have been created, involving 1,100 active users. The average borrowing amount is US\$600 and the repayment rate is 98.5 percent. Much of the credit is short-term (users take, on average, 2.8 loans each year).

#### **A7. A Closer Look at Online International Remittance Services: Regalii in the United States-Dominican Republic Corridor**

Regalii is an international web-based remittance service that focuses on helping migrants in the United States directly pay the bills of their family members in their home country. Their core belief is that senders wish to control the destination of the funds that they send back home, and they fulfill that by linking each remittance to a utility or telecoms (and, in future, education) service that needs to be paid. Unlike most international remitters, they do not process direct remittances to individual recipients; money can only be sent to companies that offer listed services to the recipients.

Regalii was launched in June 2012, and has since been serving the United States-Dominican Republic corridor. They have recently added the United States-Mexico corridor, and have aspirations to serve other Latin American markets. Users can send money to pay for cable, water, gas, landline telephony, and post-paid mobile bills, or to buy mobile airtime from a list of companies that Regalii has reached a commercial agreement with. To date, this includes 24 utility and telecoms companies in the Dominican Republic and 15 in Mexico. They claim 50,000 users in the United States, with the majority paying for two to three utility and telecoms services a month with an average bill (hence, remittance) amount of US\$30.

Senders in the United States create a profile on the Regalii website, stating their name, phone number and email address. They can make payments by selecting the country and utility or telecoms company to be paid, the amount of the bill, and their US bank account or credit card details. Regalii converts the bill amount into US dollars at the market rate. In some cases,

Regalii pays the selected company from its local bank account in the destination country or, in the case of some Mexican billers, into their account in the United States. The relevant merchant is paid within 24 hours of a user requesting the payment.

Every payment that users make incurs a flat-rate fee of US\$3. Once a sender has entered the details for a particular bill they wish to pay in their home country, Regalii will retrieve future bills directly from the biller and will notify the sender by SMS when the next bill is due and what amount is owed. Users can also view their payment history on the Regalii website.

Regalii promotes its service primarily with senders in the United States, and uses online mechanisms (mainly Facebook), local radio and TV advertising, and posters and flyers at local events. So far, it has concentrated its marketing efforts in the New York area, where there is the largest Dominican immigrant population, but it now aims also to target the Los Angeles area, where there is the largest Mexican immigrant population.

#### **A8. A Closer Look at Online Instant Personal Loans: Lenddo in Colombia, Mexico, and the Philippines**

Lenddo is an online credit scoring system that uses a variety of personal and social networking information to undertake credit evaluations for personal loans. Marketed as “credit based on community trust”, Lenddo seeks to extend the traditional trust, based on personal reputation and social relationships that have underpinned personal credit for centuries (e.g., by the local store, local credit circle, or money-lender), with trust that is based on online communities.

The loan application process is entirely online with no requirement to visit Lenddo offices and, hence, is dependent on a broadband connection. Loan disbursements and repayments are made to/from customer bank accounts. To apply for a personal loan, the user first registers and inputs his/her personal data, including income situation and bank account details. Subsequently, authorization is given to Lenddo to connect to the social network sites (e.g., Facebook, Twitter) of the customer, who details the purpose of the loan and the proposed amount (typically limited to one month’s salary). Lenddo performs salary verifications and supplements its own score with credit reference information from the local credit bureaus, where available.

Lenddo’s target market is younger, employed people who are active on social networks, but have not yet had a chance to build a credit record with formal financial institutions. It is, therefore, an attractive option for those seeking a first loan, although Lenddo seeks to retain customers beyond that through a number of retention activities. Lenddo has built up a brand with affinity for this segment, and it undertakes a variety of below-the-line marketing activities.

Lenddo was founded in 2011, and now operates in Colombia, Mexico, and the Philippines, where it has issued a combined 15,000 loans. Lenddo claims a loan approval rate of approximately 40 percent. Lenddo is now shifting its business model from direct online lending to provide credit-scoring services for banks and other lenders. Thus, Lenddo can concentrate on the analytics and the lenders can take responsibility for risk management and regulatory compliance. In Colombia, Lenddo is already supporting credit analyses for credit cards issued by Colpatria (of the Scotiabank group). In the Philippines, it is working with mobile operators to support the credit checks that are necessary to convert customers from prepaid to post-paid plans. Lenddo also intends to work with airlines to verify credit card payments made online.

