



**CATALYZING INCLUSION:  
FINANCIAL TECHNOLOGY &  
THE UNDERSERVED**

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AUGUST 2017

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JPMORGAN CHASE & Co.

CENTER for  
COMMUNITY  
CAPITAL



THE UNIVERSITY  
of NORTH CAROLINA  
at CHAPEL HILL



# ACKNOWLEDGMENTS

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The Center for Community Capital thanks JPMorgan Chase & Co. for their generous support of this research. Additionally, the authors wish to thank everyone who so generously offered their time and perspectives during the course of our interviews for this report. We would also like to thank Sonia Garrison, Erika Brandt, Ashley Tucker, and Jennifer Rangel for their research contributions and Julia Barnard, Eileen Harvey, and Audrie Lathrop for their editorial and graphic design assistance.

The views and opinions expressed in this report are those of the Center for Community Capital and do not necessarily reflect the views and opinions of JPMorgan Chase & Co. or its affiliates.

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The center's in-depth analyses help policymakers, advocates, and the private sector find sustainable ways to expand economic opportunity to more people, more effectively.

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## EXECUTIVE SUMMARY

THE PROLIFERATION of technology innovations from both incumbent, or established, financial services providers and new entrants to the industry have enormous potential to expand financial health and inclusion. This important opportunity can lower costs, improve transparency and convenience, and give low- and moderate-income (LMI) consumers greater control over their finances. However, progress towards these goals is not inevitable. Public, private, and nonprofit sector actors will need to collaborate in order to prioritize inclusive development within the financial services sector.

This paper explores the potential for technology innovation in the financial services sector – fintech – to increase the financial well-being and inclusion of American households and communities. By synthesizing research from every corner of the field and establishing an overview of low- and moderate-income consumer needs, this paper identifies both the barriers and the opportunities facing fintech providers.

Unlike many parts of the globe where consumer banking is just emerging, the United States possesses a mature banking infrastructure accessible to most, though not all, consumers and geographies.<sup>1</sup> Despite the widespread presence of consumer financial services providers and products, however, a large share of American consumers remain underserved. According to the Center for Financial Services Innovation (CFSI), the underserved include 91 million consumers with low-to-moderate incomes, 51 million struggling with volatile incomes, 121 million who are credit-challenged, and 67 million who are unbanked or underbanked.<sup>2</sup> Beyond the financially underserved, CFSI also estimates that approximately 57 percent of Americans – 137 million consumers – are financially unhealthy, meaning they struggle to manage their day-to-day finances, establish a savings cushion, and take steps to ensure their financial security and mobility.<sup>3</sup>

THE PROLIFERATION OF FINTECH INNOVATIONS FROM BOTH INCUMBENT FINANCIAL SERVICES PROVIDERS AND NEW ENTRANTS TO THE INDUSTRY HAVE THE POTENTIAL TO EXPAND FINANCIAL HEALTH AND INCLUSION.

The United States also stands out when compared with other advanced economies in the share of the bottom 40 percent of households with a bank account compared with the remaining 60 percent. According to the World Bank: “In Canada, France, Germany, Japan, and the United Kingdom there is no significant difference in account penetration between adults in the poorest 40 percent of households and those in the richest 60 percent – and the share of adults with an account exceeds 95 percent in the poorer group. In the United States, by contrast, the data show a gap of 11 percentage points in account penetration between the two groups, with only 87 percent of adults in the poorer group having an account.”<sup>4</sup>

<sup>1</sup> See, for example: Friedline, Terri, Mathieu Despard, and Stacia West. “Navigating day-to-day finances: A geographic investigation of brick-and-mortar financial services and households’ financial health.” Lawrence, KS: University of Kansas Center on Assets, Education & Inclusion (AEDI). 2017; Morgan, Donald, Maxim Pinkovskiy, and Bryan Yang. “Banking Deserts, Branch Closings, and Soft Information.” Liberty Street Economics, Federal Reserve Bank of New York. March 7, 2016.

<sup>2</sup> The FDIC reports that according to their 2015 survey, 7 percent of all U.S. households – approximately 9 million households with 16.5 million adults – lack a checking or savings account (the unbanked). An additional 19.9 percent of households – approximately 24.5 million households with 51 million adults – rely on non-bank providers of financial services, even though they possess a bank account (the underbanked) See: FDIC. “2015 FDIC National Survey of Unbanked and Underbanked Households.” October, 2016. P.13.

<sup>3</sup> Gutman, Aliza., Thea Garon, Jeanne Hogarth, and Rachel Schneider. “Understanding and Improving Consumer Financial Health in America.” CFSI. 2015. Accessed on-line: <https://s3.amazonaws.com/cfsi-innovation-files/wp-content/uploads/2017/01/24183123/Understanding-and-Improving-Consumer-Financial-Health-in-America.pdf>

<sup>4</sup> Demirgüç-Kunt., Asli., and Leora Klapper, Dorothe Singer, and Peter Van Oudheusden. “The Global Findex Database 2014 – Measuring Financial Inclusion around the World.” World Bank Policy Research Working Paper 7255. World Bank Group. April 2015.

## EXECUTIVE SUMMARY

Financially underserved households often pay a high price for the financial services they do use. According to the Center for Financial Services Innovation (CFSI), “Financially underserved consumers in the U.S. spent approximately \$141 billion in fees and interest during 2015 to borrow, spend, save, and plan across 28 financial products in this diverse and continually growing marketplace.”<sup>5</sup> These costs in fees and interest paid by the underserved undermine their financial stability and that of the communities in which they reside. On the flip side, these costs paid by underserved consumers may represent a significant untapped market for financial services providers – traditional and non-traditional, for-profit and nonprofit – that can better meet the financial management needs of the underserved and those working to improve their financial health.

