### THE 2017 BROOKINGS FINANCIAL AND DIGITAL INCLUSION PROJECT REPORT

Building a Secure and Inclusive Global Financial Ecosystem

BY ROBIN J. LEWIS, JOHN D. VILLASENOR, AND DARRELL M. WEST



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Comments and feedback regarding the Financial and Digital Inclusion Project can be submitted to FDIPcomments@brookings.edu.

### TABLE OF CONTENTS

EXECUTIVE SUMMARY	2
INTRODUCTION	4
Review of 2015 and 2016 Findings	4
KEY FINDINGS FOR 2017	6
Country commitment	7
Mobile capacity	8
Regulatory environment	8
KEY TRENDS AND CALLS TO ACTION	10
COUNTRY PROFILES	
AFGHANISTAN	14
BANGLADESH	15
BRAZIL CHILE	16 17
COLOMBIA	17
DOMINICAN REPUBLIC	19
EGYPT	20
EL SALVADOR	21
ETHIOPIA	22
HAITI	23
INDIA	24
	25
KENYA MALAWI	27 28
MALAWI. MEXICO.	20
NIGERIA	30
PAKISTAN	32
PERU	34
PHILIPPINES	35
RWANDA	37
	38
TANZANIA TURKEY	40 41
UGANDA	41
VIETNAM	43
ZAMBIA	44
METHODOLOGY	45
Research process	45
Scoring descriptions	45
APPENDIX: SCORING CHANGES	52
ENDNOTES	53
ACKNOWLEDGMENTS	64
ABOUT THE AUTHORS	66

### EXECUTIVE SUMMARY

Since the summer of 2014, the Brookings Financial and Digital Inclusion Project (FDIP) has examined efforts across a diverse array of countries to advance access to and usage of secure, affordable, formal financial services among underserved populations. As part of its aim to provide policymakers, private sector entities, representatives of nongovernmental organizations, and the public with information that can help improve financial inclusion in their respective countries and beyond, the FDIP team has produced an annual report that evaluates countries' progress toward financial inclusion.

The first annual FDIP report, published in August 2015, examined financial inclusion developments in 21 geographically, politically, and economically diverse countries. The report featured a scorecard that assessed each of the FDIP countries across four "dimensions" of financial inclusion: country commitment, mobile capacity, regulatory environment, and the adoption of traditional and digital financial services. The report's findings emphasized the importance of developing formal commitments to financial inclusion; engaging both public and private sector stakeholders in a national financial inclusion dialogue; and promoting the availability and adoption of appropriate digital financial services among underserved groups through enabling regulation and innovative design.<sup>1</sup>

The second annual FDIP report, published in August 2016, featured the addition of five new countries: the Dominican Republic, El Salvador, Egypt, Haiti, and Vietnam. These countries were added to the FDIP sample in order to broaden the geographic scope of the focus countries and reflect feedback from members of the international financial inclusion community regarding countries that might warrant further examination. The report also enhanced several scorecard metrics in order to address stakeholder input regarding thematic areas that might merit greater focus, such as consumer protection.

That report demonstrated continuing progress on global financial inclusion regarding the development of national financial inclusion strategies and advancements toward mobile money platform interoperability. In it, we also identified several priority action areas for public sector, private sector, and civil society stakeholders aiming to augment financial inclusion: 1) Establishing and achieving specific, measurable financial inclusion targets; 2) Promoting more comprehensive data collection and analysis regarding financial access and usage, particularly among traditionally underserved groups such as women; 3) Advancing regulatory efforts designed to facilitate financial inclusion; and 4) Enhancing financial capability among customers in order to promote sustainable financial inclusion.<sup>2</sup>

The new annual FDIP report, published in August 2017, highlights selected financial inclusion-related updates for each of the 26 countries featured in last year's report and identifies possible next steps for advancing financial inclusion. It identifies three key overall findings, based upon trends observed across the international financial inclusion landscape throughout the course of the FDIP lifecycle: 1) There has been growth in national-level recognition among the FDIP countries that financial inclusion is a key ingredient for sustainable development; 2) "Fintech," the intersection of technological innovation and the financial sector, possesses tremendous potential to accelerate progress toward financial inclusion; and 3) Countries must amplify investments in cybersecurity efforts and knowledge-sharing in order to fully reap the benefits of financial services innovation.

### For each of these three key findings, the FDIP team has identified several action steps that we believe will help to further advance financial inclusion.

First, while countries have increasingly recognized that advancing access to and usage of affordable, secure formal financial services can contribute to their development objectives, there are a number of steps that would bring this closer to reality:

- As discussed in the 2015 FDIP report, national-level financial inclusion entities should set specific, measurable targets related to financial inclusion progress. For example, countries can enshrine these targets in their national financial inclusion strategies and/or submit them to entities such as the Alliance for Financial Inclusion as part of their Maya Declaration targets.
- National-level financial inclusion entities should establish specific financial consumer protection guidelines and coordinate with financial service providers and civil society entities to determine how to ensure customers understand the terms of financial products and services available to them, as well as relevant redress mechanisms.
- Where possible, regulators and policymakers should consistently provide updated, detailed data on progress toward their financial inclusion objectives within a publicly available platform in order to facilitate greater transparency, accountability, and knowledge-sharing.
- Financial inclusion stakeholders such as financial service providers and civil society entities should collaborate closely with government entities both domestically and internationally to share their various perspectives on financial inclusion pathways and challenges. This dialogue will enable countries to identify promising financial inclusion-related interventions and share key learnings regarding best practices for advancing access to and usage of quality, affordable financial services.

Second, while fintech can help enhance the accessibility and utility of financial services for customers and render the deployment of these services more cost-effective for providers, there are a number of opportunities to maximize the benefits and avoid the potential pitfalls of fintech:

- Traditional financial institutions and fintech entities should coordinate closely in order to leverage the strengths of each sector, such as robust infrastructure and technological expertise.
- Policymakers and regulators should consider establishing regulatory "sandboxes" for fintech entities to explore various opportunities for innovation within a supportive and clear regulatory environment.
- Policymakers, regulators, financial service providers, fintech startups, and any other entities that utilize fintech should invest in cybersecurity assessments and risk management training to improve the integrity of their services and enhance consumer confidence in the formal financial sector.
- Policymakers and regulators should develop or strengthen targeted financial consumer protection frameworks and related initiatives to help ensure that robust consumer protections are in place.

Third, given the increasing prevalence of digital financial services and the considerable diversity of players involved in the financial services sector, the issue of cybersecurity merits greater attention and action from the financial inclusion community:

- Policymakers and regulators, fintech firms, civil society entities with financial inclusion expertise, and traditional financial institutions such as banks should amplify discussions surrounding cybersecurity in order to facilitate technical assistance and identify best practices.
- Regulators and policymakers should consider the use cases and technologies involved when developing appropriate cybersecurity guidance and solutions.
- Financial service providers must take steps to ensure that the development of innovative products is coupled with stringent testing and monitoring.
- Financial service providers and entities that house financial data should invest in bolstering the security of outdated or centralized systems in order to protect the integrity of the financial ecosystem.

### INTRODUCTION

### Review of 2015 and 2016 Findings

he objective of the Brookings Financial and Digital Inclusion Project (FDIP), which began in the summer of 2014, is to provide policymakers, private sector entities, representatives of nongovernmental organizations, and the public with information that can help improve financial inclusion in their respective countries and beyond. To that end, the FDIP team produces an annual report and scorecard that evaluate countries' commitment to and progress toward financial inclusion.

The objective of the Brookings Financial and Digital Inclusion Project (FDIP), which began in the summer of 2014, is to provide policymakers, private sector entities, representatives of nongovernmental organizations, and the public with information that can help improve financial inclusion in their respective countries and beyond.

The first annual FDIP report and scorecard, published in August 2015, examined key questions surrounding ways to advance financial inclusion, including 1) Do country commitments make a difference in progress toward financial inclusion?; 2) To what extent do mobile and other digital technologies advance financial inclusion?; and 3) What legal, policy, and regulatory approaches promote financial inclusion?<sup>3</sup>

The 2015 report assessed the financial inclusion landscape across 21 economically, geographically, and politically diverse countries by examining country-specific legislation and news stories, reviewing multinational datasets, and corresponding with financial inclusion experts in the focus countries and beyond.

The FDIP team developed a set of metrics to measure countries' commitment to and progress toward financial inclusion. The metrics were designed to evaluate four "dimensions" of financial inclusion: country commitment, mobile capacity, regulatory environment, and adoption of traditional and digital financial services.

#### The 2015 report yielded the following key takeaways:

- Country commitments to advancing financial inclusion matter.
- The movement toward digital financial services will accelerate financial inclusion.
- Geography generally matters less than policy, legal, and regulatory factors, although some regional trends in terms of financial services provision are evident.
- Central banks, ministries of finance, ministries of communications, banks, nonbank financial service providers, and mobile network operators have major roles in achieving greater financial inclusion and should coordinate closely with respect to policy, regulatory, and technological advances.
- Full financial inclusion cannot be achieved without addressing the financial inclusion gender gap and accounting for diverse cultural contexts with respect to financial services.

In 2016, the FDIP team added five new countries to the study: the Dominican Republic, Egypt, El Salvador, Haiti, and Vietnam. We also enhanced our metrics list to incorporate feedback from members of the financial inclusion community and better capture progress toward financial inclusion. The 2016 report found that substantial progress

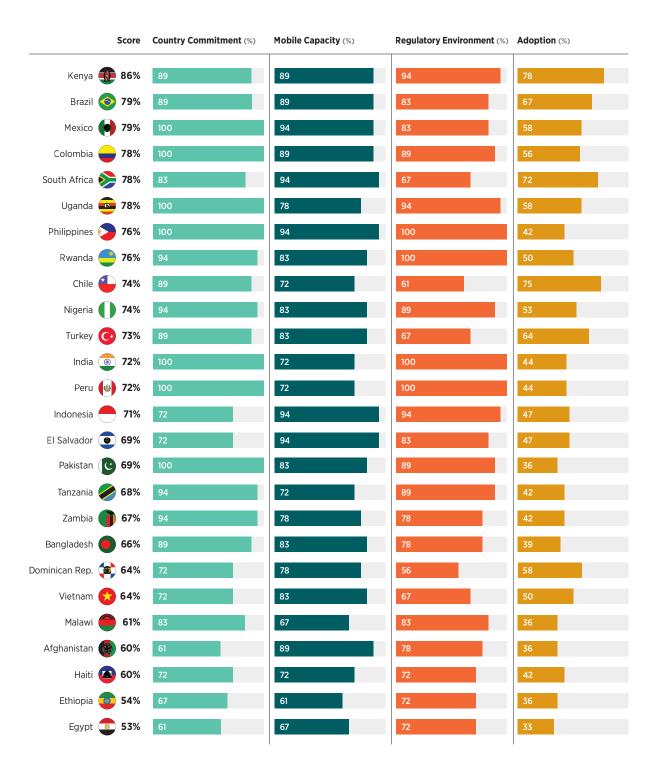
had been made toward advancing financial inclusion in many countries. Generally, we found that the right blend of stakeholder buy-in across the public, private, and civil society sectors, coupled with an enabling regulatory framework for digital financial services, was key for amplifying access to financial services among underserved populations.<sup>4</sup>

The 2016 report honed in on opportunities to facilitate greater access to and usage of financial services among select groups of marginalized populations specifically, women, refugees, and under-resourced migrants. Action items that may help reduce the gender gap<sup>5</sup> in financial inclusion include advancing data collection efforts to determine how groups utilize existing services and identify gaps in the market; leveraging that data to develop specific targets, initiatives, and strategies for advancing women's financial inclusion; identifying and cultivating "champions" to amplify awareness among government entities and private sector representatives regarding gender disparities in financial inclusion; promoting the development of digital identity programs; leveraging digital channels to advance convenient access to financial services; and considering how to best ensure customers are comfortable accessing financial services.

We also identified three actions items for fostering a more accessible and inclusive ecosystem for refugees and under-resourced migrants. These actions items include 1) ensuring that the design and delivery of financial services is conducive to the needs of non-native customers where possible; 2) developing financial policies that consider the needs of young refugees and migrants; and 3) facilitating inclusive access to digital identity mechanisms.

Additionally, the 2016 report identified four priority areas that warrant additional action on the part of the international financial inclusion community: 1) establishing specific, measurable financial inclusion targets; 2) collecting and analyzing data relevant to financial access and usage, particularly among underserved groups; 3) advancing regulatory changes designed to facilitate financial inclusion; and 4) enhancing financial capability among consumers.

### **KEY FINDINGS FOR 2017**



or the third year in a row, Kenya ranked at the top of the FDIP scorecard, driven by its robust commitment to advancing financial inclusion, widespread adoption of mobile money services among traditionally underserved groups, an increasingly broad range of mobile money services (including insurance and loan products), and an enabling regulatory environment for digital financial services.

As in previous years, the top-performing countries were regionally diverse. In addition to Kenya, the other top-scoring countries were distributed across Latin America and Sub-Saharan Africa: Brazil and Mexico tied for second place, and Colombia, South Africa, and Uganda tied for third.

Countries in Asia were also represented near the top of the scorecard, with the Philippines scoring only two percentage points behind Colombia, South Africa, and Uganda. We expect that other FDIP countries in this region will continue to enhance their digital ecosystems and adoption rates of formal financial services over time, given the region's robust technology environment and widespread adoption of mobile phones (the Asia Pacific region is expected to account for about two-thirds of the 860 million new mobile subscribers anticipated globally by 2020).<sup>6</sup>

Below, we drill down into dimension-level findings from the FDIP scorecard. For selected financial inclusion-related highlights and suggested next steps for each of the 26 countries in our sample, please consult the country summaries on pages 14–44. More background on these countries' financial inclusion environments is available in the 2015 and 2016 FDIP reports.

### **Country commitment**

As in last year's report, the 2017 report finds that several FDIP countries have enhanced their national-level commitments to advancing financial inclusion. Indeed, for the first time in the course of our project lifecycle, all of the FDIP countries are members of international financial inclusion-oriented organizations or networks. These entities include organizations such as the Better Than Cash Alliance (BTCA) and networks such as the Alliance for Financial Inclusion (AFI).

Moreover, among the countries that have made progress on indicators such as the development of national financial inclusion strategies and bodies, these financial inclusion entities often emphasize the quality dimension of financial inclusion, not just access to and use of services. One example of this phenomenon can be found in Afghanistan, where Da Afghanistan Bank's Financial Inclusion Department, established in June 2016,7 expresses a vision of providing "convenient, secure, proper, economical, high quality and continuous access to financial services [...] especially [for] the low-income, vulnerable and deprived section of the society."8 That department focuses on areas such as responsible finance and consumer protection, data measurement, and financial inclusion policy and regulation.<sup>9</sup> Among its responsibilities is the preparation of a national strategy for financial inclusion.<sup>10</sup>

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Other FDIP countries' recent efforts to advance financial inclusion demonstrate their interest in helping enhance and monitor access to financial services, as well as bolster the quality of customers' experiences with those services. Examples of countries that have improved their country commitment scores since 2016 include Egypt, where the central bank established a financial inclusion support unit in May 2017;<sup>11</sup> the Dominican Republic, which serves as a member of the BTCA;<sup>12</sup> and Mexico, which launched its national financial inclusion strategy in June 2016.<sup>13</sup>

With respect to the latter, Mexico's strategy reflects a holistic perspective of financial inclusion by focusing on data collection and quality in addition to access and usage. The strategy is structured around six pillars, which emphasize issues like financial education (particularly for children and youth), the development of telecommunications infrastructure and financial infrastructure in underserved areas, client protection, and generation of data and measurements.<sup>14</sup>

### **Mobile capacity**

The global mobile environment has continued to demonstrate considerable progress over the past year, with current and future growth concentrated in developing markets. According to the GSMA (a trade body that represents the interests of mobile operators globally), by the end of 2016, 65 percent of the world's population had a mobile subscription, with that penetration rate expected to reach 73 percent by 2020.<sup>15</sup> Developing markets are expected to account for nine out of ten new subscribers in the period between 2016 and 2020.<sup>16</sup>

However, there are ample opportunities for growth with respect to infrastructure, particularly in developing markets. The GSMA's 2017 report on the global mobile economy noted that about 1.3 billion people are not covered by a mobile broadband network. Certain areas face particularly acute challenges in terms of infrastructure investment. For example, in Sub-Saharan Africa, the GSMA noted that "two thirds of the population live in rural areas where capital-intensive infrastructure deployment is commercially unviable."<sup>17</sup>

The global mobile environment has continued to demonstrate considerable progress over the past year, with current and future growth concentrated in developing markets.

> In terms of mobile money, by the end of 2016 more than half a billion mobile money accounts were registered around the world,<sup>18</sup> and mobile money services were available in two-thirds of low- and middle-income countries.<sup>19</sup> Domestic mobile money account-to-account interoperability arrangements may have boosted adoption of these services, as customers from one mobile money provider can send money directly to the accounts of customers of

another provider, maximizing the utility of these services for some customers. As of 2016, the GSMA found that 15 markets exhibited this form of interoperability, including ten FDIP countries.<sup>20</sup>

The top-scoring countries on the mobile capacity dimension of the FDIP scorecard are quite economically and regionally diverse, representing Latin America and the Caribbean, Africa, and Asia. The five top-scoring countries for 2017 are El Salvador, Indonesia, Mexico, the Philippines, and South Africa.

Among the 26 FDIP countries, Mexico and Peru made the greatest scoring improvements between 2016 and 2017 with respect to the mobile capacity dimension. Mexico's scoring increase was due in part to significant advancements in the adoption of smartphones, which can provide a more user-friendly platform for engaging in financial transactions than feature phones.<sup>21</sup>

In the case of Peru, increases in the adoption of smartphones and the expansion of mobile money offerings helped drive its scoring increase, which was the largest increase of any FDIP country on the mobile capacity dimension. We expect Peru to continue to augment the diversity of its mobile money offerings and adoption rates in the future as the fully-interoperable Bim mobile money platform continues to adapt to market needs and scale up.<sup>22</sup>

The Bim payments platform got off to a slower start than expected due to various challenges, including difficulty among agents adapting from point of sale devices to mobile phones and mobile network coverage gaps.<sup>23</sup> However, broad buy-in from key stakeholder groups and strong commitment from the company managing the platform should help Bim meet its revised financial inclusion-related targets in the future.<sup>24</sup>

### **Regulatory environment**

Across the full FDIP country sample, changes in countries' regulatory environment scores were less pronounced than in the country commitment and mobile capacity dimensions. This is likely in part because regulatory adjustments are particularly time-intensive to develop and implement. However, several countries have made progress toward fostering a more enabling regulatory environment. For example, countries such as Egypt and

the Philippines instituted mobile money account-to-account interoperability in 2016, according to the GSMA.<sup>25</sup>

It should be noted that the country summaries in this report highlight several possible next steps for financial inclusion experts to consider when evaluating how to best advance an enabling regulatory environment for traditional and digital financial services. Suggested action items and highlights from the 2015 and 2016 reports have been reaffirmed or adjusted in accordance with financial inclusion developments in each country. Mexico and Peru made the greatest scoring improvements between 2016 and 2017 with respect to the mobile capacity dimension.

### KEY TRENDS AND CALLS TO ACTION

Below we identify three key overall findings and associated calls to action, based upon trends observed across the international financial inclusion landscape throughout the course of the FDIP lifecycle.

### Growth in national-level recognition among the FDIP countries of financial inclusion as a key ingredient for sustainable development is consistent with a broader global pattern.

The potential social and economic benefits of digital finance and financial inclusion are widely recognized. Access to and usage of formal financial services helps improve local economic activity, enable customers to plan for the future, and boost household welfare, among other benefits.<sup>26</sup> With respect to digital finance specifically, a September 2016 study by the McKinsey Global Institute found that "widespread use of digital finance could boost annual GDP of all emerging economies by \$3.7 trillion by 2025."<sup>27</sup>

While the micro- and macroeconomic benefits of fostering financial inclusion have received significant attention globally, many important questions about how best to balance principles such as financial security, privacy, inclusion, and consumer protection remain.