#### **A9. A Closer Look at Price Comparison Sites and Service Aggregators: MoneySuperMarket in the United Kingdom**

Founded in 1999, MoneySuperMarket is now the United Kingdom's leading price comparison website, providing users with information on the best deals in a wide range of product families, such as household products, entertainment material, holiday packages, and financial services. They claim to have approximately 120 million visitors to their website each year, and their stated goal is "to save 10,000,000 households more than £200 each in 2015". It is authorized and regulated by the FCA and is listed on the London Stock Exchange.

The MoneySuperMarket website lists fifteen product categories under money and sixteen under insurance. In each product category, there are a number of filters that users can apply to narrow their search (e.g., under current accounts, users can select only accounts that pay cash back, have a free seven-day switch guarantee, or incorporate an overdraft facility). Most financial products are ranked by best price (or interest rate), but users can choose to rank products on more specific criteria (e.g., longest free-interest period or best benefits and reward package). There is also a rating on customer service that is based on prior user ratings.

Users can click directly to provider websites from the ranked product tables and, therefore, it acts as a customer acquisition channel for providers. Providers pay a marketing fee to MoneySuperMarket whenever a customer clicks a link to the provider's website or applies for a product through the MoneySuperMarket website. Some lenders and insurers have a tighter contractual relationship with MoneySuperMarket that allows the latter to access the financial service provider's website to form a quote for MoneySuperMarket users. This quote is based on the information supplied by the user to the MoneySuperMarket website and is displayed directly on the same website, without having to be redirected to the financial service provider's website.

Providers can also opt to pay an extra fee for their product to be highlighted on product lists, making it a “sponsored product”, but this will be shown within their rank and not at the top of the product list. Providers can also request to be taken out of the price comparison lists, so that their products are not displayed.

The MoneySuperMarket website offers some ancillary services to users beyond product and price comparisons. Users can check their credit report from the credit bureau, be introduced to a licensed investment advisor whom they can talk to directly, access some financial tools and calculators, and view relevant industry news.

#### **A10. A Closer Look at Financial Information and Education: Fundación Capital’s Colombia LISTA**

Colombia LISTA is an initiative of Fundación Capital in Colombia, which aims to expand financial capability and asset building at scale by delivering financial education materials digitally to rural women who receive conditional cash transfers under the country’s *Más Familias en Acción* (MFA) program. The material is designed to help women make more informed financial decisions, encourage them to save through the formal financial system, manage their budgets and plan ahead, and protect against fraud and theft. The content is structured around an interactive self-learning program, which is delivered on tablet computers (iOS and Android platforms).

The Colombia LISTA app and associated educational content is pre-loaded on the tablets in order to save on connectivity costs. Women community leaders (*madres líderes*) associated with the MFA program typically manage the tablets. These leaders, who are unpaid, rotate the tablets between them, each looking after the tablet for a period of time. When they have a tablet, each leader is responsible for promoting the service with, and making the tablet available to, all the MFA beneficiaries in their area. Each woman who wants to use the service can borrow a tablet for free and go through the content at her leisure. Women have to register, in order to use the app, and must complete a short survey on the tablet during registration and upon completion. The survey is used to detect changes in attitude, knowledge, and skills, and it can provide early indications of behavioural change.

Users may take three to four hours to go through all the educational modules, and can do so all at once or in several sittings. Users are engaged through various exercises and games embedded within the course materials. There is an ATM simulator and a mobile wallet simulator, as these are the two primary mechanisms for receiving the MFA cash benefits. While users are not scored, their progress through the material is monitored so that program sponsors

can assess the effectiveness of the tools and correlate it with user characteristics. Users who have completed the course subsequently get reminders of helpful tips, as well as messages of encouragement and nudges, on their personal mobile phones, by text or voice message. The program also has experimented with giving out rewards for completing various parts of the material in the form of airtime credits to users' mobile phones.

Fundación Capital initially trialled the app and support model in Colombia in 2012, reaching out to over 1,000 women with 22 tablets. They experienced high rates of participation among target women, and 74 percent of them completed the e-learning program. Having adjusted the app and content in 2013, they are now rolling out the program to 10,000 women in Colombia and expect to increase that to 100,000 women with government support. The Colombia LISTA program is being cofinanced with government and financial institution partners, as well as international donors (initially, it was donor-funded).