There is one promising global trend that may assist financial services providers in expanding financial inclusion: fintech – the use of innovative technology driving consumers and businesses towards digital platforms such as online and mobile banking. Globally, the investment going to private fintech companies increased ten-fold between 2010 and 2015, increasing from \$1.8 billion to \$12 billion.<sup>6</sup> By far, the lion’s share of these investment dollars – 73 percent – went to firms and products targeting both the personal and small-to-medium enterprise (SME) sectors.<sup>7</sup>

The focus on fintech aimed at personal finance or business to consumer (B2C) services reflects two factors. The first is that business systems and practices can take longer to migrate to new opportunities than individual households who may find improvements in their customer experience, a lower price, or access to a product or service that was not previously available. The second is that, on the provider side, fintech innovators can offer products and services that sit atop existing financial services platforms, thus taking advantage of available infrastructure without having to bear the cost of duplication. For example, a fintech app from a non-bank provider that links to an existing bank account

effectively takes advantage of both the brick-and-mortar infrastructure embodied by the home bank’s branches and account safeguards such as customer identification regulations that the home bank must meet.

While the fast pace of change in the financial services landscape requires regulators to update their oversight of non-bank providers of financial services, currently innovators are able to take advantage of this opening and benefit from the cost savings.

On the consumer side, fintech has the potential to expand access to safe and affordable financial services to more people. The advantages of these innovations include lower costs for services driven by greater efficiencies and targeted marketing, improved transparency about product and service terms and costs, greater financial control, faster and/or real-time deposits and expenses reflected in account balances, new products and services specifically aimed at the underserved, and improved safety and security of funds. All of these fintech advantages have great potential and already benefit many consumers, including those who are currently underserved. Nevertheless, in the United States, the share of the consumer “banking wallet” migrating to digital channels for all consumers, not just the underserved, is still estimated to be small – 1 percent in 2016.<sup>8</sup> However, analysts expect that share of the consumer banking wallet to grow rapidly to 10 percent by 2020.<sup>9</sup> Already in 2016, 71 percent of account holders reported using online banking, while 38 percent reported using mobile financial services.<sup>10</sup>

With the development and adoption of fintech at a flexion point, it is unclear whether fintech will fundamentally alter the financial inclusion landscape in the United States. One possibility is that a combination of weaker consumer regulations and a push towards innovation directed at the middle and higher ends of the market to underwrite the investment costs of implementing digital services will result in an increasingly complex and confusing array of products

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<sup>5</sup> CFSI. “2016 Financially Underserved Market Size Study.” December 21, 2016. Accessed online: <http://cfsinnovation.org/research/2016-financially-under-served-market-size-study/>

<sup>6</sup> Citi GPS: Global Perspectives and Solutions. “Digital Disruption: How FinTech is Forcing Banking to a Tipping Point.” March 2016. P 4. Accessed online June 2016: <https://ir.citi.com/puljT9VOVo%2bvpc9RL2PEr26kiSGlvSxjFFLIK3Kum38daQckaOKRnVTtYIcAjRgiOrPWjflasEQGQFyo8Fn5CQ%3d%3d>

<sup>7</sup> Ibid.

<sup>8</sup> Ibid.

<sup>9</sup> Ibid.

<sup>10</sup> Board of Governors of the Federal Reserve System. “Consumers and Mobile Financial Services 2016.” March 2016. Box 2. “Banking Status and the Use of Mobile Banking and Payments – continued.” Figure A. Phone ownership by banking status and Figure B. Mobile banking and payments use by banking status. Page 11.



and services, some of which the underserved will find helpful but many of which they may find challenging to navigate safely. If so, we will squander the opportunity for fintech to play a catalytic role in expanding financial health and inclusion.

But another possibility is that new collaborations among a diverse array of partners – incumbent financial institutions, fintech innovators, nonprofits, and the public sector – can transform the financial services landscape and allow fintech to emerge as a true catalyst for meaningful improvements in financial inclusion. We highlight several such collaborations in this report. To accomplish this transformation, we argue that private, public, and philanthropic investments are needed in five key areas:

- ① Expanded research and investment in fintech innovation targeted specifically to the needs of the underserved and those wanting to improve their financial health;
- ② Greater investment in the capacity of those parts of the non-profit and public sectors that are working directly with the underserved to link them to appropriate financial products and services, to increase their digital literacy, and to improve their financial health;
- ③ Greater access of the underserved to reliable and affordable digital technology, including universal broadband and mobile technology;
- ④ An updated regulatory landscape that both protects consumers and allows for controlled experimentation; and
- ⑤ Improvements to the banking system, specifically a) modernization that allows faster payments and posting of deposits; and b) universal adoption of enhanced security to address widespread consumer concerns about the safety of digital financial services and provider concerns about fraud and increased levels of risk.

We believe that significant investments in these five areas could help to build a financial ecosystem that better meets the needs of the underserved, as well as assist those struggling to reach or maintain financial health. However, it would be naive to think that an improved financial services landscape, in and of itself, can turn the tide for many households who must deal with increasingly volatile incomes, inadequate and stagnating wages, declining access to workplace benefits such as retirement, sick leave, and healthcare, and a fraying social safety net. We cannot ignore the broader context of what needs to be achieved to enable American households to avoid financial instability, undermining their prosperity and that of their communities.

This report examines the potential of fintech to increase financial inclusion. High-level findings are presented in the areas of fintech investment trends, fintech adoption trends, American fintech adoption in a global perspective, consumer views of the evolving financial services landscape, barriers to fintech adoption, and the potential of fintech and nonprofit partnerships.

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## FINTECH INVESTMENT TRENDS

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- > Rather than fintech companies creating wholesale disruption, industry experts expect that partnerships between fintech innovators and incumbent financial institutions will dominate the future of the industry; nevertheless, fintech companies will change the ways that financial institutions do business in both the short- and long-term.
- > Many incumbent financial institutions have reduced their branch banking infrastructure in some areas of the country, but in others have actually expanded branches as a customer acquisition strategy, particularly in wealthier cities.
- > Globally, the investment going to private fintech companies increased ten-fold between 2010 and 2015, increasing from \$1.8 billion to \$12 billion.

