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Scenarios for Branchless Banking in 2020

The growing use of branchless banking channels[1] over the coming years is inevitable in most countries. But it's far less certain whether large numbers of the unbanked poor will use these alternative channels for financial services beyond payments, such as savings and credit. CGAP and DFID undertook a six-month scenario-building project in which almost 200 experts from more than 30 countries helped answer the question "How can government and private sector most affect the uptake and usage of branchless banking among the unserved majority by 2020?"

We identified four forces most likely to shape the answers:

- The changing demographics of users
- The actions of increasingly activist governments
- Rising crime
- The spread of Internet access via data-enabled phones even in poor countries and communities

We also isolated four key uncertainties with important effects but uncertain outcomes:

- Which types of entities will be allowed to provide branchless financial services?
- Will providers craft viable business models for services beyond payments?
- How will competition play out?
- How will consumer, business, and regulator confidence be affected by the inevitable failures that will happen?

We created four scenarios that interweave these forces and uncertainties in different settings to produce very different trajectories over the next 10 years.

Notwithstanding recent hype, branchless banking for the poor is at an early stage of development. It is conceivable that a majority of those who today do not have access to formal financial services may have access to electronic payment instruments by the end of the next decade. Wiring electronic payment highways is a worthwhile goal for the decade. But it is not sufficient. To ensure that poor people use branchless banking and to create opportunities that could help alleviate poverty, both governments and providers should track adoption patterns closely and understand customer needs. Private sector players should recalibrate their return expectations: achieving robust, scalable branchless business models will take time, most likely longer than expected. Government activism can be a powerful force for encouraging wider and broader reach of branchless services if regulators successively enable innovation by making markets for financial services competitive through stages of development. In addition, governments can promote financial inclusion by ensuring that their own welfare and salary payments are delivered via branchless channels.

Introduction

Branchless banking today bears little resemblance to what it looked like 10 years ago. In 1999, the dotcom bubble was at its most inflated, and some suggested that the bank branch was obsolete—that "clicks" would soon replace "bricks."[2] While some pioneering firms, especially in Europe, had introduced early mobile payment services, only 8 percent of the world's population had mobile phone subscriptions (Mas and Rotman 2008). Low-income countries in particular had very few users of either Internet or mobile.[3] When it came to banking and the poor, all eyes were on the emergence of a range of microfinance institutions (MFIs) that relied on personal contact with clients.

What a difference a decade can make. The dotcom bubble deflated in 2000, and the bank branch is not dead. In many countries, the number of bank branches has increased in absolute and even per capita terms over the decade. And MFIs have continued to grow—by some measures serving close to 100 million active loan customers at the end of 2008 (Gonzalez 2008).

1 CGAP and DFID define branchless banking as the delivery of financial services outside conventional bank branches using information and communications technologies and nonbank retail agents, for example, over card-based networks or with mobile phones.

2 "The banking industry will suffer the same fate as the dinosaur within the next five years unless the brick and mortar branch banking system is cast off in favor of more nimble delivery alternatives" (Fowler and Hickey 1995).

3 Mobile penetration figures from Wireless Intelligence. Internet penetration figures from ITU: "Internet indicators: subscribers, users and broadband subscribers" 1998–2008 at http://www.itu.int/ITU-D/ICTEYE/Reports.aspx#

The unexpected success story of the past decade has been the speed and extent to which mobile telephony usage has spread. More than 80 percent of the world's population is now within mobile coverage. In 2009, the GSM Association (the GSMA) reported more than 4 billion mobile subscriptions globally, with 80 percent of new connections in emerging markets and mostly by lower income consumers.[4] Branchless banking has emerged as a promising new approach to accelerate financial inclusion. By changing the costs and risks of distributing financial services, channels outside the branch have enabled large commercial banks and new entrants like mobile network operators (MNOs) to contemplate reaching large numbers of unserved people.

In recent years, no example of branchless banking has done more to stoke enthusiasm than M-PESA, the mobile payment service offered by Safaricom, Kenya's largest MNO. Since its commercial launch in March 2007, more than 7 million people—approximately one in four adult Kenyans—have signed up. Largely (though not only) due to M-PESA, the proportion of Kenyans considered to be formally financially included has almost doubled to 41 percent in just three years (FSD Kenya 2009a). M-PESA sometimes overshadows the success of a different approach to branchless banking found in Brazil that relies not on mobile phones but on point-of-sale (POS) devices deployed at agents. Following a ramp-up of agents by state and private banks, Brazil could claim by 2005 that every municipality in the country had a financial service point, changing the geography of financial inclusion. Based on these and several other promising pioneers, donors are investing large sums into branchless banking.[5]

These examples suggest that the trend toward the use of branchless channels is strengthening. But is growth of branchless channels inevitable? Will the use of branchless banking channels continue to grow, or will it fizzle out because of lack of take up or unviable business models? What factors have the most potential to affect how branchless banking will evolve in coming years? What actions should be taken now to influence the outcome? This paper describes the results of a six-month scenario-building project that sought to identify strategies in branchless banking that can lift or depress the trajectory of financial inclusion globally.

The driving question that guided the project was "How can government and private sector most affect the uptake and usage of branchless banking among the unserved majority by 2020?"[6] Between February and August 2009, 194 people from over 30 countries participated in workshops in Kenya, South Africa, the United Kingdom, and the United States; a series of in-depth interviews; and an online predictions market through which participants placed "bets" on the future of branchless banking. Participants included senior managers from MNOs, banks, MFIs, technology firms, and more than 60 financial sector and other regulators. A core team conducted additional analysis and synthesized findings from the process.

In this Focus Note, we follow the standard structure of a scenario-building process to report our findings.[7] The first section describes the salient features of today's landscape in branchless banking. The next two sections highlight four forces and four uncertainties that will likely shape how the sector will evolve in the next decade. We then construct four scenarios that are not predictions of the future, but rather stories that show how forces and uncertainties can weave together to produce varied outcomes—some familiar, some surprising. The scenarios enable readers to reflect on their own strategies for branchless banking. The conclusion seeks to consolidate broad responses as to how best to shape the future direction of branchless banking as a means to improving poor people's access to financial services.

4 The GSMA; Wireless Intelligence. The GSMA is the global trade association for the mobile communications industry.

5 The Bill and Melinda Gates Foundation focuses in part on strategies to "lower costs and increase value for providers and the poor through technology-enabled business models." DFID has proposed a new Challenge Fund to promote the roll out of innovations linked to mobile telephony (DFID 2009). Technology is one pillar of CGAP's strategy to advance financial access for the world's poor.

6 This question reflects several deliberately chosen components. The reference to private sector and government is a recognition that both have a critical role to play. The phrase "most affect" leaves open the possibility of both negative and positive effects from their actions. The addition of "usage" stresses that mere account opening is a poor measure of financial inclusion if not paired with data showing that customers use them to fulfill their needs. "The unserved majority" is a broad reference to the large number of people, most of them poor, who today do not have access and/or do not use convenient, safe, and affordable financial services.

7 Kelly (2005) describes scenario building as "a disciplined form of story-telling about possible futures. These scenarios are not predictions. Rather they are alternative, equally plausible, and quite different hypotheses about what might happen. They are designed to stretch our thinking, challenge our assumptions, and help us prepare for multiple possibilities instead of assuming a single future or simply waiting…to react to whatever the fates might throw our way."

Current Reality of Branchless Banking

Main Messages

- Financial inclusion is growing in most countries, but often as a result of the expansion of conventional banking channels, such as branches and automated teller machines (ATMs).
- Bricks-and-mortar growth is inherently limited by its cost. However, branchless banking, though cheaper, has only modest reach to date in most countries.
- Where branchless banking is occurring, several of the following factors are usually at work: *(i)* industry belief in future profitability; *(ii)* enabling regulatory change; *(iii)* a dramatic fall in connectivity costs; *(iv)* the creation of cash-handling agents using existing networks.
- Current hype about the potential of branchless banking is running ahead of reality. Massive sustained success in reaching the unserved majority requires *inter alia* better informed insights on poor people's financial needs and adoption behavior. This is only now starting to accumulate.

Almost 4 billion people are unbanked—more than two-thirds of the population in the world's low- and middle-income countries.[8] They are the huge unserved majority today. In recent years, there has been growing effort and interest in measuring financial inclusion, but as yet we have no globally consistent datasets that can give us a clear sense of how this proportion has changed over the past decade. However, evidence from countries like Brazil, South Africa, India, and Kenya strongly suggests that there has been an upward trend (FinMark Trust 2003 and 2008; FSD Kenya 2009a; Kumar 2005; World Bank 2008a). In many developing countries, consistent economic growth over the past decade has brought new wealth and demand for financial services while liberalization has led to increased competition in retail financial services in many places. As a result, the reach and coverage of the formal financial sector has grown.

Technology has played a role in this expansion, though we should not overstate its role to date. Information technology has primarily helped to enable expansion through more conventional banking channels, such as branch and ATM. For example, in growing from 0 to 8 million deposit customers in five years, Mexico's Banco Azteca used a robust electronic banking system to connect a large network of mini-branches in stores of its parent Elektra, a large seller of consumer durables, and other retail chains (Rhyne 2009). For Equity Bank in Kenya, the ongoing rollout of conventional and vehicle-mounted mobile branches combined with a rapid deployment of ATMs has fuelled tremendous growth: from fewer than 100,000 customers to 3.4 million in less than a decade.[9] Both banks serve primarily a middle- and lower income clientele. South Africa's Mzansi account is a debit card bank account that is used mainly at ATMs. The country's largest banks designed the account to be affordable and appropriate for the unbanked, and the take-up has been very high: since launch in 2004, more than 6 million accounts have been opened, mostly by people who had never previously had a bank account (Bankable Frontier Associates 2009).

At a country level, too, the proportion of conventional bank touch points—branches and ATMs—has risen in low-, middle-, and high-income countries alike. In Kenya, the number of ATMs has increased seven-fold and bank branches almost doubled since 2003 (FSD Kenya 2009a). In Brazil, the combined ratio of ATMs and branches per 100,000 people grew from 62 in 1999 to 99 in 2009 (Banco Central do Brasil 2009). This happened at the same time as a massive increase in the number of branchless banking agents in Brazil. Conventional banking channels are far from dead.