> While the micro- and macroeconomic benefits of fostering financial inclusion have received significant attention globally, many important questions about how best to balance principles such as financial security, privacy, inclusion, and consumer protection remain. Entities

such as AFI, BTCA, and the Global Partnership for Financial Inclusion provide platforms for policymakers, regulators, private sector representatives, and civil society entities to discuss those key questions and share valuable learnings about ways to advance financial inclusion through digital and traditional mechanisms.<sup>28</sup> As noted above, all 26 FDIP focus countries have joined international knowledge-sharing networks such as AFI and BTCA.

Moreover, the vast majority of FDIP countries are members of the Maya Declaration, a framework for financial regulatory and policymaking institutions to "make concrete financial inclusion targets, implement in-country policy changes, and regularly share progress updates."<sup>29</sup> When the Maya Declaration was launched at the 2011 AFI Global Policy Forum, 17 AFI members made commitments under the declaration. Five years later, that number had more than tripled.<sup>30</sup> While this trend indicates considerable progress, given that the 58 member institutions with commitments represent about 51 percent of AFI's membership, there are still opportunities for further growth.

While financial inclusion is widely accepted as a mechanism for helping to achieve broader sustainable development goals such as gender equity and poverty reduction, there are several steps that countries should take to transform this understanding into action.

First, as discussed in the 2015 FDIP report, policymakers, regulators, and other national-level financial inclusion entities should set specific, measurable targets related to financial inclusion. For example, countries can enshrine these targets in their national financial inclusion strategies and include them among their Maya Declaration targets.

Second, policymakers and regulators should establish specific financial consumer protection guidelines and coordinate with financial service providers and civil society entities to determine how to ensure customers understand the terms of financial products and services available to them, as well as relevant redress mechanisms. There is evidence to suggest consumer protection is already a priority area for many countries: Of the specific commitments under the Maya Declaration as of June 2016, more than a quarter were related to consumer empowerment and market conduct, which includes consumer protection, financial literacy, and financial education. The second-highest number of commitments involved digital financial services, with the collection of financial inclusion data coming in third.<sup>31</sup>

As we noted in the 2016 FDIP report, financial literacy and financial education programs should consider how to enable customers to fully absorb and leverage information related to financial products and services in ways that help advance their financial health. In other words, these programs should seek to advance financial capability, defined by the Center for Financial Inclusion as "the combination of knowledge, skills, attitudes, and behaviors a person needs to make sound financial decisions that support well-being."<sup>32</sup>

Organizations like the Center for Financial Inclusion and the World Bank Group have published a number of studies highlighting tools for regulators, policymakers, financial service providers, and other interested parties to utilize when assessing financial capability and developing financial capability programs.<sup>33 34</sup> Among these best practices for financial capability interventions are taking advantage of teachable moments; learning by doing; providing reminders and default options (e.g., default savings options); sharing heuristics (i.e., mental shortcuts); using gamification and other approaches to make learning enjoyable; tailoring the programs to specific customers or groups; and using the power of social connections to provide support and positive reinforcement to customers.<sup>35</sup>

Third, financial inclusion stakeholders such as financial service providers and civil society entities should collaborate closely with government entities, both domestically and internationally, to share their various perspectives on financial inclusion pathways and challenges. This dialogue will enable countries to identify interesting financial inclusion-related interventions and share key learnings regarding best practices.

Finally, where possible regulators and policymakers should consistently provide updated, detailed data on progress toward their objectives within a publicly Where possible, regulators and policymakers should consistently provide updated, detailed data on progress toward their objectives within a publicly available platform in order to facilitate greater transparency, accountability, and knowledge-sharing.

available platform in order to facilitate greater transparency, accountability, and knowledge-sharing. The AFI Data Portal is one valuable platform for this kind of information exchange.<sup>36</sup> Regulators and policymakers should share regular updates where possible on specific financial inclusion targets and initiatives in order to maximize the utility of the data among financial inclusion stakeholders.

# 2. Fintech possesses tremendous potential to accelerate progress toward financial inclusion but requires a collaborative approach to facilitate innovation and ensure security.

"Fintech" is a broad term situated at the intersection of the financial services and technology sectors.<sup>37</sup> Given the complexity of these sectors, a variety of players are involved in the fintech space, including startups, established technology companies, financial service institutions, consumers, regulators, other government entities, and investors.<sup>38</sup> As noted by the International Monetary Fund, one of the challenges of fintech is that the diversity of entities involved in this space, along with rapidly evolving technological capabilities, have led to a blurring of boundaries "among intermediaries, markets, and new service providers."<sup>39</sup> Indeed, the Financial Stability Board notes that fintech activities can be sorted into several categories of financial services, including "(i) payments, clearing and settlement; (ii) deposits, lending and capital raising; (iii) insurance; (iv) investment management; and (v) market support [...]."40

The potential benefits of leveraging technology in the financial services sector include reducing costs,<sup>41</sup> enhancing opportunities to meet customers' evolving needs with new financial service offerings and platforms,<sup>42</sup> and streamlining operations and speeding processes.<sup>43</sup> For these reasons and others, mainstream financial institutions are embracing the possibilities of complementary roles with fintech entities. For example, a 2017 PwC report found that 82 percent of survey respondents from the financial services sector on average expected to increase fintech partnerships in the next three to five years.<sup>44</sup>

Given the social and economic opportunities afforded by fintech, it is perhaps not surprising that global fintech funding has experienced significant growth.

> As noted by the Institute of International Finance and the Center for Financial Inclusion at Accion, these partnerships can help address financial inclusion challenges by facilitating access to new market segments; developing new products for existing customers; collecting and using data; and deepening customer engagement with financial services, among other benefits.<sup>45</sup>

> Given the social and economic opportunities afforded by fintech, it is perhaps not surprising that global fintech funding has experienced significant growth.<sup>46</sup> According to the 2017 PwC report, funding of fintech startups has "increased at a compound annual growth rate (CAGR) of 41 percent over the last four years."<sup>47</sup>

> Examples of fintech partnerships that support topics such as financial education and inclusion include initiatives in Mexico and Colombia. BBVA Bancomer in Mexico and Bancolombia in Colombia are each partnering with a Silicon Valley-based startup called Juntos in order to send tailored text messages to customers to help remind them to save and respond with information on their "financial needs and goals."<sup>48</sup>

> Moving forward, traditional financial institutions and fintech entities in each of the FDIP countries and beyond should coordinate closely in order to leverage the strengths of their respective sectors, which include robust infrastructure and technological expertise, respectively.<sup>49</sup> National financial inclusion bodies can provide a platform to facilitate this kind of coordination.

> Second, policymakers and regulators should consider establishing regulatory "sandboxes" to enable

fintech entities to explore various opportunities for innovation within a supportive and clear regulatory environment. These sandboxes serve as a "set of rules that allows innovators to test their products/business models in live environment without following some or all legal requirements, subject to predefined restrictions," including limitations on the number of clients and risk exposure, time-limited testing, predefined exemptions, and testing under the regulator's supervision.<sup>50</sup>

Third, policymakers, regulators, financial service providers, fintech startups, and any other entities that utilize fintech should invest in cybersecurity assessments and risk management training to help protect the integrity of their services, which in turn supports consumer confidence in the formal financial sector. (More information on this topic is included in the third key finding, below.)

Finally, policymakers and regulators should develop or strengthen targeted financial consumer protection frameworks and related initiatives to ensure that adequate consumer protections are in place. While many FDIP countries have emphasized the importance of consumer protection in their Maya Declaration targets and financial inclusion strategies, far fewer have robust financial consumer protection frameworks in place, signifying opportunities for progress.

### Given the increasing prevalence of digital financial services and the diversity of players involved in the financial services sector, the issue of cybersecurity merits greater attention and action from the financial inclusion community.

While fintech innovations can help enhance the security of certain services in the financial sector, these innovations can also be vulnerable to cybersecurity risks. As noted by the Financial Stability Board (FSB), "[S]ome operational risks could be reduced with FinTech developments, as legacy systems are modernised and processes streamlined. Yet cyber risk, third-party dependencies and legal uncertainty could lead to new and expanded sources of operational vulnerabilities."<sup>51</sup>

For example, as one of the authors of this report has observed, while innovations like blockchain "can in principle be extremely secure, securing them requires careful attention to issues including where and how private keys are stored and used, the methodology for confirming transactions, and mechanisms for establishing and modifying how distributed systems obtain consensus."<sup>52</sup>

Given the increasing prevalence of digital financial services that leverage fintech solutions—for example, the 2017 PwC report found that 77 percent of survey respondents from the financial services sector planned to adopt blockchain as part of a production system or process by 2020<sup>53</sup>—it is important for financial inclusion stakeholders to carefully consider cybersecurity risks and approaches. As noted by the FSB, "Ex ante contingency plans for cyberattacks, information sharing, monitoring, a focus on incorporating cyber-security in the early design of systems, and financial and technology literacy could help to lower the probability of cyber events that have adverse effects on financial stability."<sup>54</sup>

To facilitate discussions regarding key questions at the intersection of cybersecurity and financial inclusion, the FDIP team hosted a roundtable at Brookings in February 2017. The roundtable provided a platform for a diverse array of public sector, private sector, and civil society representatives to discuss cybersecurity challenges and opportunities within the digital financial ecosystem and explore possible mechanisms for policymakers, regulators, financial service providers, nongovernmental organizations, and other stakeholders to help strengthen the state of cybersecurity within the global financial landscape.<sup>55</sup> We highlight takeaways from the roundtable below, drawing from the event readout.<sup>56</sup>

Participants at the roundtable noted that budget constraints, competing policy priorities, an unwillingness to draw attention to cyber threats, and a lack of awareness surrounding cybersecurity issues may all serve as barriers that preclude regulators, policymakers, mainstream financial service entities, and fintech companies from adequately investing in cybersecurity measures.<sup>57</sup>

However, participants also generally agreed that financial entities must nonetheless take proactive steps to assess the security of their respective systems and those of their partners in the digital financial ecosystem, while policymakers and regulators must ensure that customers are protected in the case of an adverse cyber event or other security issue. We outline a number of these steps below.

First, policymakers and regulators, fintech firms, civil society entities with financial inclusion expertise, and traditional financial institutions such as banks should amplify discussions surrounding cybersecurity in order to facilitate technical assistance and identify a menu of best practices. However, these discussions should be framed in a way that does not have an unnecessary chilling effect on some customers' willingness to engage with digital financial services because they are alarmed or confused by cybersecurity terminology.

### Financial service providers must take steps to ensure that the development of innovative products is coupled with stringent testing and monitoring.

Second, regulators and policymakers should consider the use cases and technologies involved when developing appropriate cybersecurity guidance and solutions. For example, cybersecurity solutions in the mobile financial services space should be tailored to the type of network (e.g., 2G) that the product leverages.

Third, financial service providers must take steps to ensure that the development of innovative products is coupled with stringent testing and monitoring. After all, as the fintech sector grows, there will be "more interfaces between traditional financial service providers and fintech startups—and therefore more cyber vulnerability as data crosses those interfaces."<sup>58</sup>

Finally, the financial service providers and entities that house financial data should invest in bolstering the security of outdated or centralized systems in order to protect the integrity of the financial ecosystem. Knowledge-sharing and technical assistance will be a key component of this effort.



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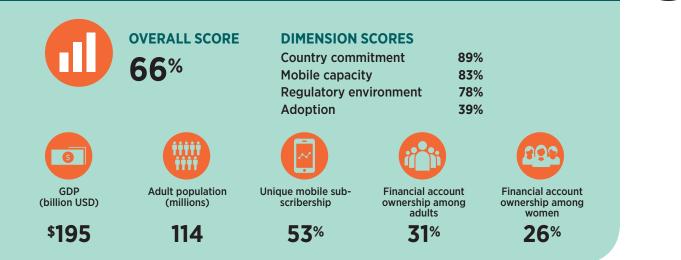
# AFGHANISTAN



- In June 2016, Da Afghanistan Bank established the Financial Inclusion Department, which includes a number of objectives related to the development and implementation of a national financial inclusion strategy, as well as advancing consumer protection, improving financial capability, conducting diagnostic studies to identify financial inclusion obstacles, and establishing a national database for financial inclusion.<sup>12</sup>
- In 2016, Afghanistan's national payments system went live. An initiative led by Da Afghanistan Bank enabled BPC Banking Technologies' SmartVista platform to serve as the national cards and mobile payment switch to interconnect banks, mobile wallets, third-party aggregators, and other key players.<sup>13</sup>

- Consider instituting agent banking regulations to increase regulatory clarity and amplify distribution of financial access points
- Finalize a national financial inclusion strategy to enhance coordination across relevant stakeholders and develop specific financial inclusion objectives
- Scale and expand mobile money agent interoperability arrangements, which to date have been limited<sup>15</sup>

## BANGLADESH





• Committed to the Maya Declaration in 2012<sup>1</sup>

### Selected financial inclusion highlights

- Joined the Better Than Cash Alliance in June 2015<sup>2</sup>
- Established the Financial Inclusion Department within Bangladesh Bank in July 2015<sup>3</sup>
- Supported efforts to advance financial literacy and capability among women entrepreneurs<sup>4</sup>

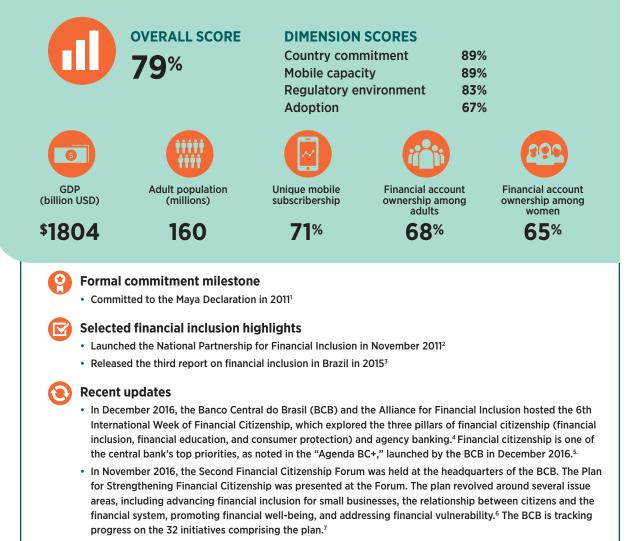
### Recent updates

- In May 2017, Bangladesh Bank was awarded the Global Money Week Award at the Global Inclusion Awards 2017, hosted by Child and Youth Finance International, for its "sustainable and innovative financial inclusion and financial education initiatives."<sup>5</sup>
- Bangladesh Bank publishes quarterly reports on agent banking; as of May 2017, the latest report featured data from January to March 2017.<sup>6</sup>
- At the time this report was prepared, Bangladesh Bank had published its latest report on the state of financial inclusion in March 2017.<sup>7</sup> Bangladesh Bank has also issued a number of circulars relating to financial inclusion.<sup>8</sup>.

- · Finalize, disseminate, and implement the national financial inclusion strategy
- Promote affordability of mobile phones to facilitate greater access to mobile financial services and expand the availability of services like credit, savings, and insurance
- · Advance wallet-to-wallet interoperability with respect to mobile financial services



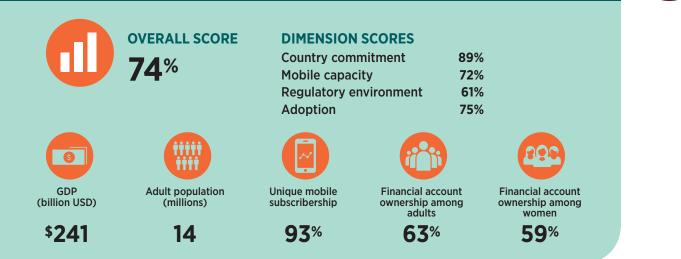
# BRAZIL



- In September 2016, the BCB published the third edition of a report series on the use and quality of financial services. By complementing survey findings with information from the BCB's database, the report found that more than 70 percent of the adult population used bank accounts frequently and that almost half of the adult population had access to credit within the previous year.<sup>8</sup>
- In August 2016, the BCB released a report that highlighted its Financial Citizenship Program. One example of an initiative conducted under the program was a public-private effort involving 150 schools, in which financial education content was disseminated to students, teachers, and their relatives during National Students' Day.<sup>9</sup>
- Financial inclusion indicators, including service point indicators and other indicators focused on the national financial system, are being published progressively in the "Time Series Management System."<sup>10</sup>

- Leverage the financial indicators data to help enhance understanding of the financial inclusion landscape and identify next steps for advancing financial inclusion for consumers and entrepreneurs
- Operationalize learnings from the Financial Citizenship Forum and 6th International Week of Financial Citizenship to help improve access, usage, and quality of formal financial services

# CHILE



### Formal commitment milestone

Committed to the Maya Declaration in 2012<sup>1</sup>

### Selected financial inclusion highlights

- Instituted a national financial inclusion council in 2014<sup>2</sup>
- Ranked in the top-five with respect to formal financial institution account penetration among the FDIP countries as of 2014<sup>3</sup>
- Recognized by Data2X, the Inter-American Development Bank, the Global Banking Alliance for Women, and the United Nations Economic Commission for Latin America and the Caribbean in 2016 as the only country that has monitored sex-disaggregated data regarding its financial system consistently over a significant period of time<sup>4</sup>

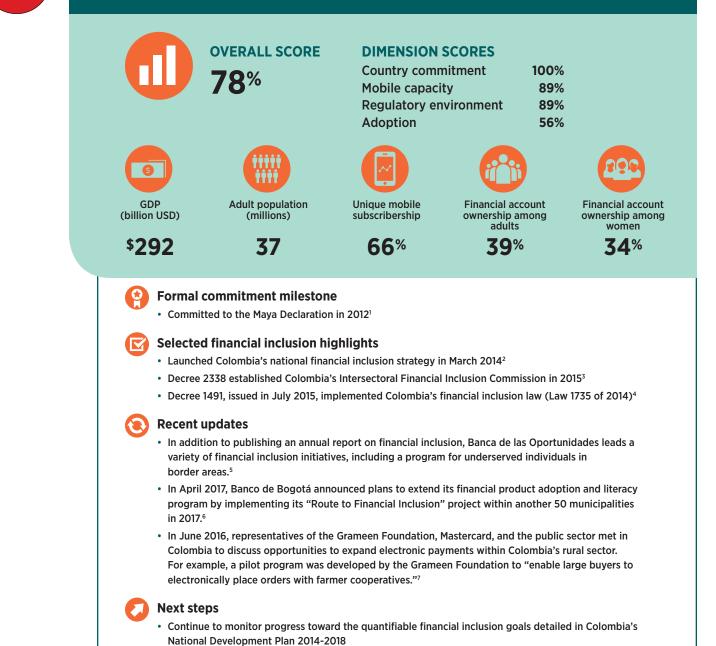
#### Recent updates

- In December 2016, the Superintendency of Banks and Financial Institutions of Chile hosted the second "Conference on Banking Development, Stability, and Sustainability," in conjunction with the Association of Supervisors of Banks of the Americas, the Millennium Institute for Market Imperfections & Public Policy, and the Department of Industrial Engineering of the University of Chile. The conference included a session focused on financial education and inclusion and featured a discussion of the "Survey of financial capabilities measurement in the Andean countries: Chile."<sup>5</sup>
- Chile's first financial capacity measurement survey with national coverage was undertaken during July and August 2016. The survey was sponsored by CAF, the development bank of Latin America, and the SBIF. The survey aimed to serve as a diagnostic of the financial knowledge, skills, attitudes, and behaviors of Chilean adults.<sup>6</sup>

- Diversify the mobile money ecosystem by expanding the number of providers and offerings
- Leverage findings from financial capacity measurement survey to identify interventions targeted at enhancing financial inclusion among women and other underserved groups
- Finalize revisions to a 2014 law on digital payments to "expand the offer of e-money by regulated financial institutions," as well as a law on the delivery of e-payment products and services by nonbank financial service providers<sup>7</sup>

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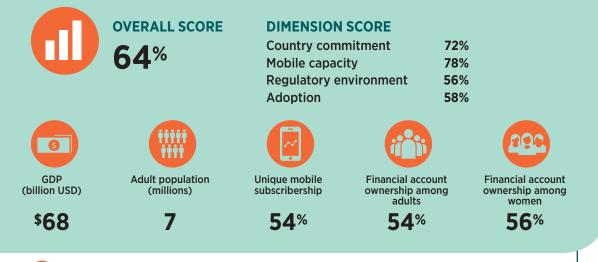
## COLOMBIA