## EXECUTIVE SUMMARY

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### FINTECH ADOPTION TRENDS

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- > Adoption of digital financial services has been fastest among consumers who are digitally-savvy, young, urban, and better-educated. Gender differences appear to be minimal, though this is an area that deserves further research.
- > A growing share of consumers now access their financial information through mobile technology, and a growing share of consumers use mobile phones as their primary or sole means to access the internet.
- > Despite an accelerated move to digital financial services, consumers still want to be able to access their financial institutions in multiple ways and across multiple platforms, including meeting with someone in person to address problems or receive advice.

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### AMERICAN FINTECH ADOPTION IN A GLOBAL PERSPECTIVE

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- > In terms of overall consumer adoption of mobile and online financial services, the United States is in the middle of the pack when compared with parts of Asia, Europe, and Africa.
- > In some parts of Europe, particularly in Sweden, the adoption of digital banking has been spurred by significant, long-term public investments in broad-band technology and consumer access to affordable computing technology. India provides another example of this public-sector investment strategy in an emerging financial services system.
- > Many view an accommodating regulatory system in the U.K. as a key factor in spurring innovation among its fintech firms and a model that other countries should consider for adoption, including the United States.
- > The U.S. fintech industry holds advantages in access to talent, capital, and consumer demand when compared to other parts of the globe.

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### CONSUMER VIEWS ON THE EVOLVING FINANCIAL SERVICES LANDSCAPE

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- > Consumers perceive incumbent financial institutions, fintech companies, and non-profit intermediaries as each possessing advantages and disadvantages in meeting the needs of underserved consumers and each having an important role to play in scaling up financial inclusion. Each category of institutions has much to gain from collaboration.
- > Consumers feel that **non-bank fintech providers** have an edge in the following areas:
  - o Speed and ease of account opening
  - o Convenience
  - o Faster access to account information
  - o Affordability
  - o Fewer fees or no fees, greater transparency
  - o Innovative consumer interfaces
- > Consumers feel that **traditional financial services providers** have an edge in the following areas:
  - o Security of account information and funds
  - o Ability to receive one-on-one support
  - o In-person account opening
  - o Variety of products available
- > Consumers feel that **nonprofit financial services providers** have an edge in the following areas:
  - o Higher trust-factor
  - o Ability to receive one-on-one support
  - o Ability to combine financial services with other programs, such as affordable housing or workplace services

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## BARRIERS TO FINTECH ADOPTION

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- > Distrust of digital channels is fading, but concerns related to the security of personal information persist and some consumers, especially non-English speakers and immigrants, remain suspicious of products and tools not offered through familiar financial institutions, organizations, or trusted intermediaries.
- > A lack of knowledge about a growing and complex landscape of available options can leave consumers feeling paralyzed about using any of them without in-person assistance to pick and choose something that will meet their needs.
- > The lack of a guided onboarding process can negatively impact take-up when consumers face uncertainty at any point during the enrollment process.
- > Issues related to data plans on mobile devices and reliable internet access create hurdles for some LMI consumers that limit their ability to take full advantage of some fintech products and tools.
- > Consistent demand for cash drives consumers to utilize options like check cashers where they can get access to their paychecks immediately.
- > Many fintech products are not adequately designed for people with disabilities, meaning that those with visual or other impairments are often unable to use these tools.
- > Many consumers are comfortable with their current banking habits and do not perceive enough advantages of digital financial services to add or switch to them.

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## THE POTENTIAL OF FINTECH AND NONPROFIT PARTNERSHIPS

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- > Intermediary institutions, such as nonprofits and community-based organizations, can serve as conduits for fintech companies to reach out to and learn from LMI consumers while enhancing their own ability to serve their clients' needs.
- > The full potential of these partnerships requires further exploration, and there may be types of organizations where the opportunity for making a mutually beneficial match between fintechs and nonprofits can best be maximized.
- > For nonprofits interested in designing and piloting their own fintech products and services, it is important to examine whether they have adequate resources and technical knowledge to implement their own fintech tool.
- > While nonprofit organizations are increasingly incorporating fintech tools into their work with clients, those same clients consistently cite the need to talk with someone one-on-one as a major factor in their ability to improve their financial health. Thus, the use of fintech tools must be paired with a larger public commitment to investing in household financial health through a robust nonprofit infrastructure to fill the gaps left by for-profit providers. This commitment should also provide funding for nonprofits to develop and test fintech products and services themselves.
- > Non-profit organizations often have deep knowledge of the needs of the LMI groups they serve and can often reach into target communities, but they often lack the technical expertise needed to evaluate fintech options and to stay current with products and services as they evolve.
- > For many nonprofit financial services providers, including credit unions, Community Development Finance Institutions (CDFIs), and community-based organizations, resources to upgrade or replace existing legacy systems are inadequate to fully scale the incorporation of fintech into their services.

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### CONCLUSION

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The growth of fintech and the increasing adoption of digital financial services by consumers introduces new opportunities to increase access to financial services. However, a significant expansion of financial inclusion is not an inevitable outcome of these trends. Making fintech a true catalyst for change requires new and significant investments and commitment from a broad range of private, philanthropic, non-profit, public, and regulatory institutions and actors across the financial services ecosystem.

This report outlines areas of needed investment that, collectively, would open up greater access to and use of digital financial services for the financially underserved. These investments would also create new opportunities for the underserved to articulate their own needs and be involved in designing appropriate innovations in response. Even more, they could address the concerns of both providers and consumers related to system speed and security, ensure adequate consumer protection, and increase the capacity of a range of nonprofit and other intermediary institutions that are key partners in providing the underserved with the high-quality and affordable products and tools they need to maintain or improve their financial health.

This report also profiles a variety of promising initiatives that illustrate the sort of innovative cross-sector collaborations needed to reach the underserved in new ways. Currently, the scale of such initiatives remains inadequate compared to the need. This is, in part, because these initiatives are still emerging but, more fundamentally, it is because they require greater resources and further integration into major private *and* public systems and institutions. Fortunately, critical players across the financial services landscape are already articulating the required expertise and vision.

Our hope is that what many describe as the “fintech revolution” will provide the basis for a deeper revolution in financial inclusion and health that so many families and communities desperately need.