However, future growth of conventional channels faces inherent limits. After a decade of increasing the number of its branches, Bank of America recently decided to close 10 percent of its U.S. network, citing changing consumer preferences toward new channels such as Internet and mobile (Wall Street Journal Market Watch 28 July 2009). Equity Bank believes it may soon reach a ceiling on the number of viable branches and ATMs. The investment required for developing countries to reach the level of deployment per capita of conventional touchpoints in more

8 CGAP, the GSMA and McKinsey analysis using data from the World Bank (2008a). The World Bank's classification of countries is available at http://go.worldbank.org/K2CKM78CC0

9 http://www.equitybank.co.ke/, www.themix.org

developed countries is prohibitive. For example, for Kenya to reach middle-income levels of branches and ATMs at current costs, it would require capital expenditure of some US$2 billion. This figure is six times the pretax profit of the entire Kenyan banking sector in 2008. Searching for lower cost channels is critical for senior bank managers and policy makers responsible for financial inclusion.

The essential proposition of branchless banking[10]—that financial providers can reduce fixed costs by using existing facilities and devices, whether owned by the customer (e.g., mobile phones) or by agents—has caught the attention of providers. However, the record to date has been modest.

Recent surveys of customers of branchless channels in Kenya, Brazil, the Philippines, South Africa, and India are starting to build a picture of clients and their usage patterns. Today's customers are primarily not the unserved majority, although unbanked and poor people are starting to use branchless channels nonetheless: 30 percent of M-PESA users were previously unbanked in 2008 (FSD Kenya 2009b), and 26 percent of Filipino mobile money users live on less than US$5 per day (Pickens forthcoming). These findings confirm research in 2006 that more than one-third of clients of South African mobile banking service WIZZIT were previously unbanked (Ivatury and Pickens 2006). In the Brazilian state of Pernambuco, 90 percent of people in the three poorest segments use banking agents to pay bills (CGAP 2007).

We were able to identify few providers today using mainly branchless channels who meet two criteria: serving more than a million active low-end clients and making a profit through doing so. One of the few is the Mobile Banking business unit of First National Bank (FNB), a large South African commercial bank that has explicitly sought to make mobile payments the prime channel for serving underserved or marginal customers. FNB Mobile emphatically claims profitability on a fully cost-absorbed basis (FNB 2006). Despite its large numbers and soaring revenues, the chief executive officer of Safaricom, Michael Joseph, stated in May 2009 that M-PESA had not yet become profitable on a standalone basis, although the unaccounted benefits of savings on airtime commissions and customer churn undoubtedly make the overall financial picture for M-PESA compelling (Wireless Federation 7 May 2009).

This lack of large robust models is hardly surprising, given their recent appearance: branchless banking for the poor is still by and large a "young" business. Only in Brazil has branchless banking been underway for a whole decade, triggered by a 1999 change in agent regulation (see Box 1) (Banco Central do Brasil 2009).

The rollout of branchless banking to date has been driven by four underlying factors:

- *Industry belief in future value.* The shortage of profitable large-scale business models today has not discouraged new entrants who see value

Box 1: Brazilian agency regulation

Brazilian banks have used agents (*correspondentes*) since the 1970s. However, it was not until 1999 that the central bank expanded the way in which banks could use agents—permitting agents to open bank accounts, handle deposits and withdrawals, and facilitate bill payments. Using the new opening, Caixa Economica, a state-owned bank, concluded a deal to convert 9,000 lottery kiosks into agents. The following year, the central bank lifted a prior restriction that had limited agents to municipalities without bank branches. Caixa quickly expanded to cover all 5,600 municipalities in Brazil. A third set of regulations was issued in 2003, motivated by the government's financial inclusion policy: any financial institution was now permitted to engage agents. The use of agents has grown steadily since. The total number of agents tripled from 36,474 in 2003 to 117,000 in 2008. Payments and bill collection dominate in both transaction volume (1.6 billion transactions in 2007) and value (US$93.3 billion). However, agents are also used extensively for operating bank accounts: 398 million deposit and withdrawal transactions worth US$39.6 billion were done at agents in 2007, accounting for one in every five transactions and 30 percent of all value flowing through agents.

Sources: Banco Central do Brasil, FEBREBAN

10 See Ivatury and Mas (2008) and Mas and Siedek (2008).

from the sheer numbers of potential customers in the unbanked majority. Up to 120 mobile banking services could go live in 2009, according to a survey of MNOs, vendors, and others in the mobile banking space conducted by CGAP and the GSMA with McKinsey in April 2009 (Pickens forthcoming).

- *Enabling regulatory approaches.* These have allowed new models to start up, although they may also have affected their growth. Following the example of Brazil, the Reserve Bank of India (RBI) allowed banks to appoint certain types of agents from 2006. This change provided enough opening for new providers, such as FINO (a financial services technology provider), to emerge. In little more than two years, FINO has reached 5.8 million poor clients with various financial services on behalf of banks.
- *Rapidly declining costs of real-time connectivity.* Mobile data channels, which are now widely used to connect POS and ATM networks, are at least 50 times cheaper than the fixed-line communications options available in 1999 and are much easier to deploy. The increasing availability and falling cost of connectivity has enabled real-time connections that previously were not viable.
- *Harnessing existing distribution networks for cash handling.* The commissions paid on prepaid airtime have fuelled rapid growth in widespread distribution reaching even small villages through small merchants. New branchless models have sought to use the fact that this network already handles cash. M-PESA now reports more than 11,000 agents (four times the combined number of bank branches and ATMs in the country).[11]

In terms of market development, branchless banking in an increasing numbers of countries is taking off with many new providers clamoring to enter the market and often simply copying the models of the few early pioneers without having their own clear business model.[12] This parallels stages in other markets, such as Internet commerce in the dotcom era, when a high degree of certainty about market potential fuelled the development and entry of new technology—but in that case providers had a clearer sense of how to profit from the opportunity.[13]

Success in branchless banking ultimately depends on offering customers a service proposition that is superior to existing options. To date, branchless channels meet this standard only for some clients. High initial adoption can be followed by high dormancy rates or infrequent usage, which indicates that the service offering is not as useful as it first appears. Some 40 percent of Mzansi basic bank accounts in South Africa have become inactive, and an even higher proportion of registered users of Filipino mobile money may be inactive. Indeed, the rate of inactivity of Mzansi accounts exceeded the inactivity rate on prepaid airtime subscriptions in South Africa, which is already considered high (Bankable Frontier Associates 2009).

Ultimately, poor people in the unserved majority will use new electronic services when these services meet real needs. One way of segmenting need is according to livelihood. Figure 1 does this for the 2.6 billion poor people in the world (using the $2 per person per day poverty metric). Several large groups stand out in their distinct needs for financial services:

- *Youth.* The largest segment at 800 million, young people 16 and older, may lack regular income and rely more on receiving transfers from family members—meaning that they offer low revenue potential in the short to medium term. However, they are more likely to exhibit early adopter characteristics.
- *Elderly.* This is also a large and, in many countries, growing group that may be receiving some form of social pension as a small regular income on which other extended family members depend.
- *Smallholder farmers.* This very significant group (610 million) has diverse needs for financial

11 Safaricom for number of agents (http://www.safaricom.co.ke/index.php?id=749). Number of bank branches and ATMs from FSD Kenya (2009a).

12 M-PESA, for example, has met with less success in Tanzania. Though it has not taken off as quickly as in Kenya, it may still find success, just on a longer timeline. See http://technology.cgap.org/2009/08/18/mobile-banking-in-tanzania-concluding-thoughts.

13 Indeed, there are several interesting parallels between one of the dotcom success stories—PayPal, with 184 million accounts globally that did not exist in 1998—and M-PESA today. Both needed multiple iterations before finding a profitable business model, faced uncertain regulatory environments as a new kind of player, and built competency in electronic fraud management.

services that range from many payments (to suppliers, from customers ranging from other poor individuals to large agribusinesses), to insurance, credit, and savings products that help to address the cyclicality and uncertainty of this income stream.

- *Microentrepreneurs.* Numerically, this is a smaller segment (180 million) than smallholder farmers but one that is economically active and also has a range of diverse financial needs, including credit of multiple kinds, short- and long-term savings. They are likely to be active senders and receivers of remittances.

Successful branchless business models must work not only for providers and end clients, but also for agents. Providers depend on the energy of agents for customer acquisition and for managing liquidity so as to support cash withdrawals and deposits. In fact, successful providers view their agents as an important category of customer, rather than a passive channel. These schemes have *inter alia* structured their commissions to make being an agent pay well. For example, the typical M-PESA agent in urban slums and rural areas earns 4.3 times greater profit from being an agent (US$5.01 per day) than selling airtime (US$1.55 per day). This requires high average transaction volumes. M-PESA agents average some 86 transactions per day, but agents in other countries, such as the Philippines, see far fewer customers and struggle to earn sufficient revenue. Against the revenue flow, agents must incur costs, such as the costs of maintaining an adequate float of electronic money (e-money), which necessitates frequent time-consuming trips to a bank branch. There is still considerable work to do to understand how to build and manage viable agent networks.[14]

In summary, there are rising expectations that branchless banking will prove a cost-effective way of reaching large numbers of unserved customers. But that expectation fails to take into account the fact that to date branchless channels have had a limited role in reaching large numbers of lower income customers on a sustainable basis. To assess the role that branchless banking will play in reaching the unserved majority, we need to look beyond the current reality to understand the forces and uncertainties in play and see how they will affect the rollout of branchless banking.

Figure 1: Segmentation of the Poor, by Livelihood

Source: Oliver Wyman (2007).

14 Pickens, 8 Sept. 2009 blog post at http://technology.cgap.org/2009/09/08/understanding-what-drives-profits-for-agents -m-pesa/

Four forces shaping the future of branchless banking

Main Messages

- Demographic changes—including a greater number of younger consumers coming into the market and greater mobility at least within countries—will be favorable for the adoption of branchless banking.
- Activist governments will play a greater role as regulators of the financial sector, providers of social safety nets, and providers or encouragers of the rollout of low-cost bank accounts and financial infrastructure. This expanded role may be helpful for financial inclusion.
- While security concerns about cash crime will continue to drive the adoption of electronic transaction channels, the rise of electronic crime will affect consumer confidence and test the risk management of financial providers.
- Internet browsing via mobile phones will reduce costs of financial transactions and enable new players to offer financial services.
- The global financial crisis will have indirect effects on branchless banking through strengthening the role of government and fuelling inflation.

Forces are akin to the headwinds or tailwinds that affect a long haul flight. They may change in strength, and sometimes may cause a very turbulent ride, but, although invisible, they are always present and always affect the speed and comfort of the journey. In this section, we identify four forces affecting branchless banking that may act either as tailwinds, boosting the overall trend of financial inclusion over the next 10 years, or headwinds, slowing it down. While in this section we consider each force in turn, in reality and in the scenarios section that follows, the forces interact, causing uncertainties about the outcome. The following forces were distilled from a much longer list of forces arising from the research.