· Scale programs to advance financial literacy and electronic payments

# **DOMINICAN REPUBLIC**







• Joined the Better Than Cash Alliance<sup>1</sup>

### Selected financial inclusion highlights

- Launched mobile money deployments in 2014<sup>2</sup>
- Passed legislation permitting agent banking in 2014<sup>3</sup>
- Conducted the National Survey of Economic and Financial Education in 2014<sup>4</sup>

### Recent updates

- In 2016, the Ministerio de Hacienda de la República Dominicana joined the Better Than Cash Alliance.<sup>5</sup>
- Over the past year, the continued creation of subagents and mobile banking facilities has expanded the number of people who have access to certain financial products. For example, Banco Popular Dominicano had nearly 1,500 affiliated businesses as part of its network of banking sub-agents as of July 2016.<sup>6</sup>

- · Institute a national financial inclusion strategy
- · Develop a comprehensive electronic money regulatory framework
- Identify quantifiable financial inclusion targets



# EGYPT



### Selected financial inclusion highlights

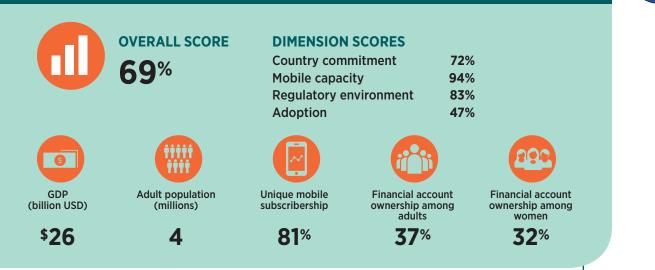
- Agent banking is permitted under the 2003 Banking Law, and banks are permitted to issue electronic money under the 2010 regulations on mobile payments and transfers<sup>2</sup>
- Law 141 of 2014 provided guidance regarding microfinance<sup>3</sup>

### Recent updates

- In May 2017, Egypt's central bank established a financial inclusion unit and was preparing a study on the financial services market on both the demand and supply side. The purpose of the study is to assess the quality dimension of new services and identify regulations and other legislation that might help to accelerate financial inclusion. The study is expected to be completed by the end of 2017.<sup>4</sup>
- Also in May 2017, the Egyptian Banking Institute organized a conference on advancing financial inclusion in the banking sector.<sup>5</sup>
- In February 2017, the National Payment Council was established in order to promote digital payments and facilitate adoption of formal financial services.<sup>6</sup>
- At the end of 2016, Egypt issued new regulations for mobile payments in an effort to advance crossborder remittances from mobile wallets.<sup>7</sup>
- In 2016, Egypt achieved account-to-account mobile money interoperability.<sup>8</sup>

- Institute a national financial inclusion strategy
- Set specific financial inclusion targets within the national financial inclusion strategy and/or international financial inclusion networks
- Complete and disseminate findings from the Central Bank of Egypt's study on the financial services market

## **EL SALVADOR**





• Committed to the Maya Declaration in 20131

#### Selected financial inclusion highlights

- Considered among the top 15 mobile money markets in the world in 2015, as measured by the proportion of active accounts relative to the total adult population<sup>2</sup>
- Approved a financial inclusion law in August 2015<sup>3</sup>
- Developed a set of indicators to measure progress toward financial inclusion<sup>4</sup>

### Recent updates

- On August 13, 2016, El Salvador's Legislative Assembly approved the Financial Inclusion Bill.<sup>5</sup> Entities such as the GSMA have raised some concerns with the bill, including possible burdensome costs associated with the requirement that mobile money providers store customers' funds in the central bank (rather than a commercial bank), and the fact that interest cannot be earned from the deposit held by the central bank.<sup>6</sup>
- As noted in the Alliance for Financial Inclusion's 2016 Maya Declaration report, the results of the first National Financial Access Survey were presented to the central bank of El Salvador in late May 2016. The report notes that data was collected at the national and departmental level.<sup>7</sup>

- · Expand digitization of government-to-person and person-to-business transfers
- Following the presentation of the National Financial Access Survey, incorporate feedback from key stakeholders to develop an action plan for addressing gaps in access to and usage of formal financial services
- Implement initiatives to foster financial education among underserved populations and define indicators to measure the progress of financial inclusion



# **ETHIOPIA**



### Selected financial inclusion highlights

- Established several financial inclusion goals in areas such as digital financial services, financial literacy, and payment systems as part of the country's Maya Declaration commitments<sup>2</sup>
- Initiated the creation of a Financial Inclusion Council in 2014<sup>3</sup>
- Coordinated with the World Bank Group to develop a national financial inclusion strategy<sup>4</sup>

### Recent financial inclusion highlights

- As of September 2016, HomeSend (a joint venture of Mastercard and eServGlobal) and the Commercial Bank of Ethiopia announced a new remittance service during the US-Africa Business Forum that will allow more than 100 million Ethiopians to send funds directly to any mobile number in Ethiopia. This service was expected to be operational by the end of 2016.<sup>5</sup>
- According to a September 2016 report by McKinsey & Company, Ethiopia could experience a GDP increase of an estimated \$15 billion by 2025 through greater adoption of digital financial services.<sup>6</sup>
- As noted in the Alliance for Financial Inclusion's 2016 Maya Declaration report, published in August 2016, the National Bank of Ethiopia was preparing a national financial sector master plan that will encompass initiatives to achieve financial inclusion commitments under the Maya Declaration.<sup>7</sup>

- · Strengthen mobile and other digital infrastructure to enhance adoption of digital financial services
- · Approve and implement the national financial inclusion strategy

# HAITI





### Formal commitment milestone

• Committed to the Maya Declaration in 2013<sup>1</sup>

### Selected financial inclusion highlights

- Permitted customers to use electronic wallet accounts under 2010 guidelines on electronic money<sup>2</sup>
- Developed a national financial inclusion strategy, with the support of the World Bank, in 2015<sup>3</sup>
- As of 2016, Haiti's central bank was working on the development of a comprehensive consumer protection framework<sup>4</sup>

### **Recent updates**

 The implementation of the country's financial inclusion strategy has been delayed due to the country's uncertain political atmosphere, according to the Economist Intelligence Unit's "The Global Microscope 2016: The enabling environment for financial inclusion" report.<sup>5</sup>



- · Move forward with implementation of the new financial inclusion strategy
- · Launch a national financial inclusion council



# INDIA



### Selected financial inclusion highlights

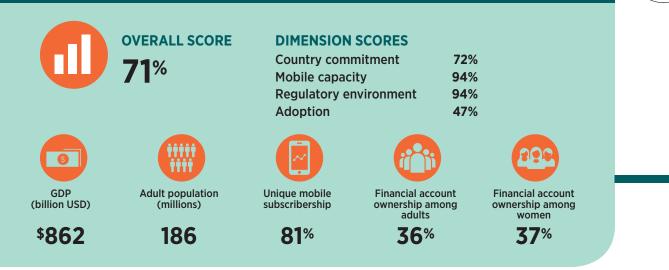
- Launched the Pradhan Mantri Jan Dhan Yojana program in 2014<sup>2</sup>
- Joined the Better Than Cash Alliance in September 2015<sup>3</sup>
- Issued provisional payments bank licenses to diverse entities, including nonbank institutions such as India Post, in August 2015<sup>4</sup>

### Recent updates

- As of May 2017, there were three fully functioning payments banks in India.<sup>5</sup>
- On November 8, 2016, the government of India instituted a "demonetization" drive, in which it was announced that Rs 500 and Rs 1,000 notes would become void by midnight the same day.<sup>6</sup> The aims of the drive included curbing corruption and advancing digital financial services.<sup>7</sup> However, while the drive did appear to lead to a significant increase in deposits in individuals' accounts within the month of the announcement,<sup>8</sup> the abrupt announcement led to economic disruption and other significant harms, including incidences of suicide, trampling, heart attacks, and denial of health care due to inability to pay with the demonetized currency.<sup>9</sup> <sup>10</sup> Moreover, experts hold diverging views on whether the drive will have long-term benefits, including in terms of leading to greater engagement with digital financial services and in curbing corruption. More time is needed to determine the full consequences of the initiative.<sup>11</sup> <sup>12</sup>
- India has achieved mobile money account-to-account interoperability across mobile money providers, according to the GSMA.<sup>13</sup>

- Implement and scale financial capability initiatives to reduce account dormancy rates and incentivize adoption of digital payments at merchant locations to enhance the digital financial services ecosystem
- · Monitor the effects of the demonetization initiative, particularly with respect to underserved groups

# **INDONESIA**



### Formal commitment milestone

• Committed to the Maya Declaration in 2012<sup>1</sup>

### Selected financial inclusion highlights

- Developed a national financial inclusion strategy in 2012 (a new strategy has since been launched)<sup>2</sup>
- Implemented mobile money platform interoperability in 2013<sup>3</sup>
- Tied for first place on the mobile capacity dimension of the 2017 FDIP scorecard

### Recent updates

- A survey conducted by MicroSave and AKSI found that there has been significant growth in digital financial services in Indonesia, both with respect to branchless banking and e-money, with about 290,000 agents and over three million accounts in formal financial institutions.<sup>4</sup> Yet there are opportunities for improvement, including limited awareness about transaction charges among consumers, limited financial literacy with respect to digital financial services, and a need to conduct greater outreach to unbanked consumers. The results of the survey were presented in May 2017.<sup>5</sup>
- In May 2017, Indonesia was selected as the country winner of the 2017 Global Inclusion Award for the Asia-Pacific Region during the 2017 Global Inclusion Awards organized by Child and Youth Finance International, in cooperation with the government of Germany.<sup>6</sup>
- A January 2017 press release noted that a national survey on financial literacy and inclusion conducted by the Indonesian Financial Services Authority (OJK) in 2016 found that financial literacy and financial inclusion had each grown by about 8 percentage points within a year.<sup>7</sup>
- In August 2016, the government of Indonesia presented a coordinated national strategy to promote financial inclusion, which will focus on six pillars, including financial education, supportive regulations, and consumer protection.<sup>8</sup>
- As of August 2016, OJK provided an outline of guidelines for the local fintech industry. The guidelines will focus on consumer protection issues, liability, and integrating banking entities, capital market entities, and non-bank financial institutions. By October 2016, OJK had formed a team to collect and analyze data that will inform the framework, and in November 2016, Bank Indonesia launched a special office for fintech.<sup>9 10 11</sup>



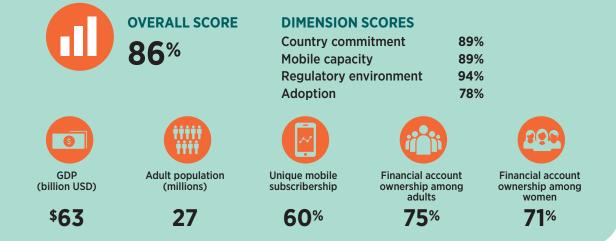
### Indonesia

 During the Indonesia Fintech Festival and Conference held from August 29-30, 2016 by OJK and Indonesian Chamber of Commerce and Industry, a memorandum of understanding was signed between OJK and the UN Development Programme regarding financial literacy and inclusion.<sup>12</sup>

- Harmonize electronic money and branchless banking guidelines to enhance regulatory clarity and advance a level playing field for financial service providers
- Continue to implement the recent national financial inclusion strategy and facilitate coordination
   across key stakeholders
- Finalize the fintech framework and share learnings from the fintech sector with international entities

# **KENYA**







• Committed to the Maya Declaration in 2011<sup>1</sup>

### Selected financial inclusion highlights

- Joined the Better Than Cash Alliance as a founding member<sup>2</sup>
- Received the highest score on the adoption dimension of the FDIP scorecard, primarily due to its considerable rates of mobile money adoption among low-income adults and women<sup>3</sup>
- Achieved a 50 percent increase in financial inclusion within the previous decade, according to a 2016 FinAccess household survey<sup>4</sup>

### Recent updates

- In May 2017, the Central Bank of Kenya and the Kenya Bankers Association organized a conference titled "Financial Inclusion 2.0: Expanding Kenya's Digital Financial Ecosystem."<sup>5</sup>
- Also in May 2017, the Competition Authority of Kenya issued a directive requiring telecommunications entities and financial institutions providing mobile money services to notify customers about the price of transactions in real time.<sup>6</sup>
- In April 2017, the Safaricom network experienced an outage that disrupted mobile money service M-Pesa.<sup>7</sup>
- In February 2017, the government of Kenya debuted Huduma cards, a fintech initiative that aims to leverage partnerships with Mastercard and several prominent banks to help enroll more citizens in government services like health insurance, facilitate adoption of digital financial services among unbanked individuals, and streamline the distribution of the services.<sup>8</sup>

- Enhance digital infrastructure to mitigate network challenges at agent locations, along with network outages
- Promote financial education and capability initiatives among underserved populations, including women, to broaden and deepen financial inclusion



# MALAWI



### Next steps

money acceleration."7

- · Disseminate best practices from the Feed the Future Malawi Mobile Money project, when available
- Amplify coordination of financial literacy initiatives to drive increased adoption of formal financial services
- Monitor progress toward measurable financial inclusion goals

# **MEXICO**







### Formal commitment milestone

• Committed to the Maya Declaration in 2011<sup>1</sup>

### Selected financial inclusion highlights

- Created a national council on financial inclusion, the Consejo Nacional de Inclusión Financiera, in 2011<sup>2</sup>
- Conducted a national survey to assess financial inclusion in 2015<sup>3</sup>
- Released the latest national report on financial inclusion in April 2016<sup>4</sup>

### Recent updates

- According to the GSMA, mobile money account-to-account interoperability is live in Mexico.<sup>5</sup>
- In February 2017, the Central Bank issued a regulation rendering it compulsory for all banks to offer a basic account for beneficiaries of government subsidies free of charge.<sup>6</sup>
- In June 2016, the National Council on Financial Inclusion released the National Financial Inclusion  $\mathsf{Plan.^{7\,8}}$
- Also in June 2016, the government of Mexico joined the United Nations-based Better Than Cash Alliance.<sup>9</sup>

### Next steps

Advance implementation of the national financial inclusion plan

# NIGERIA



### Selected financial inclusion highlights

- Launched a national financial inclusion strategy in 2012<sup>2</sup>
- Published guidelines on agent banking in February 2013<sup>3</sup>
- Released new guidelines on mobile money services in April 2015<sup>4</sup>

### Recent updates

- In May 2017, Paga and Nigerian Postal Service (NIPOST) announced a partnership aimed at making financial services accessible to all Nigerians by leveraging NIPOST offices across the country as financial service access points. This effort will build off the "shared agent network" framework approved by the Central Bank of Nigeria.<sup>5</sup>
- While the Central Bank of Nigeria initiated a nationwide rollout of a cashless policy on April 1,<sup>6</sup> 2017, digital financial services expert Dr. Olayinka David-West noted that the policy was reversed in 30 states by April 21.<sup>7</sup> Experts such as Dr. David-West have stated that these reversals may have implications for consumers' trust in the formal financial ecosystem, in addition to operational and technological costs.
- The Central Bank of Nigeria and other stakeholders have developed a financial education curriculum that is expected to be launched in September 2017.<sup>8</sup> This announcement was made during Global Money Week,<sup>9</sup> held from March 27-April 2, 2017.<sup>10</sup>
- A March 2017 article noted that Women's World Banking, with support from The Bill & Melinda Gates Foundation, is partnering with Diamond Bank and telecommunications company MTN to enhance understanding of what factors help digital financial services (DFS)—and particularly Diamond's "Y'ello" service—work well for low-income women."
- In December 2016, the Lagos Business School released "Digital Financial Services in Nigeria: State of the Market Report 2016," which provides an overview of the financial inclusion landscape in Nigeria, particularly with respect to adoption of DFS.<sup>12</sup> The report found that barriers to DFS adoption include "low economic activity amongst the underbanked and unbanked, lack of awareness, product-needs gaps, product complexity, utility cost and usage difficulty."<sup>13</sup>



### Nigeria

- Also in December 2016, *Business Day*, the Bill & Melinda Gates Foundation, and McKinsey Global Institute held a Financial Inclusion Summit, which focused on the potential impact of digital financial services.<sup>14</sup>
- According to the Governor of the Central Bank of Nigeria, Godwin Emefiele, increased adoption
  of DFS could lead to the creation of three million jobs by 2025.<sup>15</sup> Another aim of the government
  related to increased adoption of DFS is a 90 percent reduction in the cost of providing formal
  financial services.<sup>16</sup>

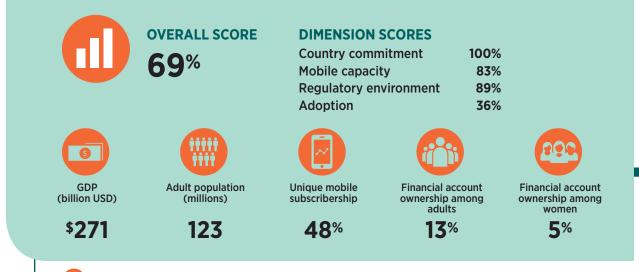
### Next steps

- Assess super-agent approval processes and engagement with super-agent networks to determine effectiveness in contributing to financial inclusion
- Continue to foster dialogue among financial service providers, technology companies, public sector entities, and mobile network operators (MNOs) regarding the best pathways to leverage the strengths of entities such as MNOs with respect to financial inclusion
- Amplify financial literacy and education efforts to address low awareness regarding digital financial service

31

32

# PAKISTAN



### Formal commitment milestone

Committed to the Maya Declaration in 2011<sup>1</sup>

### Selected financial inclusion highlights

- Introduced "Level 0" risk-proportionate accounts in 2011 to facilitate access to formal financial services among underserved populations<sup>2</sup>
- Launched the National Financial Inclusion Strategy in May 2015<sup>3</sup>
- Joined the Better Than Cash Alliance in September 2015<sup>4</sup>

### Recent updates

- An April 2017 article noted that the government of Pakistan had recently announced the launch of the Pakistan Financial Inclusion and Infrastructure Project, with funding of USD 130 million provided by the International Bank for Reconstruction and Development and the International Development Association. Three organizations in Pakistan will implement the project: the Pakistan Microfinance Investment Company, National Savings, and the State Bank of Pakistan's development finance group. The project aims to advance financial inclusion by promoting access to digital payments among businesses and households, as well as advancing access to credit for micro- and small and mediumsized enterprises.<sup>5</sup>
- In February 2017, Finance Minister Ishaq Dar emphasized that the government aimed to facilitate broadband capability to all uncovered areas by the following fiscal year in order to support the government's financial and digital inclusion goals.<sup>6</sup>
- During the Digital Banking and Mobile Payments Summit held in February 2017, a representative of the State Bank of Pakistan stated that the Bank is working to introduce a category of "digital bank" that will incorporate new and emerging technologies through a financial services entity.<sup>7</sup>
- During a World Economic Forum meeting held in January 2017, Mastercard announced it was collaborating with Pakistan's NADRA Technologies to help "optimize national ID cards with electronic payments functionality." This effort will allow citizens to "carry out financial transactions and receive government disbursements by utilizing the unique 13-digit identification number of their identity card," as well as use their ID to send and receive remittances.<sup>8</sup>



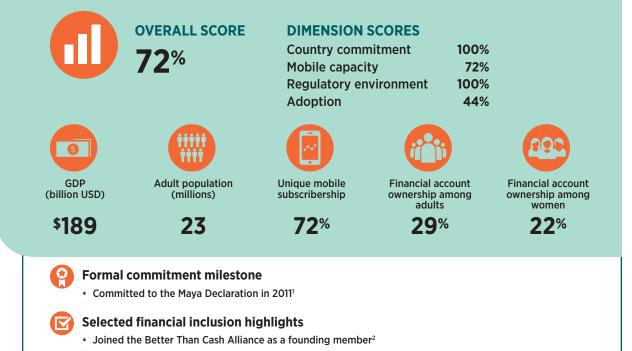
### Pakistan

 In October 2016, the Pakistan Post and Karandaaz Pakistan signed a partnership agreement to digitize money order services at Pakistan Post. According to the terms of the agreement, Karandaaz Pakistan will provide technical support in developing a new product called the "mobile money order," which will be made available through Pakistan Post.<sup>9</sup>