# OVERVIEW

THIS PAPER EXPLORES the potential for technology innovation in the financial services sector – fintech – to increase the financial well-being and inclusion of American households and communities. By **financial well-being**, we refer to the four dimensions of well-being defined by consumers: possessing control over ongoing finances, having the ability to cope with a financial shock, setting and being on track to achieve financial goals, and having a sense of financial freedom rather than being consumed with financial worry.<sup>11</sup> By **financial inclusion**, we mean the expanded ability of those underserved by current banking services to access financial services that are high quality, fairly priced, and assist them to maintain or improve their financial health. Among the **underserved**, we include those who struggle to access mainstream financial services due to low incomes and income volatility, those with limited or no access to credit due to thin-or-no credit files, and those who are unbanked or underbanked.<sup>12,13</sup>

Unlike many parts of the globe where consumer banking is just emerging, the United States possesses a mature banking infrastructure accessible in most, though not all, geographies.<sup>14</sup> Despite the widespread presence of consumer financial services providers and products, a large share of American consumers remain underserved. According to the Center for Financial Services Innovation (CFSI), the underserved include 91 million consumers with low-to-moderate incomes, 51 million struggling with volatile incomes, 121 million who are credit-challenged, and 67 million who are unbanked or underbanked.<sup>15</sup> Looking beyond the financially underserved, CFSI also estimates that approximately 57 percent of Americans – 137 million consumers – are financially unhealthy, meaning that they struggle to manage their day-to-day finances, establish a savings cushion, and take steps to ensure their financial security and mobility.<sup>16</sup>

The United States also stands out when compared with other advanced economies in the share of the bottom 40 percent of households with a bank account compared with the remaining 60 percent. According to the World Bank, “In Canada, France, Germany, Japan, and the United Kingdom there is no significant difference in account penetration between adults in the poorest 40 percent of households and those in the richest 60 percent – and the share of adults with an account exceeds 95 percent in the poorer group. In the United States, by contrast, the data show a gap of 11 percentage points in account penetration between the two groups, with only 87 percent of adults in the poorer group having an account.”<sup>17</sup>

Financially underserved households pay a high price for the financial services they do use. According to the Center for Financial Services Innovation:

“Financially underserved consumers in the U.S. spent approximately \$141 billion in fees and interest during 2015 to borrow, spend, save, and plan across 28 financial products in this diverse and continually growing marketplace.”<sup>18</sup>

<sup>11</sup> United States Consumer Financial Protection Bureau. “Financial Well-Being: The Goal of Financial Education.” January, 2015. P. 5.

<sup>12</sup> Schmall, Theresa., and Eva Wolkowitz. “2016 Financially Underserved Market Size Study.” CFSI. November 2016.

<sup>13</sup> The FDIC reports that according to their 2015 survey, 7 percent of all U.S. households – approximately 9 million households with 16.5 million adults – lack a checking or savings account (the unbanked). An additional 19.9 percent of households – approximately 24.5 million households with 51 million adults – rely on non-bank providers of financial services, even though they possess a bank account (the underbanked) See: Federal Deposit Insurance Corporation. “National Survey of Unbanked and Underbanked Households 2015.” FDIC. October 20, 2016. P. 13.

<sup>14</sup> See, for example: Friedline, Terri., Mathieu Despard, and Stacia West. “Navigating day-to-day finances: A geographic Investigation of brick-and-mortar financial services and households’ financial health.” Lawrence, KS: University of Kansas, Center on Assets, Education, & Inclusion (AEDI).; and Morgan, Donald., Maxim Pinkovskiy, and Bryan Yang. “Banking Deserts, Branch Closings, and Soft Information.” Liberty Street Economics, Federal Reserve Bank of New York. March 7, 2016.

<sup>15</sup> Gutman, Aliza., Thea Garon, Jeanne Hogarth, and Rachel Schneider. “Understanding and Improving Consumer Financial Health in America.” CFSI. 2015. Accessed on-line: <https://s3.amazonaws.com/cfsi-innovation-files/wp-content/uploads/2017/01/24183123/Understanding-and-Improving-Consumer-Financial-Health-in-America.pdf>

<sup>16</sup> Ibid.

<sup>17</sup> Demirgüç-Kunt., Asli., and Leora Klapper, Dorothe Singer, and Peter Van Oudheusden. “The Global Findex Database 2014 – Measuring Financial Inclusion around the World.” World Bank Policy Research Working Paper 7255. World Bank Group. April 2015.

<sup>18</sup> CFSI. “2016 Financially Underserved Market Size Study.” December 21, 2016. Accessed online: <http://cfsinnovation.org/research/2016-financially-underserved-market-size-study/>

## OVERVIEW

These costs in fees and interest paid by the underserved undermine their financial stability and that of the communities in which they reside. On the flip side, these costs paid by underserved consumers may represent a significant untapped market for financial services providers – traditional and non-traditional, for-profit and nonprofit – that can better meet the financial management needs of the underserved.

One global trend that may assist financial services providers to expand financial inclusion is the revolution underway in the way that consumers access, save, spend and invest their money with fintech. Whether consumers are checking account balances on a mobile phone or paying for purchases on-line using one of the growing number of payment options (e.g. PayPal, ApplePay, AndroidPay), fintech innovations are changing the customer experience in ways that many contend are already disrupting the financial services industry, with many more changes expected and at an accelerating pace over the next decade.

Globally, the investment going to private fintech companies increased ten-fold between 2010 and 2015, increasing from \$1.8 billion to \$12 billion.<sup>19</sup> By far, the lion's share of these investment dollars – 73% – went to firms and products targeting both the personal and small-to-medium enterprise (SME) sectors.<sup>20</sup> These sectors garner the largest share of profits in the banking system – 46% for personal/SME compared with 35% for corporate banking and 19% for investment banking.<sup>21</sup>

The focus on fintech aimed at personal finance or business to consumer (B2C) services reflects two primary factors. The first is that, unlike business systems and practices which can take longer to migrate to new opportunities, consumers are often willing to try something new, especially if it improves their customer experience, comes at a lower price, or gives them a product or service that wasn't previously available. A second is that, on the provider side, fintech innovators can offer products and services that sit atop existing financial services platforms, thus taking advantage of available infrastructure without having to bear the cost of duplication.

