

# Mobile Payments Promise to Improve Financial Accessibility in Mexico

By Michael Perez

**ABSTRACT:** Mobile phone-based financial services and other new technologies may hold the key to converting more of Mexico’s “unbanked” residents, most of whom have traditionally operated outside the formal economy. Regulatory oversight of the new services is slowly evolving.

A majority of Mexican adults remain outside the country’s financial system. The proportion is greatest in rural areas, where 71 percent of those 15 and older lack access to formal financial services, far exceeding figures for Mexico’s Latin American peers. Mexico also trails in personal and business loan issuance, deposit rates and debit and credit card penetration (*Chart 1*).

An estimated 90 percent of transactions in Mexico are settled in cash, indicative of formal finance’s poor reach in the world’s 15th-largest economy.<sup>1</sup> A deep distrust of banks persists, which has contributed to low bank-account ownership, along with unstable employment prospects and a large informal economic sector operating outside government oversight and tax law.

The high fees and minimum balance requirements at Mexico’s com-

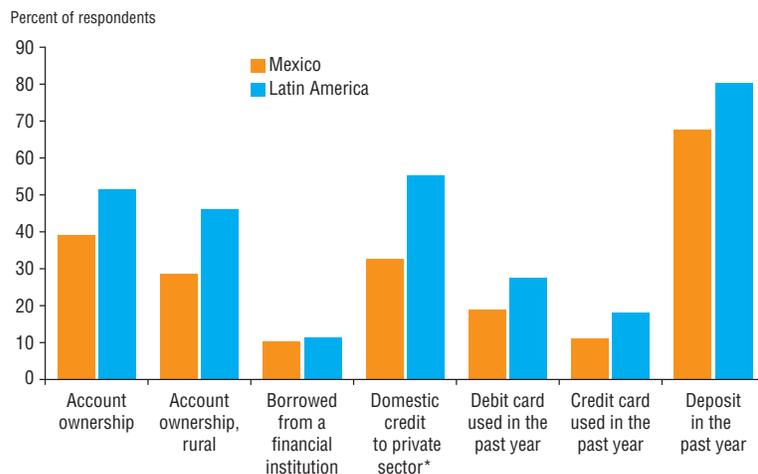
mercial banks contribute to the problem. The banks also have traditionally failed to address the payment needs of low-income, unbanked populations.

Consequently, many Mexicans form communal savings and lending arrangements, known as *tandas*, though these can be expensive and unreliable.<sup>2</sup> Inadequate financial consumer protection laws, frequent instances of payment fraud and low levels of financial literacy also persist.<sup>3</sup>

The economic and commercial consequences are considerable. The most affected—small businesses and poor households—often can’t take advantage of growth opportunities or absorb financial shocks.<sup>4</sup>

Accessible systems, via technologies such as mobile phone networks, could more widely make available savings, payment, credit and risk-management products, aiding growth and efficiency by narrowing financial in-

**Chart 1** | Financial Inclusion in Mexico Below Latin America Average



\*“Domestic credit” depicted as percent of gross domestic product.

NOTE: Countries in Latin America are Argentina, Belize, Bolivia, Brazil, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Peru and Venezuela.

SOURCES: World Bank Global Findex 2014; International Monetary Fund, International Financial Statistics and data files; World Bank and Organization for Economic Cooperation and Development gross domestic product estimates.

frastructure gaps.<sup>5</sup> Such improvements would boost credit supply and investor confidence, encouraging business formation while discouraging reliance on often costly and unreliable informal alternatives.<sup>6</sup>

### Mobile Remedy

Mexico's regulators are slowly progressing toward a more inclusive financial system. The country's banking and financial market regulator has endorsed the Maya Declaration, an initiative supported by 58 regulatory agencies around the world to encourage financial inclusion. Authorities had aimed to have a banking agent or branch in every Mexican municipality but failed to reach the goal by their original 2014 target date. Officials have since begun recalibrating objectives in light of technological advances.

Presently, there are 1,685 communities in Mexico with 10 or fewer banking access points per 10,000 people—a limited number of bank branches, ATMs and banking agents that can process client transactions.<sup>7</sup>

The Bank of National Savings and Financial Services, one of the nation's development banks, in 2011 recommitted to a program seeking to link rural residents to 36 formal financial institutions through technology, including mobile point-of-sale locations and mobile devices.<sup>8</sup> The Rural Microfinance Technical Assistance Program has served 245,000 rural clients and provided the equivalent of \$114 million in loans over the five-year period ended last March.<sup>9</sup>

President Enrique Peña Nieto unveiled a six-point National Financial Inclusion Strategy in June that seeks to further improve financial service access and education for the unbanked. Mexico's telecommunications infrastructure and technology are central to the effort, particularly the expansion of Mexico's mobile payment network.