- · Promote registration of mobile wallet accounts to deepen usage of diverse financial services
- · Advance implementation of the Pakistan Financial Inclusion and Infrastructure Project
- · Enhance broadband infrastructure to support digital and financial inclusion



# PERU



- Approved the Comisión Multisectorial de Inclusión Financiera in 2014, which then designed the country's national financial inclusion strategy, published in July 2015<sup>3</sup>
- Publicly launched the "Bim" mobile wallet as part of the Modelo Perú partnership in February 2016<sup>4</sup>

#### Recent updates

- An April 2017 article noted that Bim mobile wallet users were expected to have access to more sophisticated mobile offerings such as microcredit, micro-insurance and micro-savings in the near future.<sup>5</sup>
- In January 2017, the Center for Financial Inclusion at Accion published a brief on Modelo Perú, the payments
  initiative that established the interoperable nationwide payments platform Bim. The brief highlighted that while
  the model's design is highly innovative, there were more challenges than expected, and the results did not meet
  initial projections. For example, the brief highlighted that a limited number of transactions (e.g., person-toperson payments) have been conducted within the platform.<sup>6</sup>
- To help advance adoption of Bim services among rural and unbanked or underbanked communities, the company that runs Bim, Pagos Digitales Peruanos (PDP), is working with Bitel, the smallest and last mobile network operator to join the platform, to participate in the platform and thus expand mobile coverage for current and prospective users. Moreover, PDP is implementing pilots in Cusco and Piura, cities with "limited infrastructure and banking agents," to try to better understand barriers to adoption of the service.<sup>7</sup>
- PDP is also working with Ericsson, a communications technology company, and select banks to "allow for Bim transactions to be incorporated into the banks' own [point of sale] systems," which may increase adoption rates by enabling agents to use systems that are more familiar to them than mobile phone-based systems.<sup>8</sup>

- Advance mobile capacity (e.g., by augmenting 3G network coverage) to strengthen the foundation for adoption of mobile financial services
- Incorporate lessons learned from the first year of Bim to strengthen the service and broaden access for underserved customers

# PHILIPPINES





#### Formal commitment milestone

Committed to the Maya Declaration in 2011<sup>1</sup>

#### Selected financial inclusion highlights

- Achieved the highest overall score among the FDIP countries in Asia<sup>2</sup>
- Launched a national financial inclusion strategy in July 2015<sup>3</sup>
- Instituted the National Retail Payment System Framework in 2015<sup>4</sup>

#### Recent updates

- In May 2017, Nestor Espenilla, then-deputy governor of the Bangko Sentral ng Pilipinas (BSP), was named to replace then-BSP Governor Amando Tetangco in July 2017.<sup>5</sup>
- Also in May 2017, a representative of the BSP indicated that the BSP would present a set of recommendations to a steering committee that are based on the findings of the 2014 Consumer Finance Survey that generated data on the "financial conditions of households" in the Philippines.<sup>6</sup>
- The BSP is working with the national government regarding the implementation of a governmentrun biometric-based identity system aimed at providing more efficient and equitable government services, including financial services.<sup>7</sup>
- The BSP has issued a series of circulars aimed at supporting digital financial inclusion. Examples
  include circulars that enhanced regulations for pawnshops, remittance agents, and other transfer
  companies that facilitate access to basic financial services; allowed banks to use third party cash
  agents to help expand access to financial services; and permitted certain institutions to implement
  reduced know-your-customer rules for low-risk accounts.<sup>8</sup>
- The Philippines' first "Economic and Financial Literacy Week" was held from November 7-11, 2016. This effort was in keeping with the Republic Act No. 10922 (The Economic and Financial Literacy Act of 2015).<sup>9</sup>
- In December 2016, the BSP indicated that it would establish "knowledge resource networks" by February 2017 to help improve the public's understanding of economic and financial concepts.<sup>10</sup>
- In June 2016, Executive Order No. 208 facilitating the Establishment of the Financial Inclusion Steering Committee, was signed by President Aquino.<sup>11</sup>
- Between June 2012 and June 2016, the percentage of local government units with microbanking offices grew by 105 percent, according to the BSP.<sup>12</sup>

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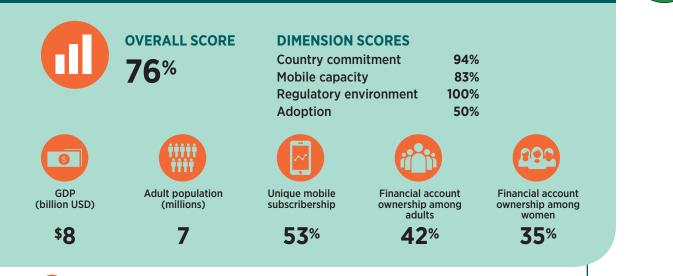


### **Philippines**



- Operationalize the recommendations of the steering committee regarding the findings of the 2014 Consumer Finance Survey
- Leverage the findings of the BSP's "Financial Inclusion Initiatives 2015" report, as well as the National Baseline Survey on Financial Inclusion and other studies, to identify underserved customers and target financial inclusion initiatives toward those customer segments
- · Monitor and assess the efficacy of the new knowledge resource networks

# **RWANDA**



#### Formal commitment milestone

Committed to the Maya Declaration in 2011<sup>1</sup>

#### Selected financial inclusion highlights

- Joined the Better Than Cash Alliance in 2014<sup>2</sup>
- Reduced financial exclusion among adults age 16 and older from 17 percentage points between 2012 and 2016, according to a 2016 FinScope survey<sup>3</sup>
- Implemented mobile money interoperability in 2015<sup>4</sup>

#### Recent updates

- A May 2017 article noted that the Rwanda Development Board and Mastercard announced a
  partnership at the 2016 World Economic Forum on Africa.<sup>5</sup> The shared project, called SIKASHI, aims to
  digitize state services to promote transparency and digital financial inclusion.<sup>6</sup>
- At the World Economic Forum on Africa held from May 3-5, 2017, the World Economic Forum, in collaboration with the central banks of Kenya, Rwanda, and Tanzania, announced a project focused on financial inclusion in East Africa.<sup>7</sup> The initiative will "focus on youth empowerment, the gender gap in Africa, and financing micro, small and medium-sized enterprises through responsible data capture and credit analytics."<sup>8</sup>
- A January 2017 article noted that the mVisa payment system, led by KCB Bank Rwanda, was close to being rolled out and was expected to help reduce transaction costs and expand digital financial inclusion.<sup>9</sup>
- An October 2016 article explained that Rwanda had instituted the RSwitch, the first payment switch in East and Central Africa to achieve interoperability.<sup>10</sup>
- According to the Economist Intelligence Unit's 2016 Global Microscope report, the government of Rwanda set a goal to have all savings and credit cooperatives' operations digitized by the end of 2016.<sup>n</sup>

- Develop a comprehensive financial consumer protection framework
- · Provide updates on the status of digitization across savings and credit cooperatives
- Share updates regarding the SIKASHI effort and identify key learnings from the project



# **SOUTH AFRICA**



Joined the Alliance for Financial Inclusion in 2010<sup>1</sup>

#### Selected financial inclusion highlights

- Among the top five-scoring countries overall on the 2017 FDIP scorecard<sup>2</sup>
- Tied for the highest mobile capacity score among the FDIP countries<sup>3</sup>
- Initiated a Standing Committee on Finance in parliament to address financial sector transformation issues, including inclusion and access<sup>4</sup>

#### Recent updates

- A report by The Boston Consulting Group (BCG) published in April 2017 found that while 70 percent
  of the population in South Africa has access to a transactional bank account, usage is quite low.<sup>5</sup>
  Moreover, the savings rate in South Africa is among the lowest in the world.<sup>6</sup> However, experts note
  that this rate does not capture the significant role of informal savings.<sup>7</sup>
- One of the positive findings of the BCG report was that financial inclusion percentages are relatively consistent among men and women.<sup>8</sup> This finding related to the "gender gap" in financial inclusion was supported by a recent FinMark trust report that found a positive gender gap of six percent between women and men in terms of bank account holdings, which can be explained in part by the large adoption of social grants among women.<sup>9</sup>
- The Financial Sector Regulation Bill, which features financial inclusion among its objectives, was approved by South Africa's parliament in the fall of 2015 and was expected to be enacted by the end of 2016 or early 2017 after it was signed by President Zuma.<sup>10</sup>
- The Economist Intelligence Unit noted in its 2016 report that the "ongoing shift from rules-based to risk-based supervision is already having an impact on financial inclusion, as banks and other financial service providers become more risk-averse and therefore less likely to extend credit to low-income consumers, who are deemed higher risk."<sup>11</sup>
- In July 2016, the South African Reserve Bank approved the SA Post Office's first level application for a banking license for Postbank, which will enable it to offer banking services beyond the transactional and savings products it currently offers.<sup>12</sup>
- Fintech is increasingly prevalent in South Africa, and a fintech regulatory framework is expected to form part of the Conduct of Financial Institutions Bill in 2017.<sup>13</sup>



### **South Africa**



#### Next steps

 Monitor the rise in unsecured lending and consider how to best mitigate the risk of over-indebtedness, without precluding low-income consumers from accessing the services they need to support their well-being

- Amplify opportunities for multi-stakeholder discussions on pathways to advancing sustained engagement with and equity in the financial sector, including the possible formalization of select informal financial service providers
- Ensure any modifications to anti-money laundering/countering the financing of terrorism guidelines and policies reflect a risk-proportionate approach

39



# TANZANIA

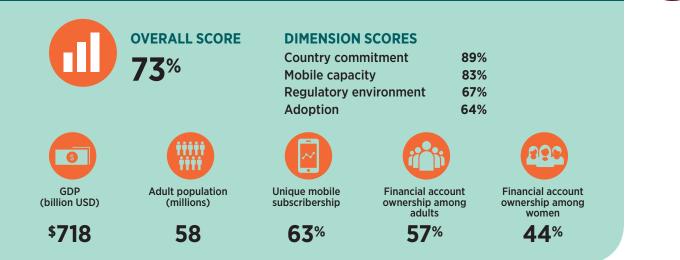


#### Recent updates

- At the World Economic Forum on Africa held from May 3–5, 2017, the World Economic Forum, in collaboration
  with the central banks of Kenya, Rwanda, and Tanzania announced a project focused on financial inclusion in
  East Africa.<sup>5</sup> The initiative will "focus on youth empowerment, the gender gap in Africa, and financing micro,
  small and medium-sized enterprises through responsible data capture and credit analytics."<sup>6</sup>
- A November 2016 article highlighted that the National Microfinance Bank had partnered with Tigo Tanzania and Airtel Money to help address liquidity management problems among agents.<sup>7</sup>
- A report<sup>8</sup> published in October 2016 titled "Tanzania Postal Bank: Digital Financial Inclusion Through Popote" noted that, among other lessons learned, there is an advantage to leveraging several channels (e.g., mobile banking and agency banking) and device options (e.g., mobile phone and point of sale devices) to fit different client segments.<sup>9</sup>
- In September 2016, the Bank of Tanzania was awarded the leadership and peer awards by the Alliance for Financial Inclusion.<sup>10</sup>
- From August 8–12, 2016, CGAP and the Toronto Centre piloted the first week-long Digital Finance Inclusion Supervision training program, in which regulators, supervisors, economists, and other key stakeholders from countries such as Tanzania—as well as several other FDIP countries such as Kenya, Malawi, Uganda, and Zambia—drafted and discussed action plans pertaining to issues such as e-money balances, interest on trust accounts, interoperability, and supervision of banks' and nonbanks' agent networks.<sup>11</sup>

- · Develop a comprehensive national financial consumer protection framework
- Continue to implement financial education and capability initiatives as part of the new National Financial Education Framework

# TURKEY



#### Formal commitment milestone

• Joined the Alliance for Financial Inclusion in 2013<sup>1</sup>

#### Selected financial inclusion highlights

- Developed a new consumer protection law in 2013<sup>2</sup>
- Launched a national financial inclusion strategy in 2014<sup>3</sup>
- Recognized by the Alliance for Financial Inclusion and Women's World Banking's March 2016 report on "Policy Frameworks to Support Women's Financial Inclusion" as including a focus on women within its comprehensive financial literacy program<sup>4</sup>

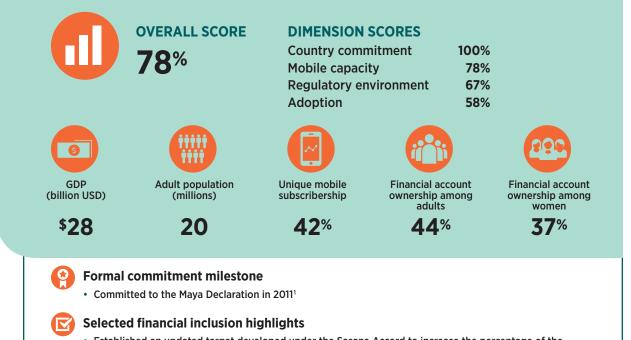
#### Recent updates

 According to the Economist Intelligence Unit's 2016 "Global Microscope" report, the action plans on financial education and financial consumer protection, which serve as the two key pillars of the government's financial inclusion strategy, are in the process of being implemented.<sup>5</sup>

- Establish inclusive agent banking guidelines to facilitate greater distribution of financial access points in underserved areas
- Consider developing quantifiable financial inclusion targets to further advance the national financial inclusion strategy
- · Continue to implement the action plans on financial education and financial consumer protection



# UGANDA



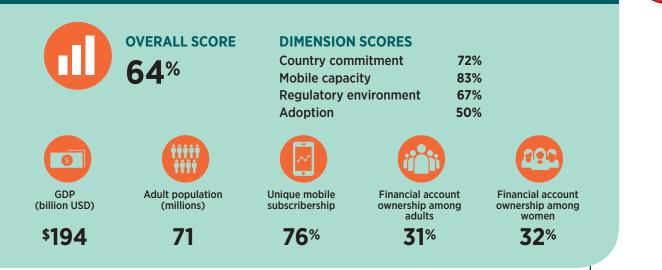
- Established an updated target developed under the Sasana Accord to increase the percentage of the adult population that is considered formally financially included from 54 percent as of 2013 to at least 70 percent by 2017<sup>2</sup>
- Created a joint working group on Mobile Money Financial Services and issued mobile money guidelines in October 2013<sup>3</sup>
- Passed and approved amendments to the 2004 Financial Institutions Act in January 2016, which enabled the formalization of agent banking<sup>4</sup>

#### Recent updates

- As highlighted by a February 2017 World Bank post, opportunities remain to strengthen financial access, usage, and education.<sup>5</sup> As noted in the post, "[u]p to 60% of adult Ugandans still keep their savings at home and in the form of assets such as animals. Moreover, a much larger share of the population, reaching more than 65%, are unable to access formal financial institutions for credit. This proportion of the population relies on informal sources of finance or their own, their families', or their friends'."<sup>6</sup>
- The Bank of Uganda received a grant from the Alliance for Financial Inclusion to support the development of a new National Strategy for Financial Inclusion, which at the time this report was prepared was expected to be launched and implemented soon.<sup>78</sup>
- A new FinScope survey is being prepared,<sup>9</sup> and results are expected in 2018.<sup>10</sup>

- Strengthen oversight of financial sector to mitigate the risk of fraud and promote consumer confidence
- Assess the findings of the latest FinScope survey, when available, and identify action items to address remaining gaps in the financial services market
- · Finalize and validate the new national financial inclusion strategy

# VIETNAM





#### Formal commitment milestone

• Joined the Better Than Cash Alliance<sup>1</sup>

#### Selected financial inclusion highlights

- Published a national microfinance development strategy in 2011<sup>2</sup>
- Granted trial licenses for mobile wallet initiatives in December 2014<sup>3</sup>
- Exhibits robust unique mobile subscribership and 3G coverage rates<sup>4</sup>

#### Recent updates

 According to the Economist Intelligence Unit's 2016 "Global Microscope" report, the Vietnam Bank for Social Policies (VBSP) commissioned a study on demand for mobile services and e-money among low-income workers and other underserved groups. The study found that the legal and technical frameworks needed to launch pilot programs are in place, so the VBSP is "working on selecting an implementation model and strategic partners to launch mobile-based banking services."<sup>5</sup>

- Amplify marketing efforts surrounding mobile money services to improve awareness among consumers
- · Develop a national financial inclusion strategy
- · Execute the mobile-based banking services implementation model



# ZAMBIA



Committed to the Maya Declaration in 2011<sup>1</sup>

#### Selected financial inclusion highlights

- The 2015 FinScope survey highlighted the role of mobile money in amplifying financial inclusion, with about 14 percent of adults having or using mobile money<sup>2</sup>
- Published the National Payment Systems Directives on Electronic Money Issuance in 2015<sup>3</sup>
- Launched the Financial Inclusion Support Framework, in conjunction with the World Bank, in November 2015<sup>4</sup>

#### Recent updates

- Zambia held Financial Literacy Week from March 27-April 2, 2017 in an effort to "educate and sensitize the general public about various topics on financial education" as part of its National Strategy on Financial Education.<sup>5</sup>
- Mobile money company Zoona was recognized at Zambia's Financial Literacy Awards for its new
  product, Zoona Sunga. The savings product, which was launched in March 2017, is accessible to
  customers at any Zoona outlet in Zambia and has no monthly charges, no minimum balance, and no
  fee to cash-in (there is a small fee to cash out).<sup>6</sup>

- Advance awareness of digital financial services such as mobile money through collaborative initiatives by representatives from the public sector, private sector, and civil society entities
- Continue to monitor adoption of mobile money services
- Fully implement branchless banking regulations

### METHODOLOGY

### **Research process**

#### **Timeline for data collection**

Selected financial inclusion developments from June 2016 through the end of May 2017 are captured in the 2017 country summaries and scorecard. While we have made every effort to ensure that the information included in this report is as complete as possible, the global financial inclusion landscape is complex and rapidly evolving. We welcome feedback on country-specific initiatives relevant to financial inclusion, as well as general feedback regarding the 2017 report and scorecard, at FDIPComments@brookings.edu.

#### **Engagement strategy**

We benefited from high levels of engagement among many of the in-country financial inclusion experts we reached out to during the consultation process for the 2017 report. We are deeply grateful for their insights regarding the financial inclusion landscape in their respective countries.

In addition to coordinating with in-country financial inclusion authorities, we engaged with a diverse array of financial sector and development experts based in the United States through in-person meetings, calls, and participation in private and public events in order to solicit their perspectives on financial inclusion trends, challenges, and opportunities.

For a list of many of the government officials, industry leaders, international finance institution representatives, and other key stakeholders who have contributed to the FDIP research effort over the previous year, please refer to the acknowledgments section of the report. In-country reviewers were provided with a list of selected financial inclusion developments tracked since spring 2016. We solicited their feedback regarding those key developments, as well as their input regarding any other salient financial inclusion updates since spring 2016 and feedback on the 2015 and 2016 FDIP research outputs more generally.

In addition to outreach to in-country experts, the FDIP team hosted a roundtable at Brookings and participated in various financial inclusion convenings. The roundtable, held in February 2017, provided an opportunity for a diverse array of public sector, private sector, and civil society representatives to explore questions situated at the intersection of cybersecurity and financial inclusion.

This discussion, as well as the FDIP team's participation in private meetings, invite-only roundtables, and public events among diverse financial inclusion entities, informed and enhanced the research process for the current report.

### **Scoring descriptions**

#### **Country commitment indicator descriptions**

- 1. National-level participation in international financial inclusion-oriented organizations or networks.
  - Description: Has the country signed the Alliance for Financial Inclusion's Maya Declaration on Financial Inclusion or joined international groups such as the Better Than Cash Alliance or the G20's Financial Inclusion Peer Learning Program?
  - Scoring: 1=No; 3=Yes
  - Sources: Information for this indicator is based on the online membership listings for the Alliance for Financial Inclusion, the Maya Declaration on Financial Inclusion, and the Better Than Cash Alliance, as well as information regarding participation in the G20's Financial Inclusion Peer Learning Program.