For example, a fintech app from a non-bank provider that links to an existing bank account effectively takes advantage of both the brick-and-mortar infrastructure embodied by the home bank's branches and account safeguards such as customer identification regulations that the home bank must meet. While some argue that additional regulatory oversight is needed for non-bank providers of financial services equivalent to those faced by incumbent financial institutions, innovators are currently able to take advantage of that opening in the financial services landscape and to benefit from the cost savings.

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## THE POTENTIAL

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Fintech innovations present an exciting opportunity to expand financial health and inclusion. The advantages of these innovations include lower costs for services driven by greater efficiencies and targeted marketing, improved transparency about product and services terms and costs, greater financial control, faster and/or real-time deposits and expenses reflected in account balances, new products and services specifically aimed at the underserved, and improved safety and security of funds. All of these fintech advantages have great potential and already benefit many consumers, including those who are currently underserved.

As just one example, Credit Karma, which allows its members to access their credit report for free and thus gives consumers an important tool to gain greater control over their financial health, is ranked the number one valued company in the personal finance and investment management sector and was recently listed as one of "10 Fintech Companies Giving Banks a Run for their Money."<sup>22, 23</sup> Started in 2007, Credit Karma currently has 60 million members and will shortly provide a means for its members to file their U.S. income taxes for free. Later in the report, we discuss the many ways that fintech innovation provides new opportunities for financial inclusion along with examples of how innovators are addressing the specific needs of the underserved. And many, like Credit Karma, are already achieving scale.

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<sup>19</sup> Citi GPS: Global Perspectives and Solutions. "Digital Disruption: How FinTech is Forcing Banking to a Tipping Point." March 2016. P 4. Accessed online: <https://ir.citi.com/puljT9V0Vo%2bvpc9RL2PEr26kiSGlvSxjFfLIK3Kum38daQckaOKRnVTtYicAjrGjOrPWjflasEQGQFyo8Fn5CQ%3d%3d>

<sup>20</sup> Ibid.

<sup>21</sup> Ibid.

<sup>22</sup> The New York Times. "Ranking the Top Fintech Companies." March 6, 2016. Accessed online: [https://www.nytimes.com/interactive/2016/04/07/business/deal-book/The-Fintech-Power-Grab.html?\\_r=0](https://www.nytimes.com/interactive/2016/04/07/business/deal-book/The-Fintech-Power-Grab.html?_r=0)

<sup>23</sup> Arsene, Codrin. "10 Fintech Companies Giving Banks a Run for their Money." Y Insights March 16, 2017. Accessed on-line: <https://ymedialabs.com/top-10-fintech-companies/>

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## THE CHALLENGE

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Although there is enormous potential for fintech innovation to serve LMI consumers, there are also challenges that must be overcome.

In the United States, the share of the consumer “banking wallet” disrupted by digital channels for all consumers, not just the underserved, is still estimated to be small – 1% in 2016.<sup>24</sup> However, analysts expect that share of the consumer banking wallet to grow rapidly to 10% by 2020.<sup>25</sup> With the development of fintech at a flexion point, it’s unclear whether fintech will fundamentally alter the financial inclusion landscape in the U.S. One possibility is that a combination of weaker consumer regulations and a push towards innovation directed at the middle and higher ends of the market (in order to underwrite the investment costs of implementing digital services) will result in an increasingly complex and confusing array of products and services. The resulting complexity will add to the challenge of safely navigating the financial services landscape.

However, if LMI consumer needs are not prioritized, the catalytic role that fintech innovation could play would be squandered. But another possibility is that new collaborations among a diverse array of partners – incumbent financial institutions, fintech innovators, nonprofits, and the public sector – can transform the financial services landscape and allow fintech to emerge as a true catalyst for meaningful improvements in financial inclusion.

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## RECOMMENDATIONS

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To accomplish this transformation, we argue that private, public, and philanthropic investments are needed in five key areas:

- ① Expanded research and investment in fintech innovation targeted specifically to the needs of the underserved;

- ② Greater investment in the capacity of those parts of the non-profit and public sectors that are working directly with the underserved to link them to appropriate financial products and services and to improve their financial health;
- ③ Greater access of the underserved to reliable digital technology, including universal broadband and mobile technology;
- ④ An updated regulatory landscape that both protects consumers and allows for controlled experimentation; and
- ⑤ Improvements to the banking system, specifically modernization that allows faster payments and posting of deposits and universal adoption of enhanced security to address widespread consumer concerns about the safety of digital financial services.

We believe that significant investments in these five areas could help to build a financial ecosystem that better meets the needs of the underserved and that assists those struggling to reach or maintain financial health. However, it would be naive to think that an improved financial services landscape in and of itself can turn the tide for many households who must deal with increasingly volatile incomes, inadequate and stagnating wages, declining access to workplace benefits such as retirement, sick leave, and healthcare, and a fraying social safety net. We cannot ignore the broader context of what needs to be achieved to enable American households to avoid the degree of financial instability with which many are faced, undermining their prosperity and that of the communities in which they reside.

The remainder of this paper is organized as follows. In Section II, we go into greater depth about **the emergence** of digital financial services in the United States and place American consumer adoption of digital financial services in a global context. In Section III, we examine **the potential** of fintech to expand financial inclusion (including a discussion of whether and how underserved consumers access fintech). In Section IV, we discuss **the investments that are needed** to realize the potential that fintech represents.

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<sup>24</sup> Citi GPS: Global Perspectives and Solutions. “Digital Disruption: How FinTech is Forcing Banking to a Tipping Point.” P 4. March 2016. Accessed online June 2016: <https://ir.citi.com/puljT9V0Vo%2bvpc9RL2PEr26kiSGlvSxjFfLlIK3Kum38daQckaOKRnVtYIcAjRgiOrPWjflasEGGQFyo8Fn5CQ%3d%3d>

<sup>25</sup> Ibid.

## GLOSSARY

### What's in a Word – A Glossary

#### DIGITAL FINANCIAL SERVICES

This term refers to financial services delivered through digital means (for instance, on mobile phones, online, and through products such as stored value cards).