Mobile payments are financial technologies that facilitate delivery of payments through mobile devices and networks (*see box*). They allow users to make proximate or remote purchases from retail points-of-sale and remit funds

## The Growing Role of Financial Technology

Financial technology is the use of online, mobile and information technologies to deliver financial services. Fintechs are companies or applications that compete with commercial banks and incumbent financial institutions by making financial services quicker, cheaper and easier to use.<sup>1</sup> They do so by using advanced data analytics, computing power and cloud-based systems that reduce banks' role in the financial services supply chain. Examples in the U.S. include online lenders like Lending Club, crowdfunding platforms such as Kickstarter, and payment applications like Google Wallet, PayPal and Apple Pay.

In the industrialized world, Fintechs owe their success to convenience. In Mexico, the sector caters to low-income individuals and small- and medium-sized enterprises—entities traditional banks have overlooked. Remittance technologies, for example, allow users to electronically send payments anywhere in the world. Mexico receives about \$25 billion in remittances annually, mostly from the U.S., particularly California and Texas.

However, traditional institutions confront high regulatory costs, largely due to anti-money-laundering measures. The average cost of sending \$500 between the two countries by traditional means is \$16.44.<sup>2</sup> However, the cost of an immediate \$500 transfer through applications such as Remitly and Xoom, which aren't subject to such regulatory costs, is \$3.99. For Mexicans working in the U.S., the applications lower costs and expedite the process of sending funds to family back home.

While the Fintech sector is still small, the high interconnectivity, diversity, anonymity and speed of these technologies make them cause for concern not only with regard to money laundering, but also law enforcement concerns more broadly. As a result, heightened government scrutiny, tighter regulation and increased security costs are likely in the near future. Fintech startups, lacking the resources to meet such compliance costs, could be particularly affected.

Mexico's regulatory authorities have yet to reveal plans for Fintech, though the finance ministry has indicated that a regulatory regime is in development.

### Notes

<sup>1</sup> See "The FinTech Opportunity," by Thomas Philippon, National Bureau of Economic Research, NBER Working Paper no. 22476, August 2016.

<sup>2</sup> See Remittance Prices Worldwide data, World Bank, <https://www.remittanceprices.worldbank.org>.

user-to-user. Typically, payments are funded via credit or debit cards, prepaid accounts, bank accounts or a charge to consumers' mobile phone bills.

Phones serve the dual purpose of securely storing users' methods of payment and transmitting funds digitally between them. Middlemen operating between users and enterprises receive small commissions for handling cash and electronic currency.

Mobile payments improve payments process efficiency by simultaneously lowering costs and increasing security. Because mobile payments are processed online through automated

systems, they require less manpower than paper checks and are usually deposited more quickly. At the same time, they use multifactor authentication and tokens, reducing the chances of fraud.

These payments reduce overall transaction time, particularly for customers in rural areas. Remote payment transfers previously required travel over long distances to designated locations such as bank branches, money transfer operators or government offices. Mobile money can be received and sent from a mobile device or dedicated cash-in/cash-out points in rural communities.<sup>10</sup>

More fundamentally, mobile payments cultivate financial inclusion and reduce reliance on informal arrangements. To that end, impoverished families taking part in *Prospera*, a government welfare program that provides mobile payments, rely less on *tandas*. Moreover, they are more likely to receive remittances and use their own savings to cope with financial stresses instead of taking out emergency loans or reducing consumption.<sup>11</sup>

Digital payments create opportunities for the unbanked to use automatic deposits, schedule text reminders and build emergency savings. Small “nudges,” such as text-message reminders to save, may push households toward formal finance and away from informal alternatives.<sup>12</sup> Over time, greater use of traditional banking products can strengthen the financial system by, for example, enabling credit scoring based on broader payment and income histories than were previously available.

Despite its promise, mobile money faces significant barriers. Finance and telecommunications sectors have different priorities and objectives, making large-scale mobile payments a tricky and expensive exercise. One immediate challenge is the physical infrastructure necessary to process digital transfers.

Mobile phone subscriptions in Mexico have hovered around 85 per 100 Mexican residents, and prices have decreased 42 percent since the signing of telecommunications reform in June 2013 (*Charts 2 and 3*). But the country’s service levels trail those of its Latin American peers. Even widespread mobile use by itself is an insufficient mobile banking catalyst.