Is the financial crisis of 2008–2009 a force?

To be sure, the effects of the financial crisis originating in the United States and the United Kingdom have been severe in many countries. However, in most instances the worst predictions have not come to pass. We are confident in saying the financial crisis itself has generally not led to the kind of long-lasting impacts on branchless banking that would be necessary for it to qualify as a force over the next decade. But the financial crisis could nontheless exacerbate other forces and have an indirect effect. For example, if fiscal stimuli were to fuel further inflation, already a force squeezing the poor through rising food and energy prices (World Bank 2008b), this would erode the disposable income of the poor yet further, constraining their ability to afford new financial instruments and undermining the real value of formal savings. At the same time, if inflation is high enough, it may also drive demand for efficient real-time payment instruments and systems. This latter factor fuelled the growth of electronic payment systems in Brazil in the 1980s.

More certain is the effect the crisis has already had on the role of government. Governments will likely regulate the financial sector more closely, showing more skepticism toward innovative approaches and new players. However, from our engagements with regulators, we have been impressed by how strong the goal of financial inclusion remains in developing countries. This objective may temper some of the reaction from the crisis. Governments are also already responding to the global economic downturn by investing more vigorously in extending social safety nets. We discuss these factors further as part of the second force.

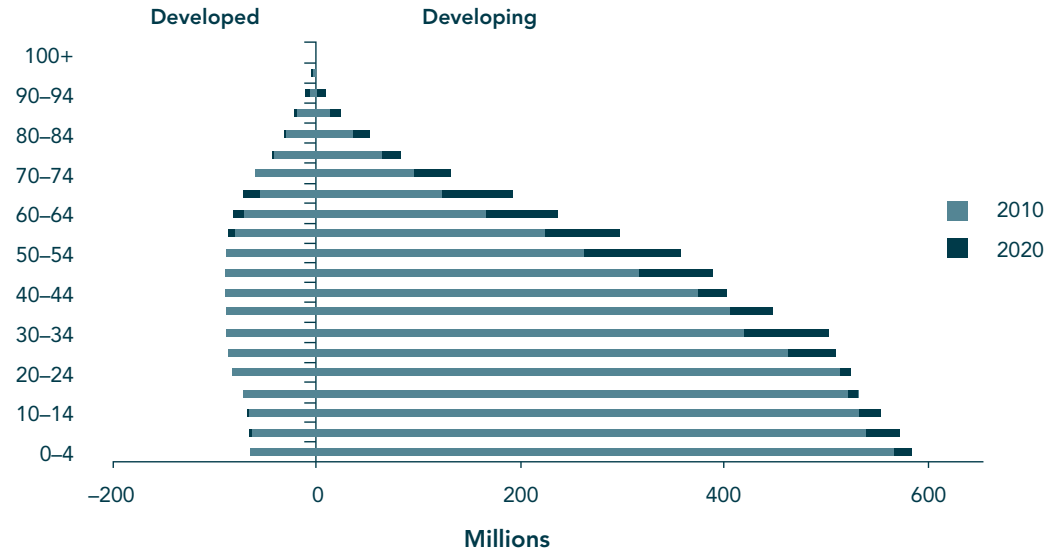
Force 1. Demography is changing such that

1.1 there will be a greater number of younger consumers in most developing countries
1.2 there will be more people moving to cities and across countries

Demography is an ever-present force in most scenarios[15]—with high impact and certainty. After all, users of branchless banking in 2020 are already alive today. Clients in 2020 will include a large number

15 See previous outcome of CGAP Scenario project Financial Inclusion 2015 in Littlefield et al. (2006).

Figure 2: Developed and developing country demography



Source: U.S. Census Bureau International Data Base

of today's youth, as Figure 2 shows. Young people have limited capacity to spend on new services, but a higher propensity to adopt new technology.

Another seemingly unstoppable demographic force is the movement of people—both within countries as a result of continued urbanization, and across countries through international migration. The UN Population Division (2007) expects that the developing world will be 51 percent urban by 2020, up from 45 percent now. This alone will fuel rising demand for improved ways to transfer money remotely from urban areas back to family in the countryside.

International migration patterns are harder to anticipate. Demand for labor in developed countries combined with internal displacements in developing countries will likely promote ongoing cross-border migration, even as formal barriers to immigration grow. The nature of these barriers will affect whether the formal remittance market grows as rapidly as it has over the past 10 years—quadrupling to over US$300 billion per annum (World Bank 2008c). For example, the legal status of workers has a material impact on their ability to satisfy customer due diligence (CDD) procedures to qualify for access to formal financial services in the host country.

The force of demography in its various manifestations creates a strong positive pull toward faster adoption of branchless banking, as more young people use new technology and migrants demand reliable, convenient, and affordable ways to make remote payments.

Force 2. Governments will become more activist in this space by

2.1 extending the safety net through cash transfers or cash for work
2.2 increasing the intensity of regulation on already regulated financial institutions
2.3 encouraging availability of low-cost banking and financial infrastructure

Pushed by the crisis, governments will be increasingly active in three domains that affect the viability of branchless banking: extending the social safety net, regulating more intensively, and at the same time pushing for formal financial inclusion. However, government actions will likely be driven from a variety of motives and different agencies, not necessarily guided by a coherent strategy to support the extension of branchless banking. Some of these motives will be related to the desire of governments to serve (or be seen to serve) poorer citizens through redistribution to mitigate the most dire poverty; others to use the regulatory power of the state to manage risks in financial markets; and still others related to government interest in encouraging or requiring providers to make basic products and services widely available.

Figure 3: Social Transfer Programs Launched (1999–2009)

1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
China		Colombia	Argentina	Brazil	Bangladesh	Cambodia	Bolivia	Haiti	Burkina Faso	Bangladesh
		Jamaica	Bangladesh	Ecuador	Kenya	Colombia	DRC	Indonesia	Guatemala	Kenya
		Turkey	Cambodia	Mexico	Pakistan	Dominican Republic	Malawi	Swaziland	Nigeria	Pakistan
			Chile	Zambia	Peru	El Salvador	Pakistan	Yemen	Philippines	
						India	Panama			
						Peru	Paraguay			

Source: Pickens, Porteous, and Rotman (forthcoming).

The continued rollout of new and expanded social programs will create strong demand from governments for branchless payment infrastructure that can safely pay funds cost effectively to recipients with less instances of fraud or corruption. Over the past 10 years, cash transfer programs have become an important part of the public safety net especially in middle income developing countries (Fiszbein and Schady 2009). More than 60 countries have such a scheme (World Bank 2009), a majority of which have been launched in the past eight years (see Figure 3). Some reach broad swathes of the population: for example, one in four families in Brazil and 22 percent of households in South Africa. Globally, the reach of government payments to the poor is impressive: at least 170 million poor people worldwide already receive a regular payment of some type from their government (Pickens, Porteous, and Rotman forthcoming).

But making these payments alone will not lead to broader financial inclusion. Governments may be persuaded that providing financial services to recipients can be a win–win–win strategy for governments, beneficiaries, and financial institutions. Recent tenders for payment of social transfers in Colombia and Kenya promoted financial inclusion by requiring providers to offer a basic savings product to beneficiaries. Card-based bank accounts are already widely used by millions of beneficiaries in India, South Africa, and Brazil (Pickens, Porteous, and Rotman forthcoming). More evidence is needed on how recipients will use accounts if they are provided.

On the supply side, governments will shape the extent of the opportunity through their policies toward provision, whether using state-owned banks (as in Brazil), by moral suasion and prescribing fee limits (as in India), or tendering more generally (as in South Africa). The large numbers involved in social protection schemes may make low-cost business models viable. The pressure on banks to serve low-income customers is growing as financial inclusion becomes more important as a policy objective in developing countries. More than 1 in 10 countries already require financial institutions to offer basic bank accounts.[16] Banks typically view these accounts as unprofitable, and they have had mixed results so far as a tool of financial inclusion. Since the RBI introduced its policy to encourage "no frills" accounts in 2005, Indian public and private banks have opened 15.8 million accounts (Ramji 2009). However, a recent study determined that, in some districts at least, more than 85 percent are dormant, primarily due to distance from bank branches, low financial literacy, and poor marketing by banks (Thyagarajan and Venkatesan 2008). South Africa's experience of the Mzansi basic bank account is a more positive example of response to moral suasion, although issuing banks claim to lose money on each Mzansi account, making the product unsustainable in the absence of the suasion (Bankable Frontier Associates 2009).

Governments also function as regulators of the financial sector. The global financial crisis has been attributed in part to lax regulation and inadequate consumer protection, and it seems likely that

16 In a recent survey, 19 of 139 countries reported requiring basic bank accounts (CGAP 2009).

regulators will be more wary about supporting, condoning, or approving new financial institutions and innovative products. The forms and extent of this backlash against financial liberalization will differ across countries, but both developing country regulators and regulated entities interviewed as part of the scenarios process expect the intensity of regulation to increase. This will affect the ability to innovate, although innovation often thrives in "cracks" even in strict regulatory regimes.

Some governments may take more vigorous steps to push the pace of financial sector development. For example, regulators' power over payment systems is growing as more countries pass national payment legislation to cover what has heretofore been an unregulated area if not conducted by banks. Regulators may use new powers to require that new payment systems are interoperable, or they may create central bank-owned national switches to enable this (World Bank 2008d). Some governments may even try to accelerate the arrival of a cashless society. Malawi and Singapore provide cautionary tales of direct government involvement in these spheres (Box 2).

Force 3. Crime of various types will continue to rise.

The risk and cost of cash crime is an important force on the demand side—driving customer adoption of electronic forms of payment—as well as affecting the business case of providers. Crime varies greatly in its manifestations and incidence across countries. Two types are especially germane to this analysis:

1. Cash crime, where individuals or institutions (such as banks or merchants) who are known to carry cash are vulnerable to robbery
2. E-crime, where new forms of crime target electronic delivery channels

Cash crime drives up the cost of holding cash (which is often perceived to be "free" by consumers) relative to other alternatives. In Kenya, for example, the cost of insuring cash and transporting it has risen materially in recent years, in part due to central bank regulations mandating increased security after a series of high-profile armored car robberies.[17] In South Africa, ATM bombings have increased dramatically since 2005—with the effect of frightening and deterring customers from using the machines.[18] As long as cash crime

Box 2: Big leaps forward? Malswitch and SELT

In an attempt to accelerate interconnection, the Reserve Bank of Malawi launched Malswitch in 2002 as a national payment switch that is able to connect all bank clients to an ATM and POS network. Malswitch also issues biometric smartcards to the public, in part as a means to bank the unbanked. However, larger private banks balked at joining, because they saw Malswitch's card issuing business as direct competition. They also expressed doubts about the cost of the proprietary smartcard technology. By 2007, only four smaller banks had signed on and a small number of cards—90,000—were then active. Banks have since developed Visa-certified platforms to interconnect. With low transaction volumes, Malswitch requires ongoing subsidy from the government.