#### FINANCIAL INCLUSION

This term refers a goal: for those underserved by current banking services to be able to access financial services that are high quality, fairly priced, and to maintain or improve their financial health.

#### FINANCIAL WELL-BEING

Referring to the four dimensions of well-being (possessing control over ongoing finances, having the ability to cope with a financial shock, setting and being on track to achieve financial goals, and having a sense of financial freedom rather than being consumed with financial worry), we use the Consumer Financial Protection Bureau's definition of this term.<sup>26</sup>

#### FINTECH

A portmanteau of the words financial and technology, “fintech” has become common in many circles. However, there is not clear consensus on its meaning or its use.<sup>27,28</sup> We use the term broadly to describe the application of technology innovation to the financial services sector.

#### INCUMBENT BANKS AND CREDIT UNIONS

Established financial institutions (as distinct from new entrants into the financial services landscape).

#### MOBILE BANKING

Mobile banking allows consumers to use their mobile phones to perform transactions they might otherwise conduct from their personal computers or at a bank. Similarly, mobile payments enable consumers to use a mobile device to transfer funds to another person (sometimes referred to as person-to-person, peer-to-peer, or “P2P” transfers) or to pay for goods or services at retail locations.<sup>29</sup>

#### NON-BANK FINANCIAL INSTITUTIONS

These organizations operate without a formal bank charter and cannot take consumer deposits, but they may provide services such as check cashing, money transmission, and certain kinds of loans.

#### NON-TRADITIONAL PROVIDERS

Financial services providers other than banks and credit unions, such as PayPal or Amazon.

#### ONLINE BANKING

This term refers to banking services (such as account balance checks) delivered online.

#### UNDERSERVED

This term includes the unbanked and the underbanked. Unbanked individuals have no checking or savings accounts, and underbanked individuals have a checking or savings account, but use non-traditional providers such as payday lenders or check cashing outlets.

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<sup>26</sup> United States Consumer Financial Protection Bureau. “Financial Well-Being: The Goal of Financial Education.” January, 2015. P. 5.

<sup>27</sup> Arner, W. Douglas., Janos N. Barberis, and Ross P. Buckley. “The Evolution of Fintech: A New Post-Crisis Paradigm?” October 20, 2015. Accessed online: [https://papers.ssrn.com/sol3/Papers.cfm?abstract\\_id=2676553](https://papers.ssrn.com/sol3/Papers.cfm?abstract_id=2676553);

<sup>28</sup> Schueffel, Patrick. “Taming the Beast: A Scientific Definition of Fintech.” December 2016. Accessed online: [https://www.researchgate.net/publication/314437464\\_Taming\\_the\\_Beast\\_A\\_Scientific\\_Definition\\_of\\_Fintech](https://www.researchgate.net/publication/314437464_Taming_the_Beast_A_Scientific_Definition_of_Fintech)

<sup>29</sup> Federal Deposit Insurance Corporation. Mobile Banking and Payments: New Uses for Phones...and Even Watches.” 2015. Accessed online:<https://www.fdic.gov/consumers/consumer/news/cnsum15/mobilebanking.html>





# THE EMERGENCE

of Fintech in Consumer Financial Services in a Global Context

FINTECH COMPANIES represent a growing portion of the United States financial services landscape and present an exciting opportunity to expand financial inclusion. A global perspective, presented in this section, helps us understand how the American fintech landscape is unique. Even more, this perspective suggests ways that the U.S. can support important the sector's infrastructure needs.

American consumers continue to expand their use of digital financial services, however, face-to-face interactions are still desired by many. For instance, according to a recent consumer survey by Accenture, online banking is now the dominant channel for accessing financial services, with 28 percent of consumers expressing a preference for online banking as their primary means of access and 60 percent of consumers reporting that they use it at least weekly.<sup>30</sup> However, this is only slightly above visiting a bank branch which was the first choice for 24 percent of those surveyed. Looking to the future, 87 percent of those surveyed stated they would use bank branches in the future, including 86 percent of millennials.<sup>31</sup> When asked why they would anticipate using their bank branch in two years, the two most common responses reflect the value that consumers continue to place on human interaction. At the top of the list was the response "I trust my bank more when speaking to someone in person" (47 percent of respondents) and the second most common response was "I receive more value from my bank when speaking to someone in person" (40 percent of respondents.)

RATHER THAN REPLACING TRADITIONAL CHANNELS SUCH AS BANK BRANCHES, CONSUMERS ARE DIVERSIFYING HOW AND WHERE THEY ACCESS FINANCIAL SERVICES.

Consumers viewed mobile financial services, in contrast, as primarily transactional in nature, with the top three reasons for using this channel being "making a payment, depositing a check, and viewing a past transaction." But while use of mobile banking may be limited in scope, the share is growing. According to the Federal Reserve, mobile banking expanded steadily among mobile phone owners with a bank account, growing from 33 percent in 2013 to 39 percent in 2014 and 43 percent in 2015.<sup>32</sup> The Accenture survey also highlights the growing popularity of virtual online banking. In response to the question "In the past 12 months, have you switched to a new financial services provider or other company from your main bank?" 11 percent of those surveyed said they had switched to an online bank and another 3 percent to an online payments provider. According to Accenture, virtual online accounts are attracting consumers interested in simple transactions with low fees<sup>33</sup> - certainly features that would also be attractive to the underserved.

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## MEASURING UPTAKE

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While consumers in the U.S. continue to embrace fintech services at an accelerating pace, the United States lags other parts of the world in the overall share of its consumers that currently utilize digital channels for financial services. Comparisons of the United States and Asia make this particularly apparent but the U.S. disadvantage also holds when comparing the U.S. and some parts of Europe. For example, in the United States in 2016, 46% of consumers reported that they used at least one non-traditional financial firm for financial services, compared with 84% in China and 77% in India. The comparable share in the UK stood at 49%, 43% in Australia, 41% in Japan, 40% in Canada and, at the bottom of countries surveyed, 29% in the Netherlands (Table 1).<sup>34</sup>

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<sup>30</sup> Accenture Consulting. "2016 North America Consumer Digital Banking Survey." Accessed online: [https://www.accenture.com/t20160609T222453\\_w\\_/us-en/\\_acnmedia/PDF-22/Accenture-2016-North-America-Consumer-Digital-Banking-Survey.pdf](https://www.accenture.com/t20160609T222453_w_/us-en/_acnmedia/PDF-22/Accenture-2016-North-America-Consumer-Digital-Banking-Survey.pdf)

<sup>31</sup> Ibid. FIGURE 4. "Consumers want human interaction at the bank branch of the future." P. 11.