Development of Mexico’s mobile payment infrastructure involves numerous parties broadening poorer households’ access to financial services, such as cash-in/cash-out points, and ensuring the ability of cash middlemen to maintain system liquidity. There are also significant challenges specific to rural areas. These include lack of electricity with which to power mobile phones and cell towers, limita-

tions in mobile network coverage, and poor roads and transport networks.<sup>13</sup>

Once the network is established, its security and reliability must be sustained. Payment delays or illiquidity in agent networks can weaken an electronic transfer program by diminishing consumer trust. A reliable payment system requires not only safeguards against fraud and cyberattacks, but also contingency plans to ensure operation in an emergency.

Financial education is another concern. Users must feel comfort-

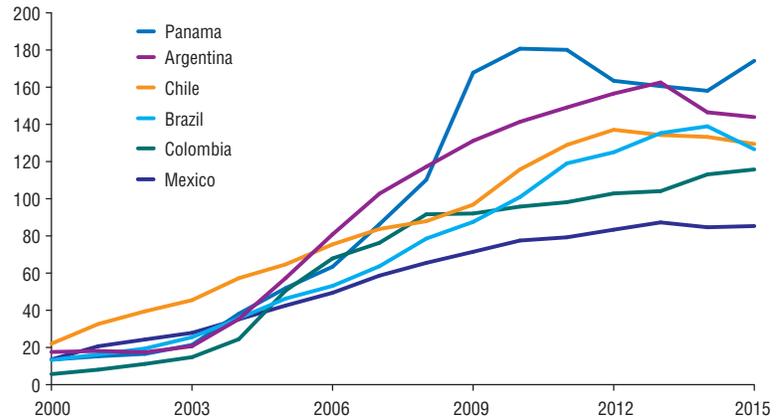
able and understand what recourse they have if something goes wrong. Understanding the basics of financial technology systems—PINs, cash-in/cash-out stations, ATMs and mobile applications—is important.<sup>14</sup>

### Regulatory Scope

Mexico’s government will have a significant role in mobile payment plan development. New regulations will need to balance innovation and consumer protection while also allowing the private sector room to create

**Chart 2** Mexico’s Mobile Subscriptions Rise, Still Lag Latin American Peers

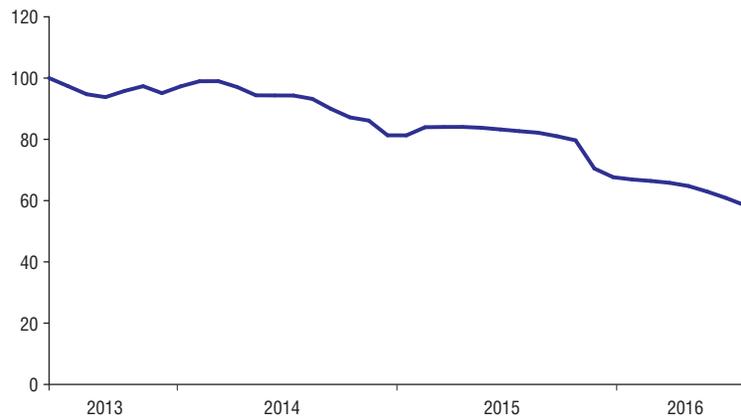
Mobile phone subscriptions per 100 people



SOURCE: International Telecommunication Union.

**Chart 3** Mexico’s Telecom Reform Reduces Cost of Service

Consumer price index—mobile phone service subcomponent index, June 2013 = 100

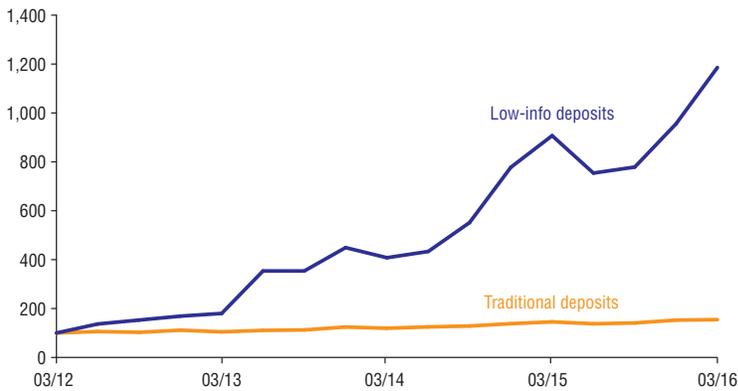


SOURCE: National Institute of Statistics and Geography (Instituto Nacional de Estadística y Geografía).