The government of Singapore went further. In 2001, Singapore's Board of Commissioners of Currency (BCCS) announced its intention to replace cash with an electronic legal tender, Singapore's Electronic Legal Tender (SELT). The government hoped to reap large savings. An Asian Banker survey found cash cost Singapore US$656 million in 1998 and projected the costs to exceed US$1 billion by 2006. The government aimed to have SELT in place by 2008. However, widespread resistance from the public (who saw cash as easier to carry) and lack of a well-developed e-money platform have put SELT's future on hold. Even in a small, wealthy society like Singapore, the transition to electronic channels has proved much slower and harder than expected.

Sources: CGAP interviews with Malswitch, Reserve Bank of Malawi, Ministry of Finance and Malawian banks, Kok (2001), Papadopoulos (2007), Van Hove (2003).

17 Interview with Ron Webb, managing director PayNet (2008)

18 SABRIC statistics for 2008, available at https://www.sabric.co.za/

remains a factor, which seems certain over the next decade in most places, this will boost demand for electronic channels.

However, while robberies are still the most visible form of crime, looking ahead, emerging forms of e-crime are at least as worrying to providers and increasingly to consumers. The spread of e-commerce has opened new opportunities for criminals, enabling fraud to be committed more quickly, at larger scale, and across borders (Glaessner, Kellerman, and McNevin 2004). The early days of e-commerce showed both how quickly e-crime can innovate in response to the vulnerabilities in new channels to rise quickly as a threat, but also how it can be managed. The ability to manage e-fraud risks was a major factor in PayPal's early survival and success (Jackson 2004).

Branchless banking in developing countries is at the very early stage of experiencing e-crime, simply because the amount of usage has not warranted the attention of syndicated criminals who have the resources to make this more than a nuisance to the system as a whole. However, as usage grows, so too will e-crime. In July 2009, South African newspapers reported on fraud involving the interception and fraudulent use of Internet banking one-time passwords sent to clients' mobile phones (The Citizen 12 July 2009).

Senior managers of branchless banking schemes interviewed as part of this project displayed a keen sensitivity to the threat of crime, particularly if a massive single episode or a chronic condition of fraud and threat led to loss of consumer trust. One interviewee described it as "the nightmare scenario," and the only thing they could imagine derailing the growth of mobile financial services. Laws that limit the liability of customers arising from unauthorized use of credit cards and other electronic accounts have played an important part in creating consumer confidence that has accelerated the spread of e-commerce in countries like the United States. Similar laws may be warranted and necessary to promote branchless banking elsewhere. A key uncertainty is how well consumer confidence will weather an almost certain rise in e-crime in new channels that may even cause some to fail. We discuss this in the next section as one of the four key uncertainties for the next decade. Undoubtedly, the competence to manage electronic fraud will determine which providers survive and succeed over the next decade.

Force 4. Internet browsing via mobile phones will change the competitive landscape.

We have taken for granted here that the rollout of mobile communications will continue, albeit at a declining pace as even low-income markets become saturated. It is likely that there will be few people outside the reach of wireless communications by 2020, and few who do not have connectivity to wireless communications in some form. Indeed, the lack of reliable and affordable energy sources is today increasingly a greater constraint on development in poor and remote areas than is communications. Devices like mobile phones, which require less energy than PCs and ATMs and which can be recharged by windup or solar power,[19] are an increasingly important part of any rollout of branchless channels to off-grid areas.

This much seems obvious. So we have chosen instead to highlight a different force, which is yet not fully recognized by all of today's branchless banking providers. Today's successful payment services in developing countries have been built using certain mobile-specific channels[20] that even basic handsets could support.

However, over the next 10 years, the spread of affordable data-enabled phones in developing countries will increasingly enable consumers to have direct access to the Internet. This is made possible by a dramatic fall in the price of mobile devices with basic Internet browsing (see Figure 4) and falling prices of data services, which are also available on a prepaid basis. Such "enhanced" phones are increasingly the basic handsets of tomorrow. As Figure 5 shows, they already make up half of all phones shipped to emerging markets in 2009. Faster speeds and falling prices of both data-enabled handsets and data-over-mobile networks will mean greater usage of data channels on these phones, effectively making Internet

19 Such as the new handset launched in 2009 by Safaricom in Kenya priced at US$35 (Basu and Karimi 2009).

20 Such as SMS and USSD, which are two different types of mobile technology standards for transmitting data. See http://en.wikipedia.org/wiki/Short_messaging_service and http://en.wikipedia.org/wiki/Unstructured_Supplementary_Service_Data

Figure 4: Real Cost of Phones[21]

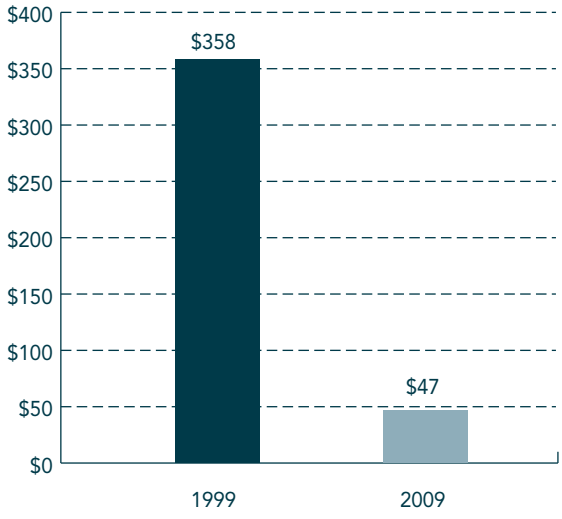
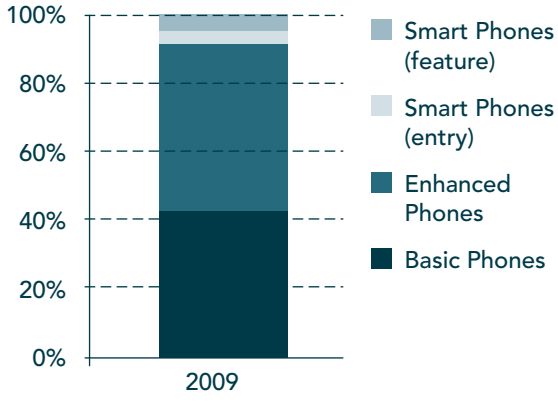


Figure 5: Handset Sales in Developing Markets[22]



access via mobile pervasive in many developing countries during the next decade.

Few branchless banking services have been offered over mobile Internet in developing countries (yet), but social networking content is already driving uptake among segments such as youth. In South Africa, the mobile instant messaging service MXit has attracted more than 13 million users who send more than 250 million messages per day (in a country of 47 million) (Vecchiatto 2009 and Lombard 2009). Hardware barriers to Internet access are also decreasing. Microsoft recently announced OneApp, an application that enables phones with slow processors and low memory to surf the Web like more powerful handsets. Users will be able to access a dozen sites initially, like Facebook and Twitter.[23] In August 2009, Nokia announced its intention to provide widespread mobile payment services as part of its desire to promote pervasive Internet that "connects people" (Young 2009). In short, there is much work being done today to make Internet over mobile more widely available in developing countries.

What does this force mean for branchless banking? First, Web interfaces will improve the user experience compared to today's services running over USSD or SMS bearer channels, which typically require customers to input alphanumeric sequences or navigate relatively unsophisticated menus. Improved usability could make branchless banking more accessible to a wider swathe of low-income consumers, for example by enabling more icon-based menus for low-literacy clients. Also, as Internet use expands in general, consumers will become more comfortable with using their handset for increasingly sophisticated purposes, which should also bolster adoption of electronic channels for financial services.

Second, access to the Internet will enable providers to offer solutions that do not depend on the security solutions offered using the chip (SIM card) in the phone. Applications resident on the SIM card can provide end-to-end security for messages but require the cooperation of the MNO. While there is some debate whether java applications[24] can provide similar levels of security to applications resident on the SIM card, they are likely to provide higher security than today's USSD and SMS-based services. This will reduce barriers to entry for new players who are not MNOs—whether banks or others. The growth of the mobile Internet may cause a boom in a new generation of branchless banking providers, raising substantial questions about risks to consumers, as well as the future shape of the competitive landscape, one of the uncertainties taken up in the next section.

21 Devices in Figure 4 are the RIM 850, which went on the market in 1999 with basic browsing, and the Samsung B100, one of today's cheapest handsets with GPRS and JAVA. Sources: GSM Arena, PC World (2000), RIM.850 specifications at blackberry.com.

22 In Figure 5 "developing markets" is defined as countries in Africa, Asia (excluding Japan), Latin America, and the Middle East, "Smart Phones (entry)" is defined as entry-level phones. Data from Gartner (2009).

23 http://blogs.msdn.com/oneapp/archive/2009/08/24/microsoft-introducing-oneapp.aspx

24 Java is a computer programming language that can be used to develop software deployable across many computing platforms, including mobile phones at the low end up to supercomputers at the high end. http://en.wikipedia.org/wiki/Java_%28programming_language%29

Four uncertainties

Main Messages

We isolate four key uncertainties that will shape branchless banking over the next 10 years:

- Which entities regulators will allow to provide financial services, and under which conditions.
- Whether private sector providers will develop robust models for financial services beyond payments, and whether consumers will adopt them.
- Whether rising competition will spur more services, greater innovation, and lower prices.
- Whether and how large-scale failure(s) of branchless banking services will affect the confidence of consumers, other providers, and government.

We considered a large number of uncertainties before selecting four main ones.

Uncertainty 1. Who is allowed to play?

Regulators will make key decisions that will determine which entities can legally provide branchless banking services and also which business models are viable. Two of these decisions will be especially important:

- *Can financial service providers use agents for account opening and cash handling?* A recent CGAP survey of regulators in 139 countries reported that 40 percent of jurisdictions allow banking agents. But of those that do, only one-third permits agents to open bank accounts for customers, including conducting know your customer (KYC) checks (CGAP 2009). KYC regimes will affect the cost of acquiring new customers. In regimes in which agents are not allowed, branchless banking that relies on agents cannot take off at all.
- *Can nonbanks issue e-money?* Most countries today do not allow nonbanks to take savings deposits. This is unlikely to change, given the regulatory caution toward innovation that is part of the second force described above. However, there is increasingly a division between countries that make explicit provision for a new tier of regulated e-money issuers such as the European Union and, from March 2009, the Philippines and those that restrict e-money issuance to existing financial institutions only (e.g., South Africa and India). This issue has obvious significance for the entry by entities, such as MNOs, that often have stronger business cases for going down market with basic financial services than do conventional banks.