<sup>32</sup> Board of Governors of the Federal Reserve System. "Consumers and Mobile Financial Services 2016." March 2016. P. 1.

<sup>33</sup> Accenture Consulting. 2016. "FIGURE 2. Online-virtual banks followed by payments providers lead in net switching among consumers who switched." P. 7.

<sup>34</sup> Capgemini and LinkedIn. "World FinTech Report 2017." Page 13. Accessed on-line at: [www.worldfintechreport2017.com](http://www.worldfintechreport2017.com).

Table 1.

CONSUMER USE OF NON-TRADITIONAL SOURCES OF FINANCIAL SERVICES BY COUNTRY IN 2016	
Country	Share of Survey Respondents*
China	84.4
India	76.9
United Arab Emirate	69.6
Hong Kong	53.5
Spain	53.3
Singapore	53.0
Turkey	51.6
United Kingdom	48.8
United States	45.8
Australia	42.8
Japan	40.6
Canada	39.6
France	36.2
Belgium	30.4
Netherlands	29.0

\* Among survey respondents using only traditional or a combination of both traditional and nontraditional financial services.  
Source: Capgemini and LinkedIn. World Fintech Report 2017. P 13.

In a similar survey conducted by Ernst and Young, digitally active consumers were asked about their use of fintech services over the previous six months (Table 2). Their report identified “17 distinct services offered by FinTech organizations and non-traditional providers... [and these] services are considered within the 5 broad categories of money transfer and payments, financial planning, savings and investments, borrowing, and insurance.... We define a regular FinTech user as an individual who has used two or more FinTech services in the past six months.”

Because the study defines fintech adopters more narrowly, the overall shares of fintech adopters by country are all lower. In the United States, for example, the shares drop from 46 to 33 percent of consumers. Individual countries also shift their ranking to a certain degree – for example, the United Kingdom jumps from being ranked in the middle of the first list (share of users of nontraditional financial services) to almost the top of the second list (share of digitally active consumers using two or more fintech services). In both lists, the United States lands squarely in the middle of the pack.

## THE EMERGENCE OF FINTECH IN CONSUMER FINANCIAL SERVICES IN A GLOBAL CONTEXT

Table 2.

FINTECH ADOPTION AMONG DIGITALLY ACTIVE CONSUMERS* BY COUNTRY IN 2016	
Country	Share of Survey Respondents*
China	69
India	52
United Kingdom	42
Brazil	40
Australia	37
Spain	37
Mexico	36
Germany	35
South Africa	35
<b>United States</b>	<b>46</b>
Hong Kong	32
South Korea	32
Switzerland	30
France	27
Netherlands	27
Ireland	26
Singapore	23
Canada	18
Japan	14
Belgium and Luxemburg	13
<p>* Share of digitally active consumers who have used two or more fintech services in the previous six months.            Source: Ernst and Young FinTech Adoption Index 2017: The rapid emergence of FinTech. 2017.</p>	

Narrowing consumer sub-segments still further, a survey by Ernst and Young explored the fintech penetration of those most likely to be early adopters – digitally active consumers in large cities around the world. Among this group, American consumers assume the lead. The survey found that New York City possessed the highest share with 33.1 percent of digitally active consumers reporting fintech use compared with 29.1 percent in Hong Kong, 25.1 percent in London, 16.3 percent in Sydney, and 14.7 percent in Singapore.<sup>35</sup>

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### CASE STUDY: CHINA

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In Asia, the lack of basic banking services in many countries created a void where fintech and other non-bank companies stepped in to meet consumer demand, thus effectively leap-frogging over the development of the kind of brick-and-mortar financial services infrastructure available to consumers in the U.S. and Europe.

**In China**, a Citigroup analysis posits that the fast growth of FinTech stems from four factors: the deep penetration of internet access and mobile phone usage, a large e-commerce sector focused on payments, a less-developed incumbent financial system, and a regulatory structure that has accommodated new entrants into the financial services ecosystem.<sup>36</sup> Additionally, the presence of non-bank firms with access to deep pools of capital has resulted in China's e-commerce sector being the largest in the world.<sup>37</sup> A comparison of China and the U.S. by Y Media Labs for the purpose of understanding China's dominant position in fintech investment also shows that the share of China's consumers who are digital-savvy is 50% higher than that in the United States.<sup>38</sup> China also has over four times the number of young residents (Millennials and Generation

Y) than U.S., and over two and a half times the number of smartphone users.<sup>39</sup> In a similar vein, the high penetration of mobile and weak consumer banking systems have contributed to the rapid growth of fintech adoption among consumers in other emerging markets such as India, Kenya, the Philippines, and Indonesia.<sup>40</sup>

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### CASE STUDIES: SWEDEN & THE U.K.

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In some parts of Europe, in contrast, some argue that the driving force for accelerated fintech adoption has been a "pro-fintech philosophy"<sup>41</sup> on the part of governments. **In Sweden, for example**, early infrastructure investments gave rise to the universal or nearly universal availability of high speed broadband which has made possible the high penetration of mobile and internet use among consumers. Other elements of the Swedish ecosystem contributing to the rapid adoption of fintech have been the early adoption of an e-identification system used by both the government and the banking sector, tax credits that allowed for the rapid acquisition of affordable but high-quality home computers, and now a national push for cross-sector partnerships through the Financial Sector Public-Private Partnership (FSPOS) initiative.<sup>42</sup>

Elsewhere in Europe, **the United Kingdom has a reputation** for possessing a regulatory system that fosters fintech collaboration and innovation. In particular, the U.K.'s Innovation Hub, under the oversight of the Financial Conduct Authority, allows for the controlled and time-limited suspension of regulatory requirements in order to foster fintech experiments. A study comparing fintech ecosystem attributes across several countries found that the supportive policy environment of the UK was a primary strength of its developing fintech industry, while the U.S. led overall due its strengths in talent, access to capital, and demand.<sup>43</sup> Not surprisingly, some U.S. fintech companies have expressed support for a regulatory regime that would provide the kinds of flexibility and support for innovation

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<sup>35</sup> Capgemini and LinkedIn. "World FinTech Report 2017." Page 13. Accessed on-line at: [www.worldfintechreport2017.com](http://www.worldfintechreport2017.com).