## Chart 4

### 'Know Your Customer' Rules Aid Account Deposit Growth

Index, March 2012 = 100



SOURCE: National Banking and Securities Commission.

new products. And government agencies will need to coordinate with one another, especially across complementary sectors such as financial services and telecommunications, to ensure system stability.

Particular attention must be paid to money-laundering and identity-theft rules. Mexican regulators in 2011 implemented progressive “know your customer” requirements governing customers opening accounts and documentation requirements. The rules apply to commercial banks, insurance companies, remittance services and foreign-exchange houses. The rules restrict the size of account balances, the cumulative value of transactions and/or the channels to access funds for “low-information clients”—those without the background information or documentation necessary to open a traditional, unrestricted account.

As client information accumulates, the restrictions become less stringent. Under the plan, the number of low-information, low-value, peso-denominated accounts have markedly grown, along with their balances (*Chart 4*). Furthermore, biometric identification improvements have helped overcome difficulties with PIN and password-authentication methods. Adoption of new technologies has helped ensure the validity and taken the anonymity out of mobile payments.

### Cash Preference

A large proportion of Mexico’s population remains unbanked, but recent trends suggest that private and public sector efforts to encourage mobile payment networks are helping the country improve financial inclusion.

Many challenges remain, particularly as regulators and developers of the new systems work to ensure their sustainability and overcome a preference among the unbanked for traditional cash payments.

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### Notes

<sup>1</sup> See “Cash Outlook: Mexico,” by Elisabeth Burgess et al., IBGC Working Paper no. 13-02, The Fletcher School, Tufts University, September 2013.

<sup>2</sup> See “Social Service Delivery and Access to Financial Innovation: The Impact of Oportunidades’ Electronic Payment System in Mexico,” by Serena Masino and Miguel Niño-Zarazúa, United Nations University, UNU-WIDER Working Paper 2014/034, 2014.

<sup>3</sup> See note 1.

<sup>4</sup> See “Measuring Financial Inclusion: Explaining Variation in Use of Financial Services Across and Within Countries,” by Asli Demirgüç-Kunt and Leora Klapper, Brookings Papers on Economic Activity, Spring 2013.

<sup>5</sup> See “ICT, Financial Inclusion, and Growth: Evidence from African Countries,” by Mihasonirina Andrianaivo and Kangni Kpodar, International Monetary Fund, Working Paper no. 11/73, April 2011.

<sup>6</sup> See “A Study on the Effect of Financial Inclusion on the Relationship Between Income Inequality and Economic Growth,” by Jong-Hee Kim, *Emerging Markets Finance and Trade*, vol. 52, no. 2, 2016, pp. 498–512.

<sup>7</sup> See “The Maya Declaration: Celebrating Five Years of Advancing Global Financial Inclusion,” Alliance for Financial Inclusion, [www.afi-global.org/sites/default/files/publications/2016-08/2016%20Maya%20Progress%20Report-2.pdf](http://www.afi-global.org/sites/default/files/publications/2016-08/2016%20Maya%20Progress%20Report-2.pdf).

<sup>8</sup> Mexico’s development banks are publicly owned institutions that serve economic sectors not normally reached by commercial banks. They are required to promote economic development in their areas of specialization, which include small and medium-sized enterprises, low-income households and housing development.

<sup>9</sup> See “PATMIR III,” World Council of Credit Unions, [www.woccu.org.mx/esp/index\\_esp.php?id\\_menu=22](http://www.woccu.org.mx/esp/index_esp.php?id_menu=22).

<sup>10</sup> See “Payment Mechanisms and Anti-Poverty Programs: Evidence from a Mobile Money Cash Transfer Experiment in Niger,” by Jenny C. Aker, Rachid Boumniel, Amanda McClelland and Niall Tierney, Tufts University Working Paper, August 2014.

<sup>11</sup> See note 2.

<sup>12</sup> See “Getting to the Top of Mind: How Reminders Increase Saving,” by Dean Karlan, Margaret McConnell, Sendhil Mullainathan and Jonathan Zinman, National Bureau of Economic Research, NBER Working Paper no. 16205, updated Oct. 28, 2014.

<sup>13</sup> See “The Opportunities of Digitizing Payments,” by World Bank, Better Than Cash Alliance and the Bill and Melinda Gates Foundation, Aug. 28, 2014.

<sup>14</sup> See “Working with The Poorest Women in Pakistan,” by Harry West and Rachel Lehrer, Consultive Group to Assist the Poor, Jan. 16, 2014.