#### 2. Existence of a national financial inclusion strategy.

- Description: Does a comprehensive national financial inclusion strategy exist?
- Scoring: 1=No; 2=A national financial inclusion strategy is in development; 3=Yes
- Note: As noted in the Alliance for Financial Inclusion's "Financial Inclusion Strategies: Global Trends and Lessons Learnt from the AFI Network" presentation, comprehensive national financial inclusion strategies may be presented within a national financial sector development plan or as a standalone strategy.<sup>1</sup>
- Sources: Information for this indicator was primarily derived from surveys of the Alliance for Financial Inclusion's "2016 Maya Declaration Progress Report: Celebrating Five Years of Advancing Financial Inclusion;" the Alliance for Financial Inclusion Financial Inclusion Strategy Peer Learning Group's "A Timeline of Achievement" and "National Financial Inclusion Strategies: Current State of Practice" documents; the Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion;" evaluations of online content available from governmental and INGO websites; and information provided by government officials within select FDIP countries.

## 3. Existence of quantifiable financial inclusion targets.

- Description: Do formal, publicly available quantifiable goals related to financial inclusion exist at a national level?
- Scoring: 1=No; 3=Yes
- Note: While many countries have developed action items related to financial inclusion that contain general timelines for completion, this indicator specifically focuses on numerical targets.
   For the purposes of this study, macroeconomic goals, such as an increase in the percentage of

savings as GDP, and goals related solely to microfinance (in the narrow sense of microloans) were not included in our evaluation of quantifiable financial inclusion goals.

 Sources: Information for this indicator was primarily based on the Alliance for Financial Inclusion's "2016 Maya Declaration Progress Report: Celebrating Five Years of Advancing Financial Inclusion," with surveys of governmental authorities' websites, news reports, INGO websites, and correspondence with country contacts deployed as supplementary data.

#### Existence of a recent demand-side financial services survey conducted or supported by a government entity.

- Description: Has a nationally representative, demand-side financial services survey been recently conducted or supported by a government entity within the country?
- Scoring: 1=No; 3=Yes
- Note: For purposes of this study, "recent" refers to surveys published within the previous four years (i.e., surveys published prior to 2013 are not considered recent). "Conducted or supported" in this context signifies that the government either commissioned the survey or was explicitly noted as a partner institution by the lead institution conducting the survey.
- Sources: The predominant sources consulted for this indicator include the Alliance for Financial Inclusion's "2016 Maya Declaration Progress Report: Celebrating Five Years of Advancing Financial Inclusion" and the Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion." Other supplementary sources include surveys of governmental authorities' and INGO's websites, as well as correspondence with government representatives in various FDIP focus countries.

### 5. Existence of a dedicated financial inclusion body within the public sector.

- Description: Does the country have a dedicated financial inclusion body within the regulator, ministry of finance, or other governmental entity?
- Scoring: 1=No; 2=A dedicated final inclusion body is in development; 3=Yes
- Note: Where a dedicated financial inclusion body was not in place, but evidence of dedicated staff coupled with active financial inclusion initiatives was available, we awarded a score of 3.
- Sources: The primary source consulted for this indicator was the World Bank's "Financial Inclusion Strategies Database," which features more than 50 countries that have either "made formal commitments under the Alliance for Financial Inclusion's Maya Declaration or have been identified by the Financial Inclusion Strategy Peer Learning Group as having significant national strategies."<sup>2</sup> Supplementary sources include searches of governmental websites, a review of the Alliance for Financial Inclusion's "2016 Maya Declaration Progress Report: Celebrating Five Years of Advancing Financial Inclusion," and correspondence with government representatives.

# 6. Existence of a consumer protection framework regarding financial services.

- Description: Is a financial consumer protection framework in place?
- Scoring: 1=No; 2=A specialized financial consumer protection framework is in development or finalized but not yet fully implemented OR certain financial consumer protection provisions are in place; 3=A financial consumer protection framework is in effect.
- Sources: The primary source consulted for this indicator was the Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion." Supplementary sources included surveys of publicly available consumer protection regulations, news sources, and analyses from multinational organizations.

#### Mobile capacity indicator descriptions<sup>3</sup>

- 1. Market penetration with respect to unique subscribers.
  - Description: GSMA Intelligence defines this indicator as "Total subscribers in the market divided by the total population at the end of the period, expressed as a percentage." As noted by the GSMA, "[s]ubscribers differ from connections such that a unique user can have multiple connections."<sup>4</sup>
  - Scoring: 1=0-33%; 2=34-66%; 3=67-100%
  - Source: GSMA Intelligence Database, 2017.

#### 2. 3G mobile coverage by population.

- Description: "3G mobile coverage, expressed as a percentage of the total market population, at the end of the period," according to the GSMA.<sup>5</sup>
- Scoring: 1=0-33%; 2=34-66%; 3=67-100%
- Source: GSMA Intelligence Database, 2017.

#### 3. Smartphone adoption.

- Description: According to the GSMA, this indicator is defined as "[s]martphone connections expressed as a percentage share of total connections (excluding M2M). It is not calculated as smartphone connections divided by total population."<sup>6</sup>
- Scoring: 1=0-33%; 2=34-66%; 3=67-100%
- Source: GSMA Intelligence Database, 2017.

# 4. Availability of bill payments via mobile money services.

- Description: Do mobile money service providers offer bill payment services?
- Scoring: 1=No; 3=Yes
- Source: GSMA Mobile Money for the Unbanked Deployment Tracker, 2017.

# 5. Availability of international remittances via mobile money services.

 Description: Do mobile money service providers offer international remittances?

- Scoring: 1=No; 3=Yes
- Source: GSMA Mobile Money for the Unbanked Deployment Tracker, 2017.
- 6. Availability of merchant payments via mobile money services.
  - Description: Are merchant payments available via mobile money services?
  - Scoring: 1=No; 3=Yes
  - Source: GSMA Mobile Money for the Unbanked Deployment Tracker, 2017.

#### **Regulatory environment indicator descriptions**

#### 1. Agent banking.

- Description: Can banks or other formal financial institutions contract with other legal entities to serve as agents to provide financial services?
- Scoring: 1=No; 3=Yes
- Sources: Sources used to score this indicator include the Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion," surveys of country-specific legislation, news reports, INGO publications, and correspondence with in-country experts.

# 2. Inclusive ecosystem for mobile financial service deployment principals.

- Description: Are a diverse array of entities, including mobile network operators, eligible to apply for licenses or other formal approval from the regulator to lead mobile money deployments?<sup>7</sup>
- Scoring: 1=No; 3=Yes
- Sources: Scoring for this indicator is based primarily on the Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion," surveys of country-specific legislation, news reports, INGO publications, and correspondence with in-country experts.

#### 3. E-money regulations.

- Description: Have regulations, policies, or other guidance concerning electronic money (e-money) been issued?
- Scoring: 1=No e-money regulations are in place or appear to be in development; 2=E-money regulations are in development; 3=E-money regulations have been issued.
- Sources: Scoring for this indicator is primarily based on analysis from the Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion," in addition to surveys of relevant regulations on governmental websites and correspondence with government representatives.

#### 4. Mobile money platform interoperability.

- Description: Is the capacity for mobile money platform interoperability required by the regulator or other financial inclusion authority and/or are mobile money platforms actively interoperable?
- Scoring: 1=No requirements concerning the capacity for platform interoperability have been issued by the regulator, and there is no evidence of interoperability; 2=Platforms are explicitly required to have the capacity for interoperability OR efforts to develop an interoperable platform have been advanced significantly; 3=Two or more mobile money platforms are actively interoperable.
- Note: While there are numerous types of interoperability, for the purposes of this study we focus on platform interoperability, in which mobile money platforms are interconnected so that a "customer with an account with one service provider can send or receive money to or from the account of a customer with a different service provider."<sup>8</sup>
- Sources: The predominant sources consulted for this indicator were surveys of regulations on governmental websites, news articles, INGO and industry publications, and correspondence with in-country experts. This research was supplemented with surveys of the Economist Intelligence

Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion."

#### 5. Account access and usage.

- Description: Are account opening and usage requirements (e.g., know-your-customer processes and minimum balance requirements) for savings products at regulated financial institutions conducive to the adoption of these products by underserved populations?<sup>9</sup>
- Scoring: 1=No/Somewhat; 3=Yes
- Sources: The Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion" was the main resource consulted for this indicator. Correspondence with country contacts and reviews of country-specific regulations, INGO and industry reports, and news articles served as supplementary sources.

#### 6. Cash-in/cash-out at agent locations.

- Description: Are agents permitted to perform both cash-in and cash-out services within the context of an inclusive regulatory environment?<sup>10</sup>
- Scoring: 1=Agents are not permitted to perform cash-in and cash-out services; 2=Agents are permitted to perform cash-in and cash-out services, but regulations constrain the entry of certain agents into the market; 3=Agents are permitted to perform cash-in and cash-out services within the context of an inclusive regulatory environment
- Sources: The Economist Intelligence Unit's "Global Microscope 2016: The Enabling Environment for Financial Inclusion" served as the main source for this indicator, in addition to surveys of news articles, websites of industry associations and financial service providers, correspondence with in-country experts, and studies conducted by non-government entities.

#### Adoption indicator descriptions<sup>11</sup>

For each of the percentage indicators below, the scoring ranges have been normalized since the range of data

across all countries included in this study spanned a relatively narrow subrange. We normalized the data by taking the difference between the highest and lowest values across all countries in this study, and then dividing that range into three equal subranges, corresponding respectively to a score of 1, 2, and 3. For example, using this approach, for an indicator in which the raw data ranged from 50 percent for the worst-performing country to 79 percent for the best-performing country, countries with raw data scores from 50 percent to 59 percent would receive a "1," countries with raw data scores from 60 percent to 69 percent would receive a "2." and countries with raw data scores from 70 percent to 79 percent would receive a "3."<sup>12</sup>

The specific indicators we used to measure adoption are the following:

## 1. Formal financial institution account penetration among lower-income adults.

- Description: The 2014 Global Findex description for the data used for this indicator is "percentage of respondents who report having an account (by themselves or together with someone else) at a bank or another type of financial institution; having a debit card in their own name; receiving wages, government transfers, or payments for agricultural products into an account at a financial institution in the past 12 months; paying utility bills or school fees from an account at a financial institution in the past 12 months; or receiving wages or government transfers into a card in the past 12 months (income, poorest 40%, % age 15+)."
- Scoring: 1=5-22%; 2=23-40%; 3=41-58%

## 2. Formal financial institution account penetration among women.

 Description: The 2014 Global Findex description for the data used for this indicator "denotes the percentage of respondents who report having an account (by themselves or together with someone else) at a bank or another type of financial institution; having a debit card in their own name; receiving wages, government transfers, or payments for agricultural products into an account at a financial institution in the past 12 months; paying utility bills or school fees from an account at a financial institution in the past 12 months; or receiving wages or government transfers into a card in the past 12 months (female, % age 15+)."

- Scoring: 1=3-24%; 2=25-47%; 3=48-69%

#### 3. Borrowing from a financial institution.

- Description: The 2014 Global Findex description for the data used for this indicator is the percentage of adults who "borrowed any money in the past 12 months (by themselves or together with someone else) from a bank or another type of financial institution. This does not include the use of credit cards."
- Scoring: 1=2-7%; 2=8-14%; 3=15-20%

#### 4. Saving at a financial institution.

- Description: The 2014 Global Findex description for the data used for this indicator is the percentage of respondents who "report saving or setting aside any money in the past 12 months by using an account at a bank or another type of financial institution (% age 15+)."
- Scoring: 1=3-12%; 2=13-23%; 3=24-33%

#### 5. Debit card use.

- Description: The 2014 Global Findex description for the data used for this indicator is "the percentage of respondents who report using their own debit card directly to make a purchase in the last 12 months (% age 15+)."
- Scoring: 1=0-13%; 2=14-28%; 3=29-42%

#### 6. Credit card use.

- Description: The 2014 Global Findex description for the data used for this indicator is "the percentage of respondents who report using their own credit card in the past 12 months (% age 15+)."
- Scoring: 1=0-9%; 2=10-19%; 3=20-29%.

## 7. Percentage of adults utilizing online bill payments and purchases.

- Description: The 2014 Global Findex description for the data used for this indicator is the percentage of adults who reported "paying bills or making purchases online using the Internet in the past 12 months (% age 15+)."
- Scoring: 1=0-5%; 2=6-13%; 3=14-19%
- 8. Mobile money account penetration among lower-income adults.
  - Description: The 2014 Global Findex description for the data used for this indicator is the "percentage of respondents who report personally using a mobile phone to pay bills or to send or receive money through a GSM Association (GSMA) Mobile Money for the Unbanked (MMU) service in the past 12 months; or receiving wages, government transfers, or payments for agricultural products through a mobile phone in the past 12 months (income, lowest 40%, % age 15+)."
  - Scoring: 1=0-17%; 2=18-35%; 3=36-53%

# 9. Mobile money account penetration among women.

- Description: The 2014 Global Findex description for the data used for this indicator is the percentage of women who "personally us[ed] a mobile phone to pay bills or to send or receive money through a mobile money service in the previous 12 months or who received wages, government transfers, or payments for agricultural products through a phone in the previous 12 months."
- Scoring: 1=0-17%; 2=18-37%; 3=38-55%

## 10. Mobile phone used to receive salary or wages (among recent wage-earners).<sup>13</sup>

 Description: The 2014 Global Findex description for the data used for this indicator reads "among respondents who reported receiving any money from an employer in the past 12 months in the form of a salary or wages for doing work, percentage of adults who received salary or wages through a mobile phone in the last 12 months."

- Scoring: 1=0-7%; 2=8-17%; 3=18-25%

#### Mobile phone used to make utility payments (among adults regularly making utility bill payments).<sup>14</sup>

 Description: The 2014 Global Findex description for the data used for this indicator "denotes, among respondents reporting personally making regular payments in the past 12 months for water, electricity, or trash collection, the percentage who made these payments through a mobile phone (% paying utility bills, age 15+)."

- Scoring: 1=0-17%; 2=18-37%; 3=38-55%

#### 12. Frequency of account usage.<sup>15</sup>

- Description: The 2014 Global Findex description for the data used for this indicator is "the percentage of respondents with an account at a bank or another type of financial institution who report that money is withdrawn from their account three or more times in a typical month (% with an account, age 15+)."
- Scoring: 1=3-12%; 2=13-22%; 3=23-32%

### **APPENDIX: SCORING CHANGES**

The table below indicates the percentage point difference in countries' percentage scores between 2016 and 2017. Note that the adoption dimension is not included in the table, as the indicators and scores for that dimension remained consistent between 2016 and 2017.

Country	riangle Overall Score	riangle Country Commitment Score	riangle Mobile Capacity Score	riangle Regulatory Environment Score
Afghanistan	6	17	6	6
Bangladesh	0	0	0	0
Brazil	1	0	6	0
Chile	0	0	0	0
Colombia	-1	0	-5	0
Dominican Republic	2	11	0	0
Egypt	4	11	6	5
El Salvador	1	0	5	0
Ethiopia	1	0	5	0
Haiti	0	0	0	0
India	1	0	0	6
Indonesia	0	0	0	0
Kenya	2	0	6	0
Malawi	0	0	0	0
Mexico	5	6	11	5
Nigeria	2	0	5	6
Pakistan	0	0	0	0
Peru	3	0	16	0
Philippines	0	0	0	0
Rwanda	0	0	0	0
South Africa	0	0	0	0
Tanzania	0	0	0	0
Turkey	1	0	5	0
Uganda	0	0	0	0
Vietnam	3	11	5	0
Zambia	0	0	0	0

### ENDNOTES

- John D. Villasenor, Darrell M. West, and Robin J. Lewis, "The 2016 Brookings Financial and Digital Inclusion Project Report," The Brookings Institution, August 2016, 2, https://www.brookings. edu/wp-content/uploads/2016/07/fdip\_20160803\_project\_ report.pdf.
- 2 Ibid.
- 3 John D. Villasenor, Darrell M. West, and Robin J. Lewis, "The 2015 Brookings Financial and Digital Inclusion Project Report," The Brookings Institution, 23 August 2015, https://www.brookings. edu/research/the-2015-brookings-financial-and-digitalinclusion-project-report/.
- 4 John D. Villasenor, Darrell M. West, and Robin J. Lewis, "The 2016 Brookings Financial and Digital Inclusion Project Report," The Brookings Institution, August 2016, https://www.brookings.edu/ research/the-2016-brookings-financial-and-digital-inclusionproject-report/.
- 5 John D. Villasenor, Darrell M. West, and Robin J. Lewis, "Bridging the financial inclusion gender gap," The Brookings Institution, 1 April 2016, https://www.brookings.edu/blog/ techtank/2016/04/01/bridging-the-financial-inclusion-gendergap/.
- 6 "The Mobile Economy," GSMA, 2017, 2, https://www.gsma intelligence.com/research/?file=9e927fd6896724e7b26 f33f61db5b9d5&download.
- 7 "Financial Inclusion Department," Da Afghanistan Bank, Undated, http://dab.gov.af/en/page/about-the-bank/ departments/mortgage.
- 8 Ibid.
- 9 Ibid.
- 10 Ibid
- See https://dailynewsegypt.com/2017/05/14/establishmentfinancial-inclusion-unit-support-strengthen-financial-inclusionegypt-bassiouny/.
- 12 "Members," Better Than Cash Alliance, 2017, Accessed May 2017, https://www.betterthancash.org/members/government.
- 13 "Mexico to Accelerate Path to Financial Inclusion," The World Bank, 23 June 2016, http://www.worldbank.org/en/news/ feature/2016/06/23/mexico-to-accelerate-path-to-financialinclusion.
- 14 "Mexico Launches Comprehensive Financial Inclusion Strategy," Center for Financial Inclusion Blog, 1 July 2016, https://cfi-blog. org/2016/07/01/mexico-launches-comprehensive-financialinclusion-strategy/.
- 15 "The Mobile Economy," GSMA, 2017, 10, https://www.gsma intelligence.com/research/?file=9e927fd6896724e7b26 f33f61db5b9d5&download/.
- 16 Ibid, 10.
- 17 Ibid, 46.

- 18 "State of the Industry Report on Mobile Money," GSMA, March 2017, 6, https://www.gsma.com/mobilefordevelopment/wpcontent/uploads/2017/03/GSMA\_State-of-the-Industry-Reporton-Mobile-Money\_2016-1.pdf.
- 19 Ibid, 8.
- 20 Ibid, 34.
- 21 John Villasenor, "Smartphones for the Unbanked: How Mobile Money Will Drive Digital Inclusion in Developing Countries," The Brookings Institution, 16 September 2013, https://www. brookings.edu/research/smartphones-for-the-unbankedhow-mobile-money-will-drive-digital-inclusion-in-developingcountries/.
- 22 "BiM The First Fully-Interoperable Mobile Money Platform: Now Live in Peru," Center for Financial Inclusion Blog, 17 February 2016, https://cfi-blog.org/2016/02/17/bim-the-first-fullyinteroperable-mobile-money-platform-now-live-in-peru/.
- 23 Pablo Anton Diaz and Tomas Conde, "Modelo Peru," Center for Financial Inclusion, January 2017, http://www. centerforfinancialinclusion.org/storage/documents/Modelo\_ Peru\_CFI\_IIF\_Brief\_2017.01.30-Final.pdf.
- 24 Ibid
- 25 "State of the Industry Report on Mobile Money," GSMA, March 2017, 34, https://www.gsma.com/mobilefordevelopment/wpcontent/uploads/2017/03/GSMA\_State-of-the-Industry-Reporton-Mobile-Money\_2016-1.pdf.
- 26 Robert Cull, Tilman Ehrbeck, and Nina Holle, "Financial Inclusion and Development: Recent Impact Evidence," Consultative Group to Assist the Poor, 29 April 2014, http://www.cgap.org/ publications/financial-inclusion-and-development-recentimpact-evidence.
- 27 James Manyika, Susan Lund, Marc Singer, Olivia White, and Chris Berry, "Digital Finance for All: Powering Inclusive Growth in Emerging Economies," McKinsey & Company, September 2016, http://www.mckinsey.com/-/media/McKinsey/Global%20 Themes/Employment%20and%20Growth/How%20digital%20 finance%20could%20boost%20growth%20in%20emerging%20 economies/MG-Digital-Finance-For-All-Full-report-September-2016.ashx.
- 28 Leora Klapper, Mayada El-Zoghbi, and Jake Hess, "Achieving the Sustainable Development Goals," Consultative Group to Assist the Poor, 22 April 2016, http://www.cgap.org/publications/ achieving-sustainable-development-goals.
- 29 "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration.
- 30 "Celebrating Five Years of Advancing Global Financial Inclusion," Alliance for Financial Inclusion, August 2016, 3, http://www. afi-global.org/sites/default/files/publications/2016-08/2016%20 Maya%20Progress%20Report-2.pdf.
- 31 Ibid, 4.