The extent to which regulators make more "access friendly" decisions will be determined by their degree of confidence about whether the risks of innovation are manageable. This will be shaped by experience of branchless banking businesses over time. The lobbying power of private sector actors may also affect the outcome. The loudest voices, traditionally banks for financial regulators, may lobby for being less open to new players and services to protect their franchises. At the same time, there is a growing constituency for financial inclusion in many countries that will also try to influence regulators to allow some forms of innovation, provided that these do not place the money of poor customers at risk. Finally, regulators rely heavily on the canon of regulatory solutions acceptable to their peers in other central banks. Increasingly, on issues like branchless banking, the leading edge of regulatory innovation is in developing countries, and central bankers are looking to south–south dialogue as an important part of shaping their decisions.

Uncertainty 2. How much will branchless banking go beyond payments into savings and other banking services for unserved people?

Branchless banking schemes to date largely have been built around payments and domestic remittance services. More than half of M-PESA customers use the service primarily for remote person-to-person payments; payments to businesses make up three quarters of transactions at Brazilian correspondents.

However, services beyond payments are already on offer and are used by low-income customers. In less than five years, Banco Azteca has opened 8.1 million deposit accounts and 8.3 million loan accounts and has sold 11 million insurance policies, largely to lower income Mexicans (Rhyne 2009). Likewise, in addition to basic banking and paying social transfers, FINO in India offers health insurance services.[25]

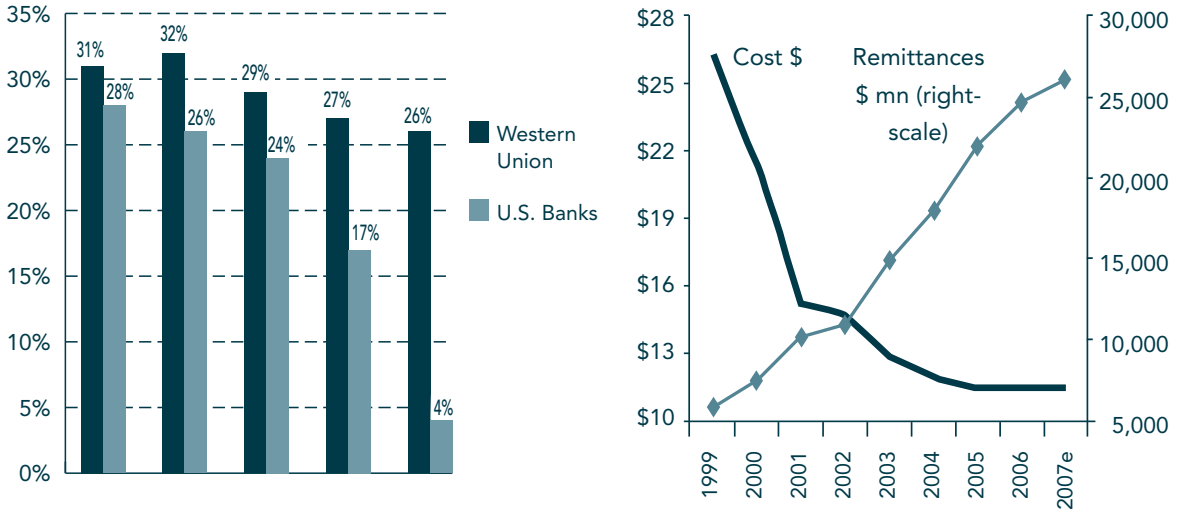
Even the payment-only models are being manipulated by customers to serve purposes beyond payments. For example, 21 percent of M-PESA users say they use the service to store money (FSD Kenya 2009b). And the demand for these services is strong. In the Philippines, when asked about additional uses of mobile banking, savings ranked as the most popular among the unbanked, with 53 percent of unbanked mobile money users saying they would consider trying a mobile-based savings service (Pickens forthcoming).

Conventional wisdom suggests that consumers climb a ladder of financial products that starts with payments such as remittances and airtime sales as the first rung. Using these creates the appetite for moving to the next rung—a bank account—and eventually further up to formal credit and insurance. There is ample evidence to support this expectation of increasing demand in the more traditional client–bank relationships with better off consumers. However, there is also reason to believe it is much weaker with branchless banking and the poor. For example, the experience of Mzansi—with just 11 percent of clients so far buying another financial product from their bank—suggests uptake of additional services is far from automatic (Bankable Frontier Associates 2009).

It is possible that the traditional paradigm around the bank account is changing. Whereas in developed countries banks offer a checking account as a loss-leading product because it is highly "sticky" enabling the sale of other profit-making services, this may not be true in developing countries.[26] In the prepaid services world (for electricity, water, as well as mobile) in which most poor consumers live, services are provided as part of a pay-per-use relationship between provider and consumer. Where there are multiple providers, there is high churn; this limits the ability to cross-sell, but also makes the cross-sell more important for the business case.

The ability to cross-sell will be determined in part by regulation. The ability of banks to intermediate deposits is almost universally denied to e-money issuers for example, denying them the credit margin. Few would argue against this restriction. But without this margin, business models for small savings will have to be highly cost efficient, therefore, given the economies of scale around IT platforms and networks, probably also very large scale. This factor will affect competitive dynamics.

Figure 6: Declining operating margins and prices for banks and remittance companies and consumers



Sources: Western Union (2008), FDIC, World Bank remittance prices database for U.S.-Mexico corridor

25 Interview with Manish Khera of FINO (2009).

26 Schäfer (2008) found that in the EU bank accounts were very sticky, with average churn rates of 7.6 percent and average ages of nearly 10 years.

Uncertainty 3. How will competition play out?

Competition for customers and agents is likely to grow as more entrants join the field. The germane question for this scenarios exercise is whether competition will spur more services, innovation, and lower margins and prices as it has in the past decade for banks and remittance companies (see Figure 6).

Early electronic and mobile business models (such as Google, PayPal, and even M-PESA) suggest success comes from leveraging scalable platforms and widely recognized brands. Early success can lock out competition. In sectors such as banking and communications, market structure is changing as a result of consolidation, even before the financial crisis exacerbated this trend in the banking sector of affected countries. Among MNOs, for example, the largest 20 groups today control more than 70 percent of subscribers.[27]

Greater scale of providers is not necessarily harmful. It can help reduce costs, which can advance financial inclusion if these savings are passed onto clients. However, scale in itself may bring greater operational risk. For example, fewer independent payment platforms may mean greater risks when one malfunctions or collapses.

Further, scale has implications for continuing innovation in branchless banking. Comfortable incumbents are unlikely to be the source of innovation in their own market. They may also grow big enough to crowd out potential competitors, particularly in smaller markets where a big early lead in market share could appear insurmountable. This situation may lead new entrants eventually to seek out new pools of unserved customers or financial needs not met by providers who are already established in the market. It may also lead to greater calls for interoperability. Shared IT platforms and infrastructure may enable smaller providers with niche business models to start up and function on the front end, sharing access to existing infrastructure.

However, in all but a few markets, an increasing number of players will offer branchless channels because of the combination of market opportunities and pressures created by the forces listed earlier, such as market potential and the rising use of data phones. Uncertainties such as who is allowed to play will shape just how contestable the financial services market of the future will be.

Uncertainty 4. How would the failure of a large branchless banking model affect market confidence?

As is common with other new services, customer, provider, and regulator confidence in branchless channels is still fragile. A high-profile failure could diminish the trust of consumers to adopt, the appetite of industry to enter, and the openness of regulators to enable. Consumers, even poor consumers, appear willing to make the transition to using electronic channels as long as they trust the provider. Trust in the brand of the ultimate provider may be sufficient. Users of branchless banking may not even have to trust the agents (Moracynski 2007).

As a side effect of pervasive communications, news and rumors spread faster than ever. A 21st century bank run could happen in hours instead of days as customers learn of problems and move their money electronically. Recently, the Kenyan news reported the effects even of a short-term disruption of the M-PESA service: "A technical hitch in the M-PESA money transfer service caused anxious customers to crowd at service outlets to have their accounts updated…. Customers had initially been barred from accessing the premises on safety fears after their demands for an up-to-date reflection of their accounts got boisterous. Several administration police officers were deployed to the centre to boost the efforts of private guards in calming the angry crowd" (*Business Daily* 4 August 2009).

As branchless banking schemes scale up, the potential ripple effects of failure grow, too. Nonbank e-money models, such as M-PESA, depend on aggregating wholesale deposits within the banking system. In this sense, they redistribute liquidity within the economy—taking thousands or millions of small balances and consolidating them into one or a few large deposits at banks. This aggregation process may increase liquidity risk for the wholesale bank, which is more vulnerable to the movement

27 CGAP/DFID analysis using operator-reported figures collected at http://en.wikipedia.org/wiki/List_of_mobile_network_operators.

of a large wholesale deposit account. Hence, even failures of nonbank-based models can spill over to the banking system.

Because branchless banking is relatively new, we have yet to witness the effects of a major failure on domestic users, firms, and regulators. In the field of mobile banking, the closest example of this may be the failure of SK Telecom's Moneta Cash service in South Korea in 2002 (Mas and Rotman 2008). Notwithstanding this early high-profile failure, South Korean consumers remain, along with the Japanese, among the foremost adopters of mobile banking channels worldwide, indicating that consumer confidence can recover.

Apart from these four major uncertainties, we also acknowledge the possibility of low-probability, high-impact events—wildcards or "black swans"—such as the following:

- *War.* If a global conflict were to erupt, it would likely be fought in part in cyberspace by disrupting telecommunications infrastructure, banking systems, and even governments. On the positive side for branchless banking, some have proposed the need for "expeditionary banking" to provide rapid rollout of payment systems in post-conflict societies to deliver humanitarian aid, kick-start commerce, and enable government payments (Kunkel 2008).
- *Pandemics.* Global pandemics may accelerate the need for remote payment systems to avoid face-to-face contact during shutdown periods. The systems would need to be considered essential infrastructure if they are to continue to operate during a health crisis.
- *Can a society eliminate cash by 2020?* The ability to place cash close to consumers in many distributed service points (agents) is a defining feature of branchless banking. But what if one or more governments succeeded in banning cash and substituting a fully electronic currency? The Maldives hopes to reduce cash, Nordic countries have banned checks, and Singapore hopes to substitute a fully electronic currency for paper notes in the near future, though its experience illustrates that challenges to going cashless are still quite strong (see Box 2).