- 32 "Seizing the Moment: On the Road to Financial Inclusion," Center for Financial Inclusion, October 2013, 19, http://www. centerforfinancialinclusion.org/publications-a-resources/ browse-publications/555-seizing-the-moment-on-the-roadto-financial-inclusion.
- 33 "Responsible Finance: Financial Capability and Consumer Protection," The World Bank, 2017, http://responsiblefinance. worldbank.org/publications/financial-capability.
- 34 Julia Arnold and Elisabeth Rhyne, "A Change in Behavior: Innovations in Financial Capability," Center for Financial Inclusion, April 2016, https://centerforfinancialinclusionblog. files.wordpress.com/2016/04/a-change-in-behavior-final.pdf.
- 35 Ibid.
- 36 "AFI Data Portal," Alliance for Financial Inclusion, 2017, https:// www.afi-dataportal.org/.
- 37 "Blurred Lines: How FinTech is shaping Financial Services," PwC, 3, March 2016, https://www.pwc.com/gx/en/advisory-services/ FinTech/pwc-fintech-global-report.pdf.
- 38 Ibid
- 39 Dong He et. al., "Fintech and Financial Services: Initial Considerations," International Monetary Fund, 19 June 2017, 5, https://www.imf.org/en/Publications/Staff-Discussion-Notes/ Issues/2017/06/16/Fintech-and-Financial-Services-Initial-Considerations-44985.
- 40 "Financial Stability Implications from FinTech," Financial Stability Board, 27 June 2017, 8, http://www.fsb.org/wp-content/ uploads/R270617.pdf.
- 41 "Blurred Lines: How FinTech is shaping Financial Services," PwC, 21, March 2016, https://www.pwc.com/gx/en/advisory-services/ FinTech/pwc-fintech-global-report.pdf.
- 42 Ibid, 8.
- 43 Ibid, 8, 12.
- 44 "Redrawing the lines: FinTech's growing influence on Financial Services," PwC, 2017, https://www.pwc.com/gx/en/industries/ financial-services/assets/pwc-global-fintech-report-2017.pdf.
- 45 Sonja Kelly, Dennis Ferenzy, Allyse McGrath, "How Financial Institutions and Fintechs Are Partnering for Inclusion: Lessons from the Frontlines," Institute of International Finance and Center for Financial Inclusion, July 2017, 9, http://www. centerforfinancialinclusion.org/storage/CFI\_IIF\_FI\_Fintech\_ Partnerships\_Report\_2017.07.pdf.
- 46 Andrew Meola, "The Fintech Report 2016: Financial industry trends and investments," *Business Insider, 14 December 2016,* http://www.businessinsider.com/the-fintech-report-2016financial-industry-trends-and-investment-2016-12.
- 47 "Redrawing the lines: FinTech's growing influence on Financial Services," PWC, 2017, 3, https://www.pwc.com/gx/en/ industries/financial-services/assets/pwc-global-fintechreport-2017.pdf.
- 48 Sonja Kelly, Dennis Ferenzy, Allyse McGrath, "How Financial Institutions and Fintechs Are Partnering for Inclusion: Lessons from the Frontlines," Institute of International Finance and Center for Financial Inclusion, July 2017, 33, http://www. centerforfinancialinclusion.org/storage/CFI\_IIF\_FI\_Fintech\_ Partnerships\_Report\_2017.07.pdf.
- 49 Ibid, 6.
- 50 Pavel Shoust, "Regulators and Fintech: influence is mutual?" Russian Electronic Money Association, 21 September 2016, http://pubdocs.worldbank.org/en/770171476811898530/ Session-4-Pavel-Shoust-Regulatory-Sandboxes-21-09-2016.pdf.

- 51 "Financial Stability Implications from FinTech," Financial Stability Board, 27 June 2017, 4, http://www.fsb.org/wp-content/ uploads/R270617.pdf.
- 52 John Villasenor, "Ensuring Cybersecurity In Fintech: Key Trends And Solutions," *Forbes*, 25 August 2016, https://www.forbes. com/sites/johnvillasenor/2016/08/25/ensuring-cybersecurityin-fintech-key-trends-and-solutions/#49f17c0335fd.
- 53 Redrawing the lines: FinTech's growing influence on Financial Services," PwC, 2017, 12, https://www.pwc.com/gx/en/ industries/financial-services/assets/pwc-global-fintechreport-2017.pdf.
- 54 "Financial Stability Implications from FinTech," Financial Stability Board, 27 June 2017, 2, http://www.fsb.org/wp-content/ uploads/R270617.pdf.
- 55 Robin Lewis, John Villasenor and Darrell West, "Advancing cybersecurity and inclusivity within the global financial ecosystem," *TechTank Blog*, 19 April 2017, https://www. brookings.edu/blog/techtank/2017/04/19/brookingsroundtable-readout-advancing-cybersecurity-and-inclusivitywithin-the-global-financial-ecosystem/.
- 56 Ibid.
- 57 Ibid.
- 58 John Villasenor, "Ensuring Cybersecurity In Fintech: Key Trends And Solutions," *Forbes*, 25 August 2016, https://www.forbes. com/sites/johnvillasenor/2016/08/25/ensuring-cybersecurityin-fintech-key-trends-and-solutions/#49f17c0335fd.

#### **AFGHANISTAN ENDNOTES**

- See the World Bank's World Development Indicators data for GDP at market prices (current USD) as of 2015, available at http://data.worldbank.org/data-catalog/world-developmentindicators. Please refer to this source for the GDP figures listed in the other country profiles within this report.
- 2 Adult population figures for individuals aged 15 and older for 2015 were calculated using data from the World Bank's World Development Indicators database, available at http://data. worldbank.org/data-catalog/world-development-indicators. Please refer to this source for the adult population figures listed in the other country profiles within this report.
- 3 See the GSMA's "GSMA Intelligence" database, available (with subscription) at https://gsmaintelligence.com. Figures reflect Q1 2017 GSMA Intelligence data. Please refer to this source for the unique mobile subscribership figures listed in the other country profiles within this report. See the methodology section of this report for the GSMA's definition of unique mobile subscribership.
- 4 See the World Bank's 2014 Global Financial Inclusion (Global Findex) database, available at http://datatopics.worldbank.org/ financialinclusion/. Please refer to this source for the account ownership figures listed in the other country profiles within this report.
- 5 See the World Bank's 2014 Global Financial Inclusion (Global Findex) database, available at http://datatopics.worldbank.org/ financialinclusion/. Please refer to this source for the women's account ownership figures listed in the other country profiles within this report.
- 6 "Member Institutions," Alliance for Financial Inclusion, 20 June 2017, http://www.afi-global.org/members/. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 7 "Government of Afghanistan Joins Better Than Cash Alliance," Better Than Cash Alliance, 22 January 2013, https://www. betterthancash.org/news/media-releases/government-ofafghanistan-joins-better-than-cash-alliance.

- 8 "Money Service Providers Regulation," Da Afghanistan Bank, 2008, http://www.fintraca.gov.af/assets/pdf/money\_service\_ providers\_regulation.pdf.
- 9 Email correspondence with representative of FAIDA on July 31, 2015.
- 10 "Afghanistan's Government will Strengthen the Electronic Payment System," USAID, 26 October 2015, https://www. usaid.gov/afghanistan/news-information/press-releases/ afghanistan%E2%80%99s-government-will-strengthenelectronic.
- 11 "Press Release: Afghanistan Mobile Money Public Awareness Campaign," USAID, 22 February 2016, https://www.usaid.gov/ afghanistan/news-information/press-releases/ afghanistan-mobile-money-public-awareness-campaign.
- 12 "Financial Inclusion Department," Da Afghanistan Bank, 2017, http://dab.gov.af/en/page/about-the-bank/departments/ mortgage.
- 13 "Press Release: SmartVista empowers entire Afghanistan national payment system," BPC Group, 30 March 2016, http://www.bpcbt.com/news/press-releases/smartvistaempowersentire-afghanistan-national-payment-system.
- 14 "Mobile money takes off slowly in Afghanistan," Transfer To, October 2016, https://www.transfer-to.com/news/1053/ Mobile-money-takes-off-slowly-in-Afghanistan-.
- 15 Ibid.

#### **BANGLADESH ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Members," Better Than Cash Alliance, 2017, Accessed May 2017, https://www.betterthancash.org/members/government.
- 3 "Financial Inclusion Department," Bangladesh Bank, Undated, https://www.bb.org.bd/aboutus/dept/dept\_details.php.
- 4 See https://www.bb.org.bd/mediaroom/circulars/smespd/ jan072016smespd01.pdf. Link and information provided by a representative of Bangladesh Bank on April 28, 2016.
- 5 "Bangladesh recognised for financial inclusion," *The Daily Star*, 5 May 2017, http://www.thedailystar.net/business/bangladeshrecognised-financial-inclusion-1400830.
- 6 "Agent Banking Activities: January-March 2017,"Bangladesh Bank, Undated, https://www.bb.org.bd/pub/quaterly/agent\_ banking/jan\_mar2017.pdf.
- 7 "Report on Financial Inclusion (10, 50 and 100 taka account)," Bangladesh Bank, March 2017, https://www.bb.org.bd/pub/ quaterly/financial\_inclution\_report/mar2017.pdf.
- 8 Email communication with a representative of Bangladesh Bank on August 17, 2017.

#### **BRAZIL ENDNOTES**

 "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016. 2 "National Financial Inclusion Strategies: Current State of Practice," Alliance for Financial Inclusion, October 2015, http:// www.afi-global.org/sites/default/files/publications/fisplg-state\_ of\_practice.pdf. 55

- 3 "Relatório de Inclusão Financeira: Número 3," Banco Central do Brasil, 2015, https://www.bcb.gov.br/Nor/relincfin/RIF2015.pdf. An English translation of the document, published in May 2017, is available here: http://www.bcb.gov.br/Nor/relincfin/RIF2015EN. pdf.
- 4 "Brasil's unique approach to financial inclusion highlighted during 6th International Week of Financial Citizenship," Alliance for Financial Inclusion, 6 December 2016, http://www.afi-global. org/news/2016/12/brasils-unique-approach-financial-inclusionhighlighted-during-6th-international-week.
- 5 Email communication with a representative of the Banco Central do Brasil on August 16, 2017. See http://www.bcb.gov.br/ptbr/#!/c/BCMAIS/.
- 6 "Sobre o Evento," Banco Central do Brasil, Undated, https:// cidadaniafinanceira.bcb.gov.br/forum/sobre.
- 7 Email communication with a representative of the Banco Central do Brasil on August 16, 2017. See https://cidadaniafinanceira. bcb.gov.br/forum/Paginas/plano-fortalecimento-cidadaniafinanceira.aspx.
- 8 "Série Cidadania Financeira, "Banco Central do Brasil, September 2016, http://www.bcb.gov.br/Nor/relincfin/serie\_ cidadania\_financeira\_3\_uso\_qualidade\_servicos.pdf.
- 9 "Financial Citizenship Report," Banco Central do Brasil, August 2016, http://www.afi-global.org/sites/default/files/ publications/2016-08/financial\_citizenship\_report\_central\_ bank\_brazil.pdf.
- 10 Email communication with a representative of the Banco Central do Brasil on August 18, 2017. See http://www.bcb.gov.br/ptbr/#!/n/SERIESTEMPORAIS.

#### **CHILE ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 J.P. Palacios, "Gobierno anuncia creación del Consejo Nacional de Inclusión Financiera," 7 March 2014, http://www.latercera. com/noticia/gobierno-anuncia-creacion-del-consejo-nacionalde-inclusion-financiera/.
- 3 2014 Global Financial Inclusion database (Global Findex), The World Bank, 2015, http://datatopics.worldbank.org/ financialinclusion/.
- 4 "The Value of Sex-Disaggregated Data," The Global Banking Alliance for Women, Inter-American Development Bank, and Data2X, 2015, 24, http://www.gbaforwomen.org/download/ draft-report-measuring-womens-financial-inclusion/.
- 5 "2nd Conference on Banking Development, Stability and Sustainability," SBIF, Undated, http://conference.sbif.cl/2016/ index.html.
- 6 "Encuesta de medición de capacidades financieras en los países andinos: Chile 2016," Development Bank of Latin America, December 2016, http://scioteca.caf.com/handle/123456789/985.
- 7 "Global Microscope 2016: The Enabling Environment for Financial Inclusion," The Economist Intelligence Unit, 2016, 30, http://www.centerforfinancialinclusion.org/storage/documents/ EIU\_Microscope\_2016\_WEBr2\_2016.11.03.pdf.

#### **COLOMBIA ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Financial Inclusion: A Path to Empowerment and Opportunity," United Nations Secretary-General's Special Advocate for Inclusive Finance for Development, September 2014, 5, https:// www.unsgsa.org/files/7914/1115/8105/93735\_UNDP\_Web-2.pdf.
- 3 Xavier Gine, Nidia Garcia, and Jose Gomez-Gonzalez, "Financial Information in Colombia," Banco de la Republica, Colombia, 2017, 4, http://www.banrep.gov.co/docum/Lectura\_finanzas/pdf/ be\_984.pdf.
- 4 Jose Sanin, "Understanding the new mobile money regulation in Colombia: An interview with Maria Galindo of the Colombian Financial Regulation Agency," GSMA, 17 September 2015, https://www.gsma.com/mobilefordevelopment/programme/ mobile-money/understanding-the-new-mobile-moneyregulation-in-colombia-an-interview-with-maria-galindo-of-thecolombian-financial-regulation-agency.
- 5 Email communication with a representative of Banca de las Oportunidades on August 14, 2017. See http:// bancadelasoportunidades.gov.co/es/programas?tid%5B11%5D =11&tid%5B12%5D=12&tid%5B13%5D=13&tid%5B14%5D=14&tid\_ 1%5B18%5D=18.
- 6 Jared Wade, "Banco de Bogota Plans to Bring Its 'Financial Inclusion' Program to 50 More Municipalities in 2017," Finance Colombia, 17 April 2017, http://www.financecolombia.com/ banco-de-bogota-plans-bring-financial-inclusion-program-50-municipalities-2017/.
- 7 "Using Electronic Payments to Expand Financial Inclusion in Colombia," Grameen Foundation, 30 June 2016, http://www. grameenfoundation.org/press-releases/using-electronicpayments-expand-financial-inclusion-colombia.

#### DOMINICAN REPUBLIC ENDNOTES

- 1 "Members," Better Than Cash Alliance, 2017, Accessed May 2017, https://www.betterthancash.org/members/government.
- 2 Claire Scharwatt, Arunjay Katakam, Jennifer Frydrych, Alix Murphy, and Nika Naghavi, "2014 State of the Industry: Mobile Financial Services for the Unbanked," GSMA, 14, https:// www.gsma.com/mobilefordevelopment/wp-content/ uploads/2015/03/SOTIR\_2014.pdf.
- 3 "Global Microscope 2015: The Enabling Environment for Financial Inclusion," Economist Intelligence Unit, December 2015, 73, https://www.eiu.com/public/topical\_report. aspx?campaignid=MicroscopeDec2015.
- 4 Email correspondence with representatives of the Banco Central de la República Dominicana on June 6, 2016.
- 5 "Members," Better Than Cash Alliance, 2017, https://www. betterthancash.org/members/government. Note that specific dates regarding Better Than Cash Alliance commitments were last accessed in May 2017.
- 6 "Digital transformation for greater financial inclusion," World Finance, 4 July 2016, https://www.worldfinance.com/banking/ digital-transformation-for-greater-financial-inclusion.

#### EGYPT ENDNOTES

- "Member Institutions," Alliance for Financial Inclusion, 20 June 2017, http://www.afi-global.org/members/. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 See the downloadable Excel document associated with the Economist Intelligence Unit's "Global Microscope 2015: The Enabling Environment for Financial Inclusion" report, available at https://www.eiu.com/public/topical\_report. aspx?campaignid=MicroscopeDec2015.
- 3 "Micro Finance," Egyptian Financial Supervisory Authority, 2014, http://www.efsa.gov.eg/content/efsa\_en/micro\_pages\_en/ main\_micro\_page\_en.htm.
- 4 See http://www.dailynewsegypt.com/2017/05/14/ establishment-financial-inclusion-unit-support-strengthenfinancial-inclusion-egypt-bassiouny/.
- 5 See http://dailynewsegypt.com/2017/05/08/ebi-organises-9thannual-conference-enhancing-financial-inclusion-egyptianbanking-sector/.
- 6 Ali Ahmed, "Egypt central bank plans launch new unit for financial inclusion," Amwal Al Ghad, 12 April 2017, http:// en.amwalalghad.com/business/banks/56260-egypt-centralbank-plans-launch-new-unit-for-financial-inclusion.html.
- 7 Ibid.
- 8 "State of the Industry Report on Mobile Money," GSMA, 2017, https://www.gsma.com/mobilefordevelopment/wp-content/ uploads/2017/03/GSMA\_State-of-the-Industry-Report-on-Mobile-Money\_2016-1.pdf.

#### **EL SALVADOR ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 Mireya Almazán and Jennifer Frydrych, "Mobile financial services in Latin America & the Caribbean: State of play, commercial models, and regulatory approaches," GSMA, May 2015, 12, https://www.gsma.com/mobilefordevelopment/wp-content/ uploads/2015/09/2015\_GSMA\_Mobile-financial-services-in-Latin-America-the-Caribbean.pdf.
- 3 "Asamblea Legislativa aprueba Ley para Facilitar la Inclusión Financiera," [English translation by Google Translate], 19 August 2015, Banco Central de Reserva de El Salvador, http://www.bcr.gob.sv/esp/index.php?option=com\_ k2&view=item&id=666:asamblea-legislativa-aprueba-leypara-facilitar-la-inclusi%C3%B3n-financiera&Itemid=168.
- 4 "Celebrating Five Years of Advancing Global Financial Inclusion," Alliance for Financial Inclusion, August 2016, 31, http://www. afi-global.org/sites/default/files/publications/2016-08/2016%20 Maya%20Progress%20Report-2.pdf.
- 5 "Ley Para Facilitar La Inclusion Financiera," Banco Central de Reserva de El Salvador, Undated, http://www.bcr.gob.sv/ bcrsite/uploaded/content/category/486974882.pdf.
- 6 Jennifer Frydrych, "Regulation in El Salvador and Honduras: On the Brink of Enabling," GSMA, 21 September 2016, https://www. gsma.com/mobilefordevelopment/programme/%20mobilemoney/regulation-in-el-salvador-and-honduras-on-the-brinkof-enabling.

7 "Celebrating Five Years of Advancing Global Financial Inclusion," Alliance for Financial Inclusion, August 2016, 31, http://www. afi-global.org/sites/default/files/publications/2016-08/2016%20 Maya%20Progress%20Report-2.pdf.

#### **ETHIOPIA ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "2015 Maya Declaration Progress Report: Commitments into Action," Alliance for Financial Inclusion, 2015, 20, http://www. afi-global.org/sites/default/files/publications/2015\_maya\_ report\_rev.1\_low\_res.pdf.
- 3 "Expanding Access to Financial Services through New Technological Channels in El Salvador," The World Bank, 21 October 2014, http://www.worldbank.org/en/ results/2014/10/21/xpanding-access-to-financial-servicesthrough-new-technological-channels-in-el-salvador.
- 4 Ibid
- 5 "HomeSend, Mastercard Aim to Transform the \$3bn Remittance Industry in Ethiopia," *Business Wire*, 21 September 2016, https:// sports.yahoo.com/news/homesend-mastercard-aim-transform-3bn-160500827.html.
- 6 Jake Bright, "McKinsey says digital finance adoption could add trillions to high growth economies," *Techcrunch*, 21 September 2016, https://techcrunch.com/2016/09/21/mckinsey-saysdigital-finance-adoption-could-add-trillions-to-high-growtheconomies/.
- 7 "Celebrating Five Years of Advancing Global Financial Inclusion," Alliance for Financial Inclusion, August 2016, 31, http://www. afi-global.org/sites/default/files/publications/2016-08/2016%20 Maya%20Progress%20Report-2.pdf.

#### **HAITI ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 See the downloadable Excel document associated with the Economist Intelligence Unit's "Global Microscope 2015: The Enabling Environment for Financial Inclusion" report, available at https://www.eiu.com/public/topical\_report. aspx?campaignid=MicroscopeDec2015.
- 3 Stratégie Nationale d'Inclusion Financière," Banque de la République d'Haiti (in collaboration with the World Bank), Undated, http://www.brh.net/documents/strategie\_inclusion\_ fin.pdf.
- 4 Email correspondence with a representative of the World Bank on May 4, 2016.
- 5 "The Global Microscope 2016: The enabling environment for financial inclusion," EIU (Economist Intelligence Unit), 2016, 32, http://www.centerforfinancialinclusion.org/storage/documents/ EIU\_Microscope\_2016\_English\_web.pdf.

#### **INDIA ENDNOTES**

- "Member Institutions," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/members/. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Pradhan Mantri Jan Dhan Yojana," PMJDY, Undated, Accessed May 2016, https://www.pmjdy.gov.in/about.
- 3 "Members," Better Than Cash Alliance, 2017, Accessed May 2017, https://www.betterthancash.org/members/government.
- 4 "RBI grants 'in-principle' approval to 11 Applicants for Payments Banks," Reserve Bank of India, 19 August 2015, https://www.rbi. org.in/Scripts/BS\_PressReleaseDisplay.aspx?prid=34754.
- 5 Bl India Bureau, "How viable are payments banks in India," Business Insider India, 28 May 2017, http://www. businessinsider.in/How-viable-are-payments-banks-in-India/ articleshow/58878021.cms.
- 6 "Demonetization in India Is Causing More than Economic Harm," Center for Financial Inclusion, 25 November 2016, https://cfiblog.org/2016/11/25/demonetization-in-india-is-causing-morethan-economic-harm/.
- 7 Ibid.
- 8 Leena Datwani, "India's Push for Financial Inclusion," Consultative Group to Assist the Poor, 2 February 2017, http://www.cgap.org/publications/india%E2%80%99spush-financial-inclusion.
- 9 "Demonetization in India Is Causing More than Economic Harm," Center for Financial Inclusion, 25 November 2016, https://cfiblog.org/2016/11/25/demonetization-in-india-is-causing-morethan-economic-harm/.
- 10 Ibid.
- 11 "Demonetisation won't have lasting benefits: Larry Summers," The Hindu, 2 December 2016, http://www.thehindu.com/ business/Economy/Demonetisation-won%E2%80%99thave-lasting-benefits-Larry-Summers/article16721441. ece?ref=topnavwidget.
- 12 Email communication with independent consultant on June 26, 2017.
- 13 "State of the Industry Report on Mobile Money," GSMA, 2017, https://www.gsma.com/mobilefordevelopment/wp-content/ uploads/2017/03/GSMA\_State-of-the-Industry-Report-on-Mobile-Money\_2016-1.pdf.

#### **INDONESIA ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 Grace D. Amianti, "OJK invites more players to join branchless banking program," *The Jakarta Post*, 17 May 2016, http://www. thejakartapost.com/news/2016/01/05/ojk-invites-more-playersjoin-branchless-banking-program.html.
- 3 Gunnar Camner, "Snapshot: Implementing Mobile Money Interoperability in Indonesia," GSMA, 2013, 5, https://www.gsma. com/mobilefordevelopment/wp-content/uploads/2013/10/ Implementing-mobile-money-interoperability-in-Indonesia.pdf.
- 4 Yunnie Marzuki, "Survey highlights risks to Indonesian consumers in using digital financial services," *Digital News Asia*, 26 May 2017, https://www.digitalnewsasia.com/digital-economy/ survey-highlights-risks-indonesian-consumers-using-digitalfinancial-services.

- 5 Ghiyazuddin Mohammad and Alfa G. Pelupessy, "Emerging Risks and Customer Protection in Digital Financial Services in Indonesia," MicroSave, 15 May 2017, http://www.microsave. net/resource/emerging\_risks\_and\_customer\_protection\_ in\_digital\_financial\_services\_in\_indonesia.
- 6 "Indonesia Wins 2017 Global Inclusion Award," Netral News, 6 May 2017, http://www.en.netralnews.com/news/business/ read/5282/indonesia.wins.2017.global.inclusion.award.
- 7 Prima Wirayani, "Financial Inclusion among Indonesians improves," *The Jakarta Post*, 16 January 2017, http://www. thejakartapost.com/news/2017/01/16/financial-inclusionamong-indonesians-improves.html.
- 8 UNSGSA, "Jumpstarting Financial Inclusion in Indonesia: The power of technology, strategy, regulation, and customercentricity," 30 August 2016, https://www.unsgsa.org/resources/ speeches/jumpstarting-financial-inclusion-indonesia-powertechnology/.
- 9 Anisa Menur A. Maulani, "Consumer protection is the core of the new fintech guideline: Indonesia's financial services authority," E27 (Entrepreneurs 27), 24 August 2016, https://e27.co/ level-playing-field-consumer-protection-to-be-the-center-ofupcoming-fintech-industry-guideline-indonesias-ojk-20160824/.
- 10 Ina Parlina, "Indonesia promotes financial inclusion with new strategy," *The Jakarta Post*, 18 November 2016, http://www. thejakartapost.com/news/2016/11/18/indonesia-promotesfinancial-inclusion-with-new-strategy.html.
- 11 Pandu Aditya Kristy, "Fintech Talk: Fintech in Indonesia: Between fragmentation and financial inclusion," *The Jakarta Post*, 7 February 2017, http://www.thejakartapost.com/ news/2017/02/07/fintech-talk-fintech-in-indonesia-betweenfragmentation-and-financial-inclusion.html.
- 12 Anisa Menur A. Maulani, "Indonesia fintech event IFFC 2016 is set to champion financial inclusion," Entrepreneurs 27 (E27), 25 August 2016, https://e27.co/indonesian-fintech-industry-megaevent-is-set-to-champion-financial-inclusion-20160825/.
- 13 Anton Hermansyah, "Queen Maxima praises Indonesia's financial inclusion efforts," *The Jakarta Post*, 31 August 2016, http://www. thejakartapost.com/news/2016/08/31/queen-mxima-praisesindonesias-financial-inclusion-efforts.html.

#### **KENYA ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Members," Better Than Cash Alliance, 2017, Accessed May 2017, https://www.betterthancash.org/members/government.
- 3 John D. Villasenor, Darrell M. West and Robin J. Lewis, "The 2016 Brookings Financial and Digital Inclusion Project Report: Advancing Equitable Financial Ecosystems," Center for Technology Innovation at Brookings, August 2016, 6, https://www.brookings.edu/wp-content/uploads/2016/08/ fdip\_20160816\_project\_report.pdf.
- 4 "Kenya witnesses 50% increase in financial inclusion in last decade," FSD Kenya, 18 February 2016, http://fsdkenya.org/ news/kenya-witnesses-50-increase-in-financial-inclusionin-last-decade/.
- 5 Brian Ngugi, "Kenya hosts financial inclusion conference next month," *Business Daily Africa*, 16 April 2017, http://www. businessdailyafrica.com/magazines/Kenya-hosts-financialinclusion-conference-next-month/1248928-3892092-wb7votz/.

- 6 Jeffrey Riecke, "The Competition Authority of Kenya Opts for Pricing Transparency," Center for Financial Inclusion at Accion, 7 June 2017, https://cfi-blog.org/2017/06/07/the-competitionauthority-of-kenya-opts-for-pricing-transparency/.
- 7 "Kenya's Safaricom resumes some services after network outage," *Reuters*, 24 April 2017, http://af.reuters.com/article/ africaTech/idAFKBN17Q0L7-OZABS.
- 8 "Kenyan Government Expands Insurance and Social Security via Digital Finance," Center for Financial Inclusion, 15 February 2017, https://cfi-blog.org/2017/02/15/kenyan-government-expandsinsurance-and-social-security-via-digital-finance/.

#### **MALAWI ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Members," Better Than Cash Alliance, 2017, Accessed May 2017, https://www.betterthancash.org/members/government.
- 3 Jamie M. Zimmerman, Kristy Bohling, Brian Le Sar, Brian Loeb, Neil Nyirongo, and Titus Kavalo, "Country Diagnostic: Malawi," Bankable Frontier Associates and Better Than Cash Alliance, March 2015, https://www.betterthancash.org/tools-research/ case-studies/country-diagnostic-malawi.
- 4 "Putting Financial Inclusion on the Global Map: 2013 Maya Declaration Progress Report," Alliance for Financial Inclusion, 12 September 2013, 27, http://www.afi-global.org/ publications/1193/The-2013-Maya-Declaration-Report-Putting-Financial-Inclusion-on-the-Global-Map.
- 5 "Mobile money expands financial inclusion and economic empowerment in Malawi," FHI 360, 9 January 2017, https:// www.fhi360.org/news/mobile-money-expands-financialinclusion-and-economic-empowerment-malawi.
- 6 "USAID: Feed the Future Malawi Mobile Money," FHI 360, Undated, https://www.fhi360.org/projects/usaid-feedfuture-malawi-mobile-money.
- 7 Ibid.

#### **MEXICO ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 Juan Manuel Valle, "Mexico's National Council for Financial Inclusion," CGAP, 16 February 2012, http://www.cgap.org/blog/ mexico%E2%80%99s-national-council-financial-inclusion.
- 3 "Mexico advances in financial inclusion: SHCP" [Translation by Google Translate], 6 November 2015, http://www.informador. com.mx/economia/2015/631009/6/mexico-avanza-eninclusion-financiera-shcp.htm.
- 4 "Reporte Nacional de Inclusión Financiera 7," Consejo Nacional de Inclusión Financiera, 2016, 7, http://www.cnbv.gob. mx/Inclusi%C3%B3n/Documents/Reportes%20de%20IF/ Reporte%20de%20Inclusion%20Financiera%207.pdf.
- 5 "State of the Industry Report on Mobile Money, Decade Edition: 2006-2016," GSMA, 1 March 2017, https://www.gsma.com/ mobilefordevelopment/wp-content/uploads/2017/03/GSMA\_ State-of-the-Industry-Report-on-Mobile-Money\_2016-1.pdf.

- 6 Email communication with a representative of the Tesorera de la Federación on August 11, 2017.
- 7 "Global Microscope 2016: The Enabling Environment for Financial Inclusion," The Economist Intelligence Unit, 2016, http://www.centerforfinancialinclusion.org/storage/documents/ EIU\_Microscope\_2016\_WEBr2\_2016.11.03.pdf.
- 8 President of the Republic, 21 June 2016, https://www.gob. mx/presidencia/prensa/mexico-incluyente-es-un-pais-endonde-los-derechos-no-solo-sean-un-ideal-sino-una-realidadpermanente-en-la-vida-diaria-de-sus-habitantes?idiom=es&hootPostID=59e0b3040a7725b90ee6f6f77ec46fca.
- 9 "Mexico's route to financial inclusion begins with commitment to reduce the use of cash," Better Than Cash Alliance, 23 June 2016, https://www.betterthancash.org/news/media-releases/ mexicos-route-to-financial-inclusion-begins-with-commitmentto-reduce-the-use-of-cash.

#### **NIGERIA ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "National Financial Inclusion Strategy: Summary Report," Central Bank of Nigeria, 20 January 2012, http://www.cbn.gov. ng/Out/2012/publications/reports/dfd/CBN-Summary%20 Report%20of-Financial%20Inclusion%20in%20Nigeria-final.pdf.
- 3 "Agent banking in Nigeria: Factors that would motivate merchants to engage – September 2013," EFInA, 2013, http:// www.efina.org.ng/our-work/research/other-research/agentbanking-in-nigeria-factors-that-would-motivate-merchantsto-engage-sep-2013/.
- 4 "Regulatory Framework for Licensing Super-Agents in Nigeria," Central Bank of Nigeria, 2015, http://www.cbn.gov.ng/out/2015/ bpsd/regulatory%20framework%20for%20licensing%20superagents%20in%20nigeria.pdf.
- 5 "Paga Partners NIPOST on Financial Inclusion," THISDAY NEWSPAPERS LTD., 1 May 2017, https://www.thisdaylive.com/ index.php/2017/05/01/paga-partners-nipost-on-financialinclusion/.
- 6 Bukola Aroloye, "Furore over new bank charges" *The Nation*, 23 April 2017, http://thenationonlineng.net/furore-new-bankcharges/.
- 7 Brian, "Dr, Olayinka David-West: How to Drive Financial Inclusion in Nigeria," Stellar.org, 1 May 2017, https://www.stellar.org/blog/ financial-inclusion-nigeria-lagos-business-school-david-westolayinka/.
- 8 Chima Nwokoji-Lagos, "Financial Inclusion: CBN takes money matters to secondary schools," *Nigerian Tribune*, http:// tribuneonlineng.com/financial-inclusion-cbn-takes-moneymatters-secondary-schools/.
- 9 "2017 Nigeria Global Money Week," Child & Youth Finance International, https://www.globalmoneyweek.org/regions/ africa/nigeria.html.
- 10 "CBN marks Global Money Week 2017 to promote financial literacy for youth," *Financial Nigeria*, 29 March 2017, http://www. financialnigeria.com/cbn-marks-global-money-week-2017-topromote-financial-literacy-for-youth-news-1204.html.
- Rokaya Helfer, "Big Data Means Big Opportunity for Women's Financial Inclusion in Nigeria," Women's World Banking, 20 March 2017, https://www.womensworldbanking.org/news/ blog/big-data-means-big-opportunity-womens-financialinclusion-nigeria/.

12 Olayinka David West et. al., "Digital Financial Services in Nigeria: State of the Market Report 2016," Lagos Business School, December 2016, https://www.researchgate.net/ publication/311615447\_Digital\_Financial\_Services\_in\_Nigeria\_ State\_of\_the\_Market\_Report\_2016.

13 Ibid.

- 14 "Digital Finance takes centre stage at Financial Inclusion Summit in Nigeria," Central Bank of Nigeria, 1 February 2017, https:// www.cbn.gov.ng/out/2017/ccd/financial%20inclusion%20 newsletter\_feb%202017\_volume%202%20issue%201\_final.pdf.
- 15 Paul Adepoju, "Nigeria: 3 million new jobs by 2025," *ITWebAfrica*, 21 December 2016, http://www.itwebafrica.com/ictand-governance/265-nigeria/237216-nigeria-3-million-newjobs-by-2025.
- 16 Ibid.

#### **PAKISTAN ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 Simone di Castri, "Mobile Money: Enabling regulatory solutions," GSMA, February 2013, 21, https://www.gsma.com/ mobilefordevelopment/wp-content/uploads/2013/02/MMU-Enabling-Regulatory-Solutions-di-Castri-2013.pdf.
- 3 "Finance Minister launches National Financial Inclusion Strategy for Pakistan," State Bank of Pakistan, 22 May 2015, http://www. sbp.org.pk/press/2015/FM-22-May-2015.pdf.
- 4 "Mobile Money Deployment Tracker," GSMA, May 2016, https:// www.gsma.com/mobilefordevelopment/m4d-tracker/mobilemoney-deployment-tracker.
- 5 Phoebe Rorke, "Microcapital Brief: World Bank Providing \$130m for Financial Inclusion Effort in Pakistan," Microcapital, 17 April 2017, http://www.microcapital.org/microcapital-brief-worldbank-providing-130m-financial-inclusion-effort-pakistan/.
- 6 "Govt determined to financial, digital inclusion: Dar," Pakistan Today, 22 February 2017, https://www.pakistantoday.com.pk/ 2017/02/22/govt-determined-to-financial-digital-inclusion-dar/.
- 7 Amanullah Khan, "Fast track growth of digital ecosystem, financial inclusion," *Pakistan Observer*, http://pakobserver.net/ fast-track-growth-digital-ecosystem-financial-inclusion/.
- 8 "Mastercard helps expand financial inclusion in Pakistan by optimizing National ID cards with e-payment functionality," Mastercard, 18 January 2017, https://newsroom.mastercard. com/mea/press-releases/mastercard-helps-expand-financialinclusion-in-pakistan-by-optimizing-national-id-cards-withe-payment-functionality/.
- 9 "Deal signed to digitise Pakistan Post's money order service," Daily Times, 27 October 2016, http://dailytimes.com.pk/khyberpakhtunkhwa/27-Oct-16/deal-signed-to-digitise-pakistan-postsmoney-order-service.

#### **PERU ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Members," Better Than Cash Alliance, 2016, https://www. betterthancash.org/members/government/page/2.

- 3 "Global Microscope 2014: The enabling environment for Financial Inclusion," The Economist Intelligence Unit, Sponsored by MIF/ IDB, CAF, ACCION, and Citi, 2014, https://www.eiu.com/public/ topical\_report.aspx?campaignid=microscope2014.
- 4 "Ericsson and ASBANC launch connected mobile money service in Peru," Ericsson, 16 February 2016, http://www.ericsson.com/ news/1986139.
- 5 "BIM, Peru's first mobile money wallet: lessons learnt," Banking Technology, 28 April 2017, http://www.bankingtech.com/ 815942/perus-first-mobile-money-wallet-bim-lessons-learnt/.
- 6 Pablo Antón Díaz and Tómas Conde, "Modelo Peru: Unique Model, Unique Challenges, Bright Future," Center for Financial Inclusion, 5, http://www.centerforfinancialinclusion.org/storage/ documents/Modelo\_Peru\_CFI\_IIF\_Brief\_2017.01.30.pdf.
- 7 "Modelo Perú: What's Next for the Groundbreaking Mobile Money Platform," Center for Financial Inclusion, 7 February 2017, https://cfi-blog.org/2017/02/07/modelo-peru-whats-next-forthe-groundbreaking-mobile-money-platform/.
- 8 Ibid.

#### **PHILIPPINES ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 Robin J. Lewis, John D. Villasenor, and Darrell M. West, "The 2017 Brookings Financial and Digital Inclusion Project Report: Building a secure and inclusive global financial ecosystem," Center for Technology Innovation at Brookings, August 2017, https://www.brookings.edu/research/the-2017-brookingsfinancial-and-digital-inclusion-project-report/.
- 3 "National Strategy for Financial Inclusion," Bangko Sentral ng Pilipinas, http://www.bsp.gov.ph/downloads/publications/2015/ PhilippinesNSFIBooklet.pdf.
- 4 "BSP and Industry Launces the National Retail Payment System," Bangko Sentral ng Pilipinas, 24 July 2015, http://www.bsp.gov. ph/publications/media.asp?id=3948.
- 5 Angela Celis and Jimmy Calapati, "Espenilla is new BSP chief," Malaya Business Insight, 9 May 2017, http://www.malaya.com.ph/ business-news/business/espenilla-new-bsp-chief.
- 6 Jaime S. Cabag Jr., "BSP pushes immediate actions on financial inclusion," Philippine Information Agency, 27 May 2017, http:// pia.gov.ph/news/articles/901495868988.
- 7 Email communication with a representative of the Bangko Sentral ng Pilipinas on August 16, 2017.
- 8 Ibid. Also see http://www.bsp.gov.ph/regulations/regulations. asp?type=1.
- 9 "Economic and Financial Literacy Week 2017 (Theme: Pera at Ekonomiya, Usapang May Kwenta)," Republic of the Philippines, National Economic and Development Authority, November 2016, http://www.neda.gov.ph/2016/11/04/economic-and-financialliteracy-week-2016/.
- 10 Ser Percival K. Pena-Reyes, "Insights on financial literacy and inclusion from PES 54," Business Mirror, 1 December 2016, http://www.businessmirror.com.ph/insights-on-financialliteracy-and-inclusion-from-pes-54/.
- 11 "Financial Inclusion in the Philippines," Bangko Sentral No Pilipinas, 2016, 3, http://www.bsp.gov.ph/downloads/ Publications/2016/FIP\_2Sem2016.pdf.

12 Mayvelin U. Caraballo, "BSP cites microbanking offices' role in financial inclusion," *The Manila Times*, 2 January 2017, http:// www.manilatimes.net/bsp-cites-microbanking-offices-rolefinancial-inclusion/304662/.