Four Scenarios for Branchless Banking in 2020

Scenarios do not predict the future, but rather illustrate plausible stories arising from the often complex interaction of multiple forces and uncertainties over time. The outcomes may be expected or unexpected, but the act of storytelling reveals the hinge points along the path that may be open to influence. Readers can use these stories to test the robustness of their own strategies. We have developed four scenarios to illustrate different trajectories and outcomes from the present until 2020.

Scenario 1. Bharatia: New generation linkages for traditional microfinance?

Main Messages

Told in part by a customer, this scenario describes how a start-up firm—Bharatia Services Limited (BSL)—is forced to look for an untapped opportunity because competition for agents as bill pay points has increased commissions and reduced the viability of traditional branchless payment services. Following extensive market research, BSL develops a more flexible loan and savings offering for self-help group (SHG) members who, later this decade, have easy access to cell phones. We enter the story just as BSL is realizing the value of the opportunity it has uncovered.

"The self-help group[28] is very important to me," Madhu says to the moderator of the focus group. "Yes, I was a member before and quit. But I came back last year because the loans and savings are so flexible now. I can't say I really understand how the accounting system works over Priya's mobile phone, but the results are very, very good."

Ashok Bose looked on through the one-way mirror at the women in the interview room where the focus group was meeting. This was the fourth session he had attended today in his role as vice president of strategy for BSL. "Yes," he thought, "we are really onto something here. And our competitors don't even know it!" The four sessions had brought growing certainty that BSL's mobile-delivered accounting

28 An SHG is a member-based financial intermediary usually comprised of 10–15 local women. Savings contributions from the members are aggregated until there is enough to offer group lending.

system—M-COUNT—was a hit with SHG members. Although he was familiar with the raw numbers of loans to group members and deposits into mutual funds, the focus groups revealed what was really going on. Ashok turned his attention back to the women in the interview room.

"So what was it like before M-COUNT?" the moderator asked the women. Madhu piped up again.

"Oh, it was so strict, so rigid. I could get a loan of only a certain size, on a set interest rate, and always for the same length of time. It was the system. And if I wanted to get out of the group, I was told I had to wait until the end of the cycle when everyone got their money back. It was too hard for us to do all the calculations. So we followed one way of running the group. Almost like a religion!"

"And now?" asked the interviewer.

"Oh, it is so different now," said Madhu. Other women nodded their heads enthusiastically. "We enter the information about what repayments and deposits each group member makes, what new loans people want to take, and just like that, the phone tells us what interest rate to charge, the length of the loan. Our group leader, Maya, says the phone is talking to a computer in Hyerani. I don't really understand, but it seems to work and we now get the kind of loan we want. The phone also offers us options on what to do with our savings. Maya has all hers in something called a mutoo fund."

"Do you mean mutual fund?" intervened the moderator.

"Well, it's something like that. But she says it's safe. She's made a lot of money. I will wait to see how it goes for her. If she doesn't lose it, I'll put some into this mutual fund, too."

On the other side of the mirror, Ashok mused, "The big thing we've done here is create flexibility." SHGs have been around for eons, largely because they are so simple. They are typically relatively easy to run, with transactions recorded in a small notebook with a pencil. But the price of simplicity is extreme limits. There is usually one kind of loan, one kind of savings. What's more, all the financial history these women were building is trapped in the notebook. "Yes, we have brought the SHGs from the 19th century straight into the 21st," he thought.

The technology was actually the easy part. Designing the M-COUNT platform was relatively cheap—even with more flexible terms for loans and the link to a basic choice of mutual funds, what SHGs did was pretty simple compared to any bank. And the market research BSL did in 2015 showed that in a lot of SHGs, at least one member had access to a mobile phone. No, the hard part had been first convincing his CEO that BSL should even look at SHGs.

Ashok remembered the dinner with his CEO last June. "We can make a lot of money, Vijay, if we can link to the SHGs. You know there are 35 million members right now." His CEO raised the objection that others had tried direct lending to SHGs before, with some success, and others had also tried to automate SHG operations through POS devices. Wasn't this already tried? Besides, the real play was in agents processing bill payments. That had taken off in a huge way since the central bank liberalized the rules around allowing merchants to serve as agents.

"No, Vijay. The bill pay space is saturated," Ashok said to his boss. "The banks and their network managers are now competing for agents in the cities, stealing them from one another with higher commissions. The cost of being in that game is going to keep going up. The place to be is in the countryside, and with something that earns a lot higher margins—loans and investments. If I can get even one-tenth of SHG members, those 3 million loans will make us one of the biggest single players in microfinance in Bharatia."

"So how do we do this?" the CEO had asked.

Ashok jumped in, "I've been thinking the way to do this is simply to give them a better accounting system, and then we soak up the demand for bigger, longer loans that so far has been unserviced, by funneling in new capital from a bank. At first, we'll probably have to agree to take a share of any loan losses, but I bet we can create electronic credit histories on these women pretty quickly. Let's also connect to a mutual fund adviser to run a pooled investment on behalf of the SHG members."

Now, six months later, the pilot was going well. Very well. Something drew Ashok's attention back to the interview room.

"The women in the next village came over last week asking us how they also could get M-COUNT," said Madhu. "They heard about it from us."

"Wow. This is going viral," thought Ashok.

Scenario 2. Telmar: Leapfrogging to scale in a small, marginal market in the Pacific?

Main Messages

Even small, post-conflict countries should not be overlooked in their potential for branchless banking. In the Telmar scenario alignment of the government, international donors, and the private sector leads to banking the poor using branchless channels. In this case, two large traditional service providers (a bank and an MNO) are offered incentives to form joint ventures on a regional basis to reach places where they would not go alone. They successfully bid to offer government payments to citizens on a widespread basis. However, the management of a complicated partnership between the bank and the MNO also brings challenges. In the end, openness of the regulators ultimately leads to ongoing innovation that endures, such that formal financial inclusion becomes widespread.

Dateline: 16–22 August 2020, Telmar

Few outsiders would suspect that a small, post-conflict island nation like Telmar has a vibrant and inclusive financial sector. Yet that is exactly what your correspondent found on a recent visit to the capital, Moya, and the surrounding countryside. The MNO Surfcel's banking agents offering its FastPay service seem to be on every corner here. Stores are filled with customers wanting to make transactions on the simple phones in their pockets. "Why would I pay for the bus to take me to the bank branch 10 km away when it will be closed already?" asked a woman waiting in line. She had just closed up her market stall and wanted to deposit her earnings from the day into her account.

This transformation in Telmar did not happen overnight. While the 2008 global financial crisis may seem like a distant memory, in many ways it was the catalyst for financial inclusion in Telmar. In early 2010, partly in response to the financial crisis, a new global financial access working group issued a statement calling on banks and MNOs in the Pacific to address the low levels of financial access in many of the poor Pacific island countries, in particular the post-conflict country of Telmar. "We knew that Telmar would be a perfect demonstration country in which to show governments, donors, and the private sector that banking the poor was the right thing to do," says Eduardo Vargas, then the Brazilian representative to the working group. "In particular, we targeted the two largest financial and communication providers in the region that had the capacity to deliver such services, Pacific Trust Bank (PTB) and Surfcel, respectively."

Surfcel CEO Anderson Machen described his initial reaction to the working group's proposition. "I thought they were crazy. Why would I want to enter a small, volatile, and poor market like Telmar? My team and I spent hours crunching the numbers, and we could not find a way to make a profit from the venture." PTB management felt the same way.

But in late 2010 three things changed the proposition for PTB and Surfcel.

First, the working group decided to work with PTB and Surfcel to roll out branchless banking schemes in the entire Pacific region, not just on the island of Telmar. By having a regional focus and thus a broader customer base to tap into, the bank and MNO were suddenly much more interested. The working group also committed to providing the necessary support to work successfully with each country's regulators to make such a rollout a reality.

Second, the Telmar government announced a concession that would award one company or consortium of companies the opportunity to deliver all of the social transfers, such as to war veterans and displaced people, which at that time reached approximately 200,000 out of 1 million Telmar citizens.

Third, an international donor agency responded to the working group call by announcing its own Global Fund for Branchless Banking to support the provider that would ultimately receive the Telmar government

concession for government-to-person (G2P) payments to offer more inclusive products. After the tender process ran its course, the government awarded the concession to PTB and Surfcel.

By January 2012, PTB and Surfcel were finally ready to begin delivering G2P payments through Surfcel's FastPay service, which linked to a simplified savings account with PTB. The process had taken longer than expected, because the project team comprised of PTB and Surfcel officials had found it very hard at first to work together—"those telco guys just spoke another language—they thought that payments were as easy as phone calls. We bankers had to teach them a thing or two," one anonymous source said.

Notwithstanding the delays, which led to threats to cancel the contract, the outcome pleased the Telmar government. "We were thrilled with the immediate increase in efficiency this brought—less fraud—and the people liked it, too," said Lourdes Silva, head of the Social Protection Ministry of Telmar. Following the regional proposition presented by the working group, PTB and Surfcel also began similar mobile banking services in the surrounding island countries of Baki, Waponi, Erusea, and Tanah Masa, serving a market of 2.2 million potential customers.

After attending a conference for regional regulators in March 2015, the governor of the Central Bank of Telmar made a significant change in regulation that allowed nonbanks to issue e-money accounts. In terms of this new regulation in Telmar, Surfcel was able to make an even larger splash in the market by offering an electronic wallet. Not only G2P recipients, but any Surfcel customer could now carry out person-to-person transactions via his or her mobile phone. This service had huge appeal to the growing youth population in Telmar. "How great is it to have a way to easily send money to my girlfriend in Moya essentially from my pocket!" says the young man your correspondent cornered in an agent outlet. Given the continued concern over crime and security in this fragile post-conflict country, people were also eager to carry less cash.

But as PTB CEO Michael Keppling notes, the bank was not particularly happy with this turn of events. "We felt like, after helping to get the show on the road, we at PTB were now being pushed out of serving a segment of the unbanked population." After much negotiation, Surfcel finally agreed to link its electronic wallet to a bank account serviced by PTB so that clients could transfer funds in and out. "Don't underestimate the level of effort it takes to make a partnership properly function between a bank and an MNO in branchless banking," advises Keppling. "It is a tricky business." Yet despite this bump in the road, the number of customers reached with some sort of branchless banking service in Telmar increased to 325,000 within the next three years.

In 2018, in consort with other regional regulators, the Central Bank issued another amendment to regulation, allowing agents to open accounts for customers on behalf of banks. "We were relieved since this new regulation clearly played to our advantage, making it easier for PTB and Surfcel agents to open PTB bank accounts through which customers could transact using Surfcel's FastPay service," explains Keppling.

And so you have it. The number of customers has today reached 400,000. Telmar has made considerable progress toward financial inclusion for its population. "It's really amazing the progress that has been made over the last decade in terms of financial inclusion. I am confident in saying today that branchless banking has a bright future in Telmar," says Silva. Your correspondent readily agrees.

Scenario 3. Ballooning branches and data-enabled phones in Amazonia?

Main Messages

The story of Amazonia relates how even a successful branchless banking regime may be vulnerable to disruption. Seen through the eyes of a large state-owned bank, Banco Federal, a court decision makes branchless channels much less attractive and creates perverse incentives to build new branches and find new services for agents to offer, such as credit, to compensate for lower profits on transactional business. However, underlying forces, including crime and the cost of moving cash, make these branch-intensive strategies unviable. At the same time, the spread of data phones enables new competitors to eat into market share, especially among young consumers.

Roberto Barbosa began sweating as the minister of Finance grilled him about the performance of his bank. The head of the state-owned Banco

Federal had been under fire recently due to his increasing costs and the apparent lack of results. In the past two years the bank had lost large sums, requiring a sizable injection of new capital from the government. Even more important, the bank had lost over 600,000 customers.

"Why do we continue to fund your operation?" Minister Lupi inquired. "Over the past eight years we have invested over $350 million in building new branches and ATMs—which you said was the only way to reach our Financial Inclusion Initiative goals. But what have we gotten for it? Even *fewer* customers?"

Barbosa knew this was unfair. The minister was blaming him for things that were out of his control. "We still have the most customers in the country, and we can still break even. After all, we now have our own branches and ATMs in almost all of our 6,000 municipalities. We still service all the government's social transfer programs. The $350 million has been spent on more than just branches and ATMs. Please remember, Minister, once the court decision of 2011 made our agent business unprofitable, we had to increase their compensation to maintain our ability to pay the Citizen Grant to all eligible people within the national norms."

The court decision was a sore point for Barbosa. When the judge gave in to labor union pressure, the ruling had essentially mandated higher minimum pay for front line staff of nonbank agents, such as small retail shops performing banking functions, from $200 to $800 per month. Agents demanded higher compensation, but Banco Federal's already tight margins meant that Barbosa could not compensate them enough to make up for the increased costs. Over 20,000 of the smaller agent locations closed within six months, leaving nearly a quarter of municipalities in the country without access to the bank. In response, Barbosa had launched an aggressive building program, founding 1,000 new branches and locating still more ATMs, which brought banking back to the people. He had enjoyed a period of favorable media coverage as "The People's Banker."

No longer. "But you're losing customers, Mr. Barbosa. How can you invest $350 million to lose customers?"

"Those costs are necessary, Minister," Barbosa retorted. "You know how bad crime is. Getting cash to our outer branches and ATMs has become more expensive than we anticipated because of the cost of security. The bank surely can't be blamed for 'wasting' money on crime prevention, can it?"

"It isn't the crime prevention I'm worried about, Mr. Barbosa—it's the credit problems you've created. In three years, you grew your lending by almost 50 percent, most of that in loans made by agents to workfare recipients who are guaranteed a minimum number of days of work per year. Didn't you learn anything from the Americans about the consequences of mortgage brokers making loans to people who can't pay them back?"

The minister seemed to be making things personal. In reality, Barbosa had no choice but to issue the loans, or he would have faced the loss of even more agents.

"After the court decision, our agents needed extra revenues to pay their staff, and we all agreed that credit was the way to do this—not to mention the expectations of the clients who re-elected this government back in 2015." The last sentence was tinged with some asperity—just how did the minister think he got elected?

"That was shortsighted to say the least, Mr. Barbosa, and it's not true that yours is the only solution out there," the minister said. "PeerPay seems to be doing very well. They are stealing your customers and making money at the same time."

Barbosa knew this was coming, but it still annoyed him that the minister reveled in his competitor's success. In 2015 when the Central Bank began allowing nonbanks to issue e-money, PeerPay, an electronic commerce business that allows payments to be made through electronic alternatives, such as the Internet, entered the Amazonian market. It began by allowing small merchants to accept other banks credit cards without a POS device. As the number of data-enabled phones grew to a critical mass, and consumers became comfortable with them, PeerPay started steadily cutting into Banco Federal's core market, mass consumer financial services. Its link with

social networking site Orput was a master stroke. It put PeerPay in front of everything young people did on the Internet. And young people were the very ones increasingly moving into the workforce.

"PeerPay has done well, yes, but they still do not offer our level of service. Their Mobile Student Account has attracted a lot of young people with its bells and whistles, but at the end of the day they have no branches as we do. They're lower cost but lower service, too."

"It doesn't seem lower service to me, Mr. Barbosa," the minister declared. "Even I use their service on my phone, and it works well enough for me—take a look." The Minister took out his Blackberry and activated the PeerPay application, noting, "I can transfer money to my daughter's account for her to buy books. Even her uncle and all of her friends on Orput can contribute to her college book fund savings account. And all of this for free—that doesn't seem like lower service to me. When I want cash, PeerPay's merchants seem happy enough to give cash back for free—why can't the bank do this?"

"Minister, if the bank had a global payment network and a huge user base like theirs, we could do that, too. PeerPay acquired merchants by giving them access to their network and allowing them to accept Visa and MasterCard. Because their touch points were deemed to be merchants, who acquired transactions, not agents who handled cash in terms of the old correspondent law, they did not fall under the old salary rules. So they were not affected by the court ruling. We simply can't subsidize those basic services to the extent that PeerPay can because their merchants are cheaper to them than our agents." Barbosa bristled at the minister's ignorant accusations. It was obvious that the end of the interview was in sight.

"Hasn't the government subsidized your services enough? That will be all, Mr. Barbosa."

"Thank you, Minister."

Scenario 4. MpayZ: Victims of success in the transition to less cash?

Main Messages

MpayZ is a successful mobile payment company with a strong agent network that is grappling to understand why its previously expanding agent network is now showing signs of shrinking. MpayZ had set the bar for good practices in branchless payments: good commission structures for agents, comprehensive market research, regular customer surveys, and strong branding. It had a strong and widespread agent network that provided services to highly satisfied MpayZ customers. Over time, more payment functionality was added to MpayZ's services, and as more and more customers began using these services, the need to convert into cash through the agent network slowly decreased, depressing agent commissions. Therefore, while MpayZ continues to see rising customer numbers and higher transaction volumes, the number of active agents has begun to decrease. MpayZ shifts from extensive growth to cultivating fewer agents with a broader range of high-quality services.

Nana Mbuga paged through the thick report prepared by her staff. Later that day, she would chair an Executive Committee meeting to discuss how MpayZ, the Kasanian mobile payment company she headed, should respond to the declining number of active cash-handling agents.

This alarming trend had been spotted only six months before. Until then, it had been concealed by the fact that the conventional agent indicator—the absolute number of registered agents—had started to decline only recently and at a moderate rate. But as her head of strategy pointed out, inactivity on the part of agents was a leading indicator of future terminations. If agents were not turning over more than the minimum level of 100 transactions per month, it hardly made business sense for them to maintain the float deposit required, let alone take the risks of handling cash. Before long they would be likely to cancel their agency agreement and request the cash back. The trend was alarming because MpayZ's success had been built on providing incentives to

and managing its agent network. It had always paid generous commission levels for agents to sign up new customers and to carry out cash-in and cash-out transactions. This type of responsiveness to agent needs meant that MpayZ's competitors had struggled to break into the Kasanian market, since it was hard to lure away MpayZ agents. This distribution advantage explained the company's early success with customer acquisition.

MpayZ's success was widely recognized beyond the African country of Kasania in which it first launched its service way back in 2008. Nana took pride in the fact that a sizeable majority of all customers remained active, transacting at least once every month. Since the early days, MpayZ had invested heavily in market research to understand the various segments of its client base, and customer satisfaction levels remained as high as they had been in the earliest research. It was no surprise then that MpayZ's brand was now one of the most valuable retail brands in Kasania.

The analysis now in front of Nana had been thorough. The file contained results of a large survey of agents, logs of complaints about agents from customers, and detailed transcripts of meetings with larger agents as part of the Kasanian Agents of MpayZ Association. There was also analysis of some eight years of data on trends and patterns: customer numbers had continued to rise although at a declining rate, and transactions volumes were rising. But then there was the worrying decline in active agent numbers from the peak in 2015.

In the summary of results from customer interviews, Nana noted that more and more customers reported using their balances to buy goods and services, which had been allowed by regulators back in 2012. Furthermore, a majority of customers were now loading their MpayZ accounts directly from bank accounts. They had increasingly used the functionality introduced in 2013 when an increasing number of banks began allowing customers to generate an automatic recharge of their MpayZ wallet from a linked bank account.

The report of a focus group discussion included the story of a small businessman called Dan who operated a motor repair shop. He found that his customers increasingly wanted to pay their bills using MpayZ. Indeed, he even encouraged this by offering small discounts, since then he did not have to worry about holding the cash in the garage until he could bank it. Equally, his five employees had been willing, even eager, to receive their wages weekly via MpayZ. They, too, apparently found an increasing number of merchants who would accept payment this way. Other survey evidence confirmed that these new smaller merchants typically had little interest in carrying more cash and serving as MpayZ agents themselves.

Of course! The pieces suddenly clicked together. MpayZ was experiencing the natural, but nonetheless unforeseen, consequence of its own success, and the innocent "victims" were cash-handling agents. The agent business proposition was based on recruiting more and more customers who would generate more and more cash-handling transactions, which would lead to fee income for the agent. But once the service had become pervasive and trusted, the need to actually convert to cash had started to decrease. Instead, electronic value was now circulating continuously in the system, as shown by the rising number of transactions per user. Even worse for agents, many of whom had been airtime sellers, more and more customers bought airtime directly from their MpayZ account, eliminating this important source of additional commission income to agents and diverting it to MpayZ .

Her next insight quickly followed. Once this tipping point had been reached, the decline in the number of agents would now be quite rapid. Less access to cash drove even more need for electronic transactions in what for MpayZ was an increasingly virtuous cycle. But this was not virtuous for the agents. So what should MpayZ do about this? Nana knew that, despite the rapid growth in number of customers, there were still many in Kasania who did not have the means of electronic payments. The transition to a cashless society was still a long way away. There seemed little point in accelerating the decline in agents further by squeezing their fees, for example. In fact, if the network declined too fast, the inconvenience factor could rise, providing an advantage to MpayZ competitors.