#### **RWANDA ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Members," Better Than Cash Alliance, 2016, https://www. betterthancash.org/members/government/page/2.
- 3 "FinScope Rwanda 2016," Access to Finance Rwanda, March 2016, 33, http://statistics.gov.rw/publication/finscoperwanda-2016.
- 4 "Airtel, Tigo to launch a Mobile Money Interoperability Pilot in Rwanda," PC Tech Group, 10 October 2015, http://pctechmag. com/2015/10/airtel-tigo-to-launch-a-mobile-moneyinteroperability-pilot-in-rwanda/.
- 5 Njabulo Buthelezi, "Rwanda: Mastercard, Rwanda Extend Financial Inclusion Pact," *allAfrica*, 4 May 2017, http://allafrica. com/stories/201705050137.html.
- 6 Ibid.
- 7 Fumnanya Agbugah, "Kenya, Rwanda and Tanzania Join WEF in Promoting Financial Inclusion in East Africa," Ventures Africa, 5 May 2017, http://venturesafrica.com/kenyarwanda-and-tanzania-join-wef-in-promoting-financial-inclusionin-east-africa/.
- 8 Ibid
- 9 Peterson Tumwebaze, "New mobile payments facility to help enhance financial inclusion," *The New Times*, 20 January 2017, http://www.newtimes.co.rw/section/ article/2017-01-20/207256/.
- 10 Nathan Wire, "Africa: Rwanda's Financial Inclusion Story Is Impressive, Challenging," *The Monitor*, 24 October 2016, http://allafrica.com/stories/201610240045.html.
- 11 "Global Microscope 2016: The Enabling Environment for Financial Inclusion," The Economist Intelligence Unit, Supported by IDB, OMIN, CFI, ACCION, MetLife, 43, http:// www.centerforfinancialinclusion.org/storage/documents/ EIU\_Microscope\_2016\_English\_web.pdf.

#### SOUTH AFRICA ENDNOTES

- "Member Institutions," Alliance for Financial Inclusion, 20 June 2017, http://www.afi-global.org/members/. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 Robin J. Lewis, John D. Villasenor, and Darrell M. West, "The 2017 Brookings Financial and Digital Inclusion Project Report: Building a secure and inclusive global financial ecosystem," Center for Technology Innovation at Brookings, August 2017, https://www.brookings.edu/research/the-2017-brookingsfinancial-and-digital-inclusion-project-report/.
- 3 John D. Villasenor, Darrell M. West and Robin J. Lewis, "The 2016 Brookings Financial and Digital Inclusion Project Report: Advancing Equitable Financial Ecosystems," Center for Technology Innovation at Brookings, August 2016, 91, https://www.brookings.edu/wp-content/uploads/2016/08/ fdip\_20160816\_project\_report.pdf.

- 4 Email communication with a representative of the Centre for Financial Regulation and Inclusion on August 21, 2017. See, for example, https://www.thedti.gov.za/parliament/2017/Financial\_ Sector.pdf.
- 5 Klaus Kessler et al., "Improving Financial Inclusion in South Africa," BCG, 11 April 2017, https://www.bcg.com/ publications/2017/globalization-improving-financial-inclusionsouth-africa.aspx.
- 6 "Improving Financial Inclusion in SA's Cash Society," City Press, 21 April 2017, http://city-press.news24.com/Business/improvingfinancial-inclusion-in-sas-cash-society-20170421.
- 7 Email communication with a representative of the Centre for Financial Regulation and Inclusion on August 21, 2017. See, for example, https://www.iol.co.za/business-report/stokvel-reporthow-south-africans-save-their-money-9636937.
- 8 Klaus Kessler et al., "Improving Financial Inclusion in South Africa," BCG, 11 April 2017, https://www.bcg.com/ publications/2017/globalization-improving-financial-inclusionsouth-africa.aspx.
- 9 Prinesha Naidoo, "SA leads SADC in Financial Inclusion of Women," *MoneyWeb*, 30 August 2016, https://www.moneyweb. co.za/news/south-africa/sa-leads-sadc-in-financial-inclusion-ofwomen/.
- 10 "DA and EFF oppose Financial Sector Regulation Bill," eNCA. com, 7 December 2016, http://www.enca.com/money/da-andeff-oppose-financial-sector-regulation-bill.
- 11 "Global Microscope 2016: The Enabling Environment for Financial Inclusion," The Economist Intelligence Unit, Supported by IDB, OMIN, CFI, ACCION, MetLife, 44, http:// www.centerforfinancialinclusion.org/storage/documents/ EIU\_Microscope\_2016\_English\_web.pdf.
- 12 Gareth van Zyl, "Post Office near to winning banking licence," Fin24Tech, 8 July 2016, http://www.fin24.com/Tech/Companies/ post-office-near-to-winning-banking-licence-20160708.
- 13 Email communication with a representative of the Centre for Financial Regulation and Inclusion on August 21, 2017.

#### **TANZANIA ENDNOTES**

- "Maya Declaration," Alliance for Financial Inclusion, 20 June 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "National Financial Inclusion Framework: A Public-Private Stakeholders' Initiative (2014-2016)," Tanzania National Council for Financial Inclusion, 2013, http://www.cgap.org/blog/digitalfinancial-inclusion-supervision-tanzania-pilot-program.
- 3 Henry Lyimo, "Major Telecoms Attain Financial Interoperability," Daily News, 18 February 2016, http://allafrica.com/ stories/201602180528.html.
- 4 "Bank of Tanzania Aims At 80% Financial Inclusion for 2017," Tanzania Invest, 16 February 2016, http://www.tanzaniainvest. com/finance/banking/bank-of-tanzania-bot-sets-80-percentfinancial-inclusion-for-2017.
- 5 Fumnanya Agbugah, "Kenya, Rwanda and Tanzania Join WEF in Promoting Financial Inclusion in East Africa," Ventures Africa, 5 May 2017, http://venturesafrica.com/kenya-rwandaand-tanzania-join-wef-in-promoting-financial-inclusion-ineast-africa/.

- 7 "Tanzania: Banks, Mobile Money Agents Drive Up Financial Inclusion," *Tanzania Daily News*, 1 November 2016, http:// allafrica.com/stories/201611010445.html.
- 8 "Tanzania Postal Bank: Digital Financial Inclusion Through POPOTE," WSBI, PHB Development, and e-MFP, October 2016, https://www.microfinancegateway.org/library/tanzania-postalbank-digital-financial-inclusion-through-popote.
- 9 "Tanzania Postal Bank: Digital Financial Inclusion Through POPOTE," WSBI, PHB Development, and e-MFP, October 2016, 5, http://www.e-mfp.eu/sites/default/files/resources/2016/10/ Tanzania%20Postal%20Bank%20Case%20study%202016%20 final.pdf.
- 10 "AFRICA: Tanzania Tops Africa in Financial Inclusion Drive," *Tanzania Daily News*, 7 November 2016, http://allafrica.com/ stories/201611070895.html.
- 11 Ivo Jenik and Salvador Chang, "Digital Financial Inclusion Supervision: Tanzania Pilot Program," CGAP, 21 November 2016, http://www.cgap.org/blog/digital-financial-inclusionsupervision-tanzania-pilot-program.

#### **TURKEY ENDNOTES**

- "Member Institutions," Alliance for Financial Inclusion, 20 June 2017, http://www.afi-global.org/members/. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Global Microscope 2014: The Enabling Environment for Financial Inclusion," Economist Intelligence Unit, Sponsored by MIF/IDB, CAF, ACCION, and Citi, 2014, 40, https://www.eiu.com/public/ topical\_report.aspx?campaignid=microscope2014.
- 3 "Financial Access, Financial Education, Financial Consumer Protection Strategy and Action Plans," Republic of Turkey Prime Ministry Undersecretariat of Treasury et al., June 2014, 1, https://hazine.gov.tr/File/?path=ROOT%2F1%2FDocuments %2FGeneral+Content%2FFinancial+Inclusion.pdf.
- 4 "Policy Frameworks to Support Women's Financial Inclusion," Alliance for Financial Inclusion and Women's World Banking, March 2016, 17, http://www.afi-global.org/sites/default/files/ publications/2016-08/2016-02-womenfi.1\_0.pdf.
- 5 "Global Microscope 2016: The Enabling Environment for Financial Inclusion," The Economist Intelligence Unit, Supported by IDB, OMIN, CFI, ACCION, MetLife, 26-27, http://www. centerforfinancialinclusion.org/storage/documents/EIU\_ Microscope\_2016\_English\_web.pdf.

#### **UGANDA ENDNOTES**

- 1 "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- 2 "Commitment update made by Bank of Uganda," Bank of Uganda, Undated, 1, http://www.afi-global.org/sites/default/ files/publications/2016-08/2016%20Maya%20Progress%20 Report-2.pdf.
- 3 "Bank of Uganda Financial Stability Report," Bank of Uganda, 2016, 27, https://www.bou.or.ug/bou/bou-downloads/financial\_ stability/Rpts/All/Financial-Stability-Report--June-2016.pdf.

- 4 Mark Keith Muhumuza, "Uganda: How Amended Financial Law Could Revolutionize Banking," Sunday Monitor, 11 January 2016, http://www.monitor.co.ug/Business/How-amendedfinancial-law-could-revolutionise-banking/-/688322/3027954/-/ pomeOlz/-/index.html.
- 5 Rachel K. Sebudde, "In Uganda, greater financial inclusion is the key to unlocking rapid growth," World Bank, 9 February 2017, https://blogs.worldbank.org/africacan/in-uganda-greaterfinancial-inclusion-is-the-key-to-unlocking-rapid-growth.
- 6 Ibid
- 7 "Celebrating Five Years of Advancing Global Financial Inclusion," Alliance for Financial Inclusion, 2016, http://www.afi-global.org/ sites/default/files/publications/2016-08/2016%20Maya%20 Progress%20Report-2.pdf.
- 8 Email communication with a representative of the Bank of Uganda on August 21, 2017.
- 9 Ibid.
- 10 Ibid.

#### VIETNAM ENDNOTES

- "Members," Better Than Cash Alliance, 2017, Accessed May 2017, https://www.betterthancash.org/members/government/ page/3.
- 2 "2010 Law on Credit Institutions," Mayer Brown, 13 August 2010, https://www.mayerbrown.com/files/Publication/ fe81c1a3-4740-4ed9-bf6f-98cb1b631712/Presentation/ PublicationAttachment/71bfe980-02a8-42e1-b094-e29ff782be a4/2010LawonCreditInstitutions.pdf.
- 3 "Mobile Wallet Market Report 2016," Viral JSC, 2017, http:// viracresearch.com/wp-content/uploads/2014/09/En\_-Vietnam-Mobile-Wallet-comprehensive-report-2016-preview.pdf.
- 4 See the GSMA'S GSMA Intelligence database, available (with subscription) at https://gsmaintelligence.com/.
- 5 "Global Microscope 2016: The Enabling Environment for Financial Inclusion," The Economist Intelligence Unit, Supported by IDB, OMIN, CFI, ACCION, MetLife, 24, http:// www.centerforfinancialinclusion.org/storage/documents/ EIU\_Microscope\_2016\_English\_web.pdf.

#### ZAMBIA ENDNOTES

- "Maya Declaration," Alliance for Financial Inclusion, May 2017, http://www.afi-global.org/maya-declaration. Note that specific dates regarding Maya Declaration and/or Alliance for Financial Inclusion commitments were last accessed in May 2016.
- "FinScope 2015," fsdZambia, 2015, 19, http://www.fsdzambia. org/wp-content/uploads/2016/05/FINSCOPE-REPORT-2015.pdf.
- 3 "The National Payments Systems Directives on Electronic Money Issuance, 2015," Republic of Zambia Government Gazette, 26 June 2015, http://www.boz.zm/paymentsystems/201506Directive-NationalPaymentSystemsDirectiveson ElectronicMoneyIssuance.pdf.
- 4 "Government of Zambia and World Bank Group to Step-Up Support to Zambia's Financial Inclusion Goals," The World Bank, 2 November 2015, http://pubdocs.worldbank.org/ en/882921452618219312/WB-Bank-of-Zambia-PressReleasefinal.pdf.

- 5 "2017 Financial Literacy Week," Bankers Association of Zambia, 2017, http://www.boz.zm/FLW-2017-Concept-Note-A4-Final.pdf.
- 6 "Mobile money company Zoona, scoops prestigious awards," *IT News Africa*, 26 June 2017, https://www.itnewsafrica. com/2017/06/zambia-mobile-money-company-zoonascoops-prestigious-awards/.

#### **METHODOLOGY ENDNOTES**

- Robin Newnham, "Financial Inclusion Strategies: Global Trends and Lessons Learnt from the AFI Network," Presented in Bogota, Colombia, 28-29 April 2014, 13, https://www.slideshare.net/ AFI-Global/financial-inclusion-strategies-global-trends-andlessons-learned-from-the-afi-networkf.
- 2 Martin Cihak and Parabal Singh, "An Analysis of National Financial Inclusion Strategies," All About Finance Blog, The World Bank, 2 December 2013, http://blogs.worldbank.org/ allaboutfinance/analysis-national-financial-inclusion-strategies.
- 3 Note that all GSMA Intelligence Database data reflects QI 2017 figures. GSMA Mobile Money for the Unbanked Deployment Tracker data was last accessed on June 27, 2017.
- 4 "How do you forecast unique subscribers?," GSMA Intelligence, Undated, https://gsmaintelligence.com/help/172/.
- 5 "Data: Metrics," GSMA Intelligence, 2014-2016, Accessed June 2017, https://www.gsmaintelligence.com/metrics/308/.
- 6 Ibid
- Consistent with the GSMA's consideration of enabling mobile 7 money environments, we consider regulatory landscapes in which mobile network operators are permitted to lead mobile money services directly, through a dedicated subsidiary, as a payments bank (or equivalent), or through a "letter of no objection" to the non-bank or its partner bank, to constitute an "enabling" environment (note that the GSMA has additional criteria relating to cash-in/cash-out at agents, interoperability, and capital requirements). Therefore, countries that fit these criteria are awarded a 3 for this indicator. See http://www.gsma. com/mobilefordevelopment/wp-content/uploads/2015/03/ SOTIR\_2014.pdf (page 71). We recognize that there are many non-bank mobile money providers beyond simply mobile network operators (MNOs); however, since data show that leadership of MNOs is generally associated with faster growing deployments, we include a specific reference to MNOs in our metrics for the purposes of this study. See https://www.gsma. com/mobilefordevelopment/programme/mobile-money/ is-regulation-holding-back-financial-inclusion-a-look-atthe-evidence and http://papers.ssrn.com/sol3/papers. cfm?abstract\_id=2578312 for further information
- 8 Kabir Kumar and Michael Tarazi, "Interoperability in Branchless Banking and Mobile Money," Consultative Group to Assist the Poor, 9 January 2012, http://www.cgap.org/blog/ interoperability-branchless-banking-and-mobile-money-0.
- 9 For the purposes of this study, we consider proportionate "know-your-customer" processes to be such requirements that may be relaxed depending upon the level of perceived risk posed by the customer. The Financial Action Task Force states that a "progressive" know your customer (KYC)/customer due diligence (CDD) approach allows transaction/payment limits to vary based on the level of documentation available from the customer confirming his/her identity. See "Anti-money laundering and terrorist financing measures," Financial Action Task Force Guidance, June 2011, 27, http://www.fatf-gafi.org/ media/fatf/content/images/AML%20CFT%20measures%20 and%20financial%20inclusion.pdf.

- 10 By "inclusive," here we mean that the array of entities that financial service providers are permitted to contract as agents are diverse, and regulations regarding agent selection are consistent with the types of services those agents offer, regardless of the category of financial service provider.
- 11 Note that all scores for the indicators in the adoption dimension are based on data from the 2014 Global Financial Inclusion database (Global Findex).
- 12 In this example, the subranges are equal; however, for instances where this was not the case, the subranges were adapted so that the subranges at the high and low ends of the overall range were equal, while the middle subrange was slightly wider. See the individual indicator descriptions for further details.
- 13 2014 Global Findex data for this indicator was not available for Tanzania, Ethiopia, and Haiti. Our approach to missing numerical data was to assign the respective countries a composite indicator score comprising the average of all country scores for the indicator—therefore, for the percentage of wage earners who used a mobile phone to receive their salary or wages, Tanzania, Ethiopia, and Haiti each received a score of 1.
- 14 2014 Global Findex data for this indicator was not available for Malawi and Haiti. As noted above, our approach to missing numerical data was to assign the respective countries a composite indicator score comprising the average of all country scores for the indicator—therefore, for the percentage of adults who used a mobile phone to make utility payments (among adults who regularly made bill payments), Malawi and Haiti received a composite score of 1.
- 15 2014 Global Findex data for this indicator was not available for Afghanistan and Pakistan. As noted above, our approach to missing numerical data was to assign the respective countries a composite indicator score comprising the average of all country scores for the indicator—therefore, for the percentage of adults with an account at a bank or another type of financial institution who report that money is withdrawn from their account three or more times in a typical month, Afghanistan and Pakistan each received a composite score of 2.

### ACKNOWLEDGMENTS

n an effort to capture as complete and accurate a picture as possible of the rapidly evolving financial inclusion environment in each of our 26 focus countries and beyond, the Financial and Digital Inclusion Project (FDIP) team reached out to government representatives in each of the 26 countries, as well as to many other domestically and internationally-based financial inclusion experts.

We benefited from high levels of engagement among many of these contacts and are grateful for their insights regarding financial inclusion within our country sample and/or the global financial inclusion landscape more generally. We would like to extend our appreciation to these diverse financial inclusion authorities, including:

Adriana Labardini, Instituto Federal de Telecommunicaciones	Hemant Baijal, Mastercard		
	Hernán Fernandez, Angel Ventures		
Alex Martin, ePesos	Ian Robinson, Independent consultant in financial inclusion and impact assessment		
Angela Lyons, University of Illinois at Urbana-Champaign			
Anne Wallwork, <i>United States Department of the</i> <i>Treasury</i>	Inclusive Finance Advocacy Office of the Bangko Sentral ng Pilipinas		
Ben Cessa, openBerry Foundation for Digital Inclusion	Irene Espinosa Cantellano, <i>La Tesorería de la Federación (TESOFE)</i>		
Camila Lecaros, MassChallenge			
Carlos Cornejo, Mastercard	Jamie Zimmerman, <i>Bankable Frontier Associates</i> (Former)		
Carmen Cecilia León Franco, Banca de las Oportunidades	Juliana Álvarez Gallego, Banca de las Oportunidades		
The Centre for Financial Regulation & Inclusion (Cenfri)	Juliana Martínez Hernández, <i>Banca de las Oportunidades</i> Karoline Schmid, <i>United Nations</i> Kay McGowan, <i>USAID (Former)</i>		
Cristina Oliveira Roriz, Banco Central do Brasil			
David Medine, Consultative Group to Assist the Poor			
Dorothe Singer, The World Bank			
Edgar Cortés, <i>Banco de México</i>	Kelly Goldstein, Fannie Mae		
Elaine Hake, Cherie Blair Foundation for Women	Kennedy Komba, Alliance for Financial Inclusion		
Elisabeth Rhyne, Center for Financial Inclusion at Accion	Kyle Holloway, Innovations for Poverty Action		
Elvira Cruvinel Ferreira, Banco Central do Brasil	Leora Klapper, The World Bank		
Ernest Wasake, WMC Africa	Leticia Riquelme Arriola, <i>Inter-American Development</i> <i>Bank</i>		
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65

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Tewodros Tassew, BelCash Ethiopia

Tidhar Wald, Better Than Cash Alliance

Tilman Ehrbeck, Omidyar Network

Tomás Conde, BBVA

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'Wale Esan, Wema Bank

We would also like to recognize the contributions of the Brookings team, including Eric Abalahin, Brigitte Brown, Leti Davalos, Anna Goodbaum, Catherine Howell, Yohann Paris, Jessica Pavone, Emily Perkins, Adrianna Pita, Camilo Ramirez, Elizabeth Sablich, Louis Serino, Lauren Shaw, and Tracy Viselli. Our thanks go to co-author Robin Lewis for research support and project management for FDIP. We are also deeply grateful for the efforts of Neal Cox and Jennifer Kaczor of the MillerCox Design team, who have done a spectacular job with the layout and production of each FDIP report.

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This publication is based on research funded by the Bill & Melinda Gates Foundation. The findings, methodology, conclusions, and recommendations contained within are those of the authors and do not necessarily reflect positions or policies of the Bill & Melinda Gates Foundation.

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