No, Nana concluded, the right strategy for MpayZ was in fact to ensure that there would remain a solid core of well located, secure agent outlets that offered good service. These businesses could be paid slightly higher fees than others to counteract the effect of the fall off in cash transactions. Fewer but larger,

well located, more secure outlets with better trained staff? This sounded to Nana like a new network of bank branches, just with more of them. "Is this really the net result of our eight-year journey?" Nana questioned, "to find we are bankers after all?"

Conclusion: Some answers to the driving question

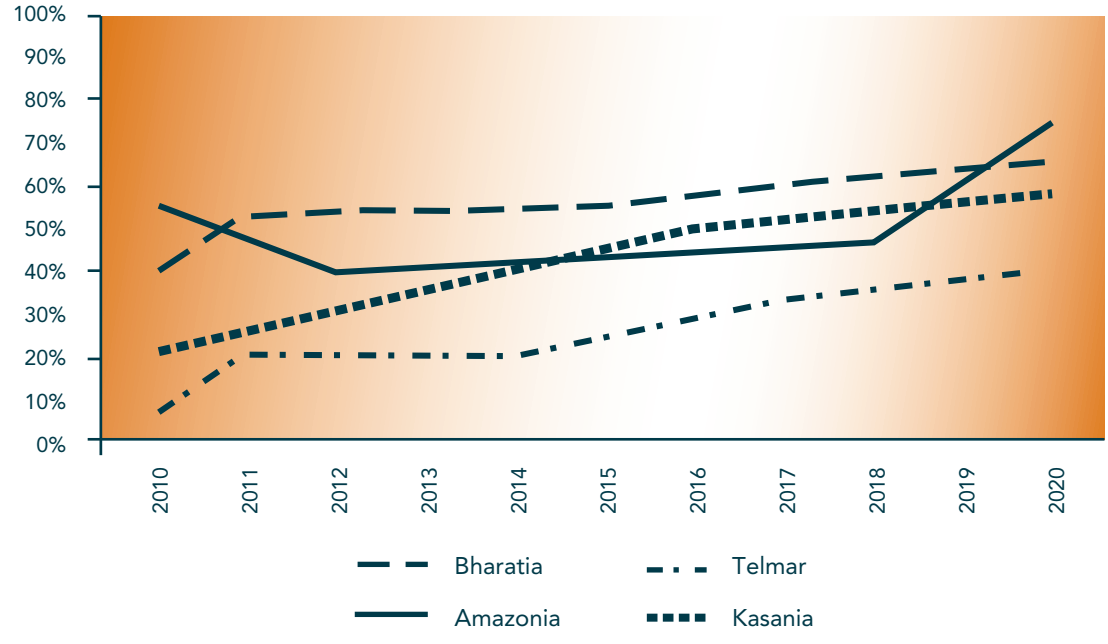
Each of the scenarios describes a different trajectory of development for four very different market contexts. Figure 7 depicts a headline indicator of financial inclusion (the percentage of adults formally included) in each of the countries—Bharatia, Telmar, Amazonia, and Kasania—described or implied in each story.

While the trajectories differ, in each case, the end point is higher than the starting point. This reflects our conclusion that the spread of branchless banking is all but certain in most markets. Under the right circumstances, this is even possible in small, post-conflict countries like Telmar. But the speed and depth of that spread—across countries and population segments, especially the unserved majority—is not certain. For example, Bharatia and Amazonia experienced bursts of rapid acceleration, but also periods of fall off or flatter growth. And only in Kasania did the market leader in 2010 remain at the top of the pile in 2020, buttressing its early dominance with ongoing concern for customers and agents. In each of the other markets, an unexpected player appeared on the scene (Bharatia Services Ltd., Surfcel, PeerPay). In fact, the comparative advantage in agents today of one provider (Banco Federal) was eroded in the face of new competitors (PeerPay) and decisions by government authorities. The baton of innovation may well be passed to new players over the coming decade.

Who picks up the baton will be determined to a large measure by the forces and uncertainties highlighted earlier in this paper. For example, who will be allowed to play in this new market? In Bharatia, the government revised its restrictions on who could serve as an agent. Telmar offered a concession for all government payments to make a small marginal market into an attractive one, though the decision by the bank and MNO to operate a regional platform was also critical to making the business case. The decision to allow nonbanks to issue e-money in Amazonia opened the door to an entirely new player—a multinational electronic commerce company riding the wave of mobile Internet later in the decade.

One similarity among the "winners" in each scenario was their success in identifying and tapping into a rich vein of underserved demand. Bharatia Services Ltd.'s story hinges on realizing the weaknesses in present models of how poor people access credit and savings

Figure 7: Trajectories of inclusion



and how technology could bring flexibility without destroying popular elements in the informal groups. PeerPay hitched itself to the surge in popularity of the Internet and demand for safe, convenient, and affordable ways to pay. And MpayZ kept abreast of the needs of its agents, treating them as a special kind of customer who had specific needs and interests.

We also pointed to factors that could depress the trajectory of usage by significantly reducing the attractiveness of new channels to providers and consumers. In Bharatia, competition for agents bid up the price of their services, squeezing profit margins of providers that depended on low-margin bill payments alone. This was a natural outcome of competition, and eventually led BSL to search for a new opportunity outside of this product space. The Amazonian court decision also squeezed the agent model, but from the agent side because of higher personnel costs. Without a clear and stable legal regime for the growth of channels, disruption is still possible even (or especially) when the channels reach large scale and threaten other interests. In Telmar, Surfcel and PTB's partnership went through troubled periods, due in part to a clash of cultures between the worlds of the MNO and the bank. One could easily imagine an alternate ending where the consortium fell apart, notwithstanding the incentives to make it work.

These scenarios enable us to return to where the scenario project started: seeking answers about how government and private sector can maximize the spread and depth of branchless banking among the unserved majority. While branchless banking channels will become increasingly available, the speed at which branchless banking reaches poorer customers and the breadth of services offered are subject to actions taken and decisions made by these two parties.

To inform these decisions, both government and private sector will benefit from gathering and closely tracking key information. Current information systems do not always capture all the right indicators for new business models, as in the case of MpayZ, or for measuring their impact on an economy. Better understanding the patterns of usage and the resulting impact from new services on the lives of unserved customers over time will inform better policy and business models. For example, customer complaints are an important data source both for regulators (to inform consumer protection measures) and for providers (to improve their service).

To be sure, while some of the information needs of government and private sector will overlap, others will be distinct and require different collection approaches. Few developing countries have yet measured the cost of cash relative to electronic instruments for different parties—consumers, merchants, banks—and for society as a whole. Central banks and academics in developed countries undertake these studies regularly.[29] While not easy to do when data are not readily available, this measure can be a key policy indicator as societies seek to promote electronic channels.

Providers will do well to set realistic expectations of their time horizon and potential return. The usage of new platforms can accelerate dramatically, but rapid takeoff may not be the norm. Even when this takeoff happens, adoption alone will not necessarily result in adequate financial return—consistent usage is necessary to generate revenues. Overcoming customer caution and resistance to change will take patience and experimentation. Business models that find ways to serve the youth market profitably may well achieve more rapid adoption. Models that depend on agents will thrive if they actively serve and cater to the agent channel, rather than treating it as a passive or inferior means of distribution. This is likely to require a multi-channel approach, which includes mobile Internet access in some form. And providers that build the competence to manage the risk of electronic fraud early on, not as a "nice to have" but a "need to have," will be more robust.

Governments have several tools at hand to promote wider and broader usage of branchless channels for financial services. Their activism can be channeled in ways that enhance opportunities for branchless channels to be deployed. First, as policy makers, they can shape their regulatory environment so as to enable experimentation in early stages and increase their control and oversight through different phases of market development. In each phase, providers

29 For example, financial authorities in the Netherlands, Norway, and Australia among others have researched the relative cost of cash in recent years, as have academics, such as Garcia-Swartz et al. (2006) in the United States.

will benefit from the certainty provided when policy makers carefully sequence their proportionate response to risks and opportunities. In all cases, there is a need to encourage providers with the intent and capability to sustain low-value, high-volume services over time. While banks continue to have an essential role, especially for taking savings and providing credit, nonbanks also have a range of vital roles. They can serve as hosts of payment platforms (e.g., MpayZ), providers of retail payment instruments (e.g., Surfcel), and managers of agent networks (e.g., Bharatia Services Ltd.). Regulators that seek to maximize outreach actively attempt to understand, engage, and even encourage these providers. Changing technology will continue to challenge regulatory boundaries and definitions, so regulators will do well to build the capacity to engage and maintain an active, experimental approach. Ongoing sharing with peer regulators about emerging experiences will help the learning process.

Allowing experimentation through no objection or specialized regulation can create add-on space for innovation. However, this openness will need to be consolidated into coherent law in a timely fashion. Otherwise, this creates a risk of Amazonian-style disruption. While branchless banking is about enabling new channels, it carries important implications for the regulatory approach to "old" channels such as branches. Bank branches remain a lynchpin in the overall distribution of cash in any economy and will still be needed in any branchless scenario, though how many and where may change over time. Regulators will need to be flexible in how they regulate traditional bank distribution channels, even as they enable branchless channels like agents.

In addition, governments can exert their procurement power to accelerate financial inclusion. As social protection schemes proliferate in response to ongoing needs and crisis situations, governments can coordinate better between departments or agencies responsible for social payments and those responsible for financial inclusion. Such coordination will require balancing the government's desire as paymaster to reduce the short-run cost of making payments, with the objectives of financial inclusion, which may justify higher payments in the short-run to cover the costs of issuing new instruments to unbanked recipients and creating the infrastructure to serve them.

Futurist William Gibson has said, "The future is already here. It's just unevenly distributed." This describes the state of branchless banking today. Today's pioneers in places like Brazil and Kenya, the Philippines and South Africa, provide clues to what the world of 2020 may look like. For the first time in history, it is conceivable that a majority of people in a majority of places, including low-income countries, will have access to modern electronic payment services. If this alone is the measure of financial inclusion, then we face the decade with optimism.

Wiring the electronic retail payment infrastructure is a worthwhile goal for the decade, but it is not sufficient. Microfinance was founded on the idea that the use of appropriate financial services, in particular, savings and credit, can transform the lives of unserved people and create pathways out of poverty. The fragile and narrow business models of early pioneers may well constrain the breadth of financial services on offer. And existing regulatory frameworks may not enable providers to expand beyond offering these services or allow other providers to access the new electronic payment highways.

Compared with the past decade, financial inclusion may face more "headwinds" in the next 10 years as a result of factors we have highlighted here. However, the increasing use of branchless channels will help lift the trajectory of inclusion. Critical decisions taken by governments and private sector players will determine how great that lift will be.

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