<sup>36</sup> Citi GPS: Global Perspectives and Solutions. "Digital Disruption: How FinTech is Forcing Banking to a Tipping Point." March 2016. P. 9. Accessed online: <https://ir.citi.com/puljT9V0Vo%2bvpc9RL2PEr26kiSGIvSxjFFlIK3Kum38daQckaOKRnVTtYicAjRgOrPWjflasEQGQFyo8Fn5CQ%3d%3d>

<sup>37</sup> Ibid.

<sup>38</sup> Arsene, Codrin. "10 Fintech Companies Giving Banks a Run for their Money." Y Insights March 16, 2017. Accessed on-line: <https://ymedialabs.com/top-10-fintech-companies/>

<sup>39</sup> Ibid.

<sup>40</sup> Citi GPS: Global Perspectives and Solutions. Op cit. page 10.

<sup>41</sup> Citi GPS: Global Perspectives and Solutions. Op cit. page 24.

<sup>42</sup> Burr, Elliott. "The Fintech World Series: Sweden." Kurtosys. May 10, 2017. Accessed online: <https://blog.kurtosys.com/the-fintech-world-series-sweden/><sup>45</sup> Ernst & Young. "UK FinTech on the Cutting Edge – An Evaluation of the International FinTech Sector." P. 7.

<sup>43</sup> Ernst & Young. "UK FinTech on the Cutting Edge – An Evaluation of the International FinTech Sector." P. 7.

## THE EMERGENCE OF FINTECH IN CONSUMER FINANCIAL SERVICES IN A GLOBAL CONTEXT

they view as being offered by that in the UK.<sup>44</sup> At the same time, balancing the need for fintech innovation in order to stay competitive against the ongoing and primary mandate for regulations to ensure the stability of the banking system and to protect consumers is a complex issue requiring a great deal of care.

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### CASE STUDY: INDIA STACK

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**India presents** a fascinating example of a country where, similar to the European examples, public investments have funded the essential infrastructure for widespread digital access. However, unlike Europe and similar to other developing nations, it also lacks the traditional banking infrastructure of a country like the United States. As a result, roughly 47 percent of Indians are unbanked, one of the highest rates of the underserved in the world.<sup>45</sup>

To address this financial inclusion issue, as well as to increase access to education and healthcare, the government of India created an integrated platform known as the “India Stack.” Designed and coordinated by several key agencies and authorities, the India Stack provides consumers with a nationally accepted unique ID and e-signature capacity for safe digital transfers of money both between persons (P2P) and between businesses and persons (P2B). Even more, it allows financial services providers access to a “Unified Payments Interface” that transfers funds between accounts, which supports the growth of a dynamic fintech industry to serve unmet consumer needs.

As promising as the India Stack sounds for expanding financial inclusion, the initiative is still very new and has not fully overcome the kinds of issues that confront many countries as they increase access to digital financial services. As summarized in a recent profile of the platform:

“India Stack holds the potential to create a seamless system where all individuals and businesses can transact in a paperless and cashless fashion. Utilizing the India Stack architecture is bound to have very significant impacts on India’s drive to extend financial services to each and every one of its citizens. However, for these aims to be realized there is a need for improvement in connectivity infrastructure, bridging the gender gap in the ownership and use of technology, and encouraging all the players in the ecosystem to adopt digital payments at all points of the value chain. Furthermore, stakeholders must also pay attention and closely monitor the data security and privacy concerns of consumers.”<sup>46</sup>

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<sup>44</sup> Binham, Caroline. “UK regulators are the most fintech friendly” Financial Times. September 12, 2016. Accessed online: <https://www.ft.com/content/ff5b-0be4-7381-11e6-bf48-b372cdb1043a?mhq5j=e1>

<sup>45</sup> Demirgüç-Kunt, Asli, and Leora Klapper, Dorothe Singer, and Peter Van Oudheusden. “The Global Findex Database 2014 – Measuring Financial Inclusion around the World.” World Bank Policy Research Working Paper 7255. World Bank Group. April 2015.

<sup>46</sup> Shreya, Chatterjee. “Digital Financial Services: India Stack and its Role in Financial Inclusion.” IMFR Lead. Accessed online: <http://ifmrlead.org/wp-content/uploads/2016/12/India%20Stack%20and%20Financial%20Inclusion.pdf>



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## TAKEAWAYS

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In cases around the globe, it is clear that public sector involvement has the capacity to aid development and uptake. The kind of public investment that Sweden has made in universal consumer access to computer technology and broadband, in addition to making digital services more secure through initiatives such as universal e-identification, has allowed Sweden to emerge as a global leader in fintech innovation and digital financial services adoption. Flexible and creative regulatory frameworks that allow experimentation by fintech innovators – both incumbent and new entrants to the market – are giving countries like Sweden and the U.K. a competitive edge in attracting fintech innovators.

However, regulators need to take great care to hold consumer and security protections to a high standard. The fact that both the U.K. and Sweden have a reputation for ensuring high standards of consumer protection at the same time they support innovation is encouraging. But, as more countries begin to use their regulatory environment as an important factor in attracting fintech investment, forward-thinking regulators need to support both national and international frameworks to avoid a race to the bottom.

Lack of access to needed financial services in places like China catalyzed the development of a digital financial services landscape that leapfrogged over the development of a traditional banking infrastructure at a speed unimagined a decade ago. This swift move to digital is now being replicated in many developing economies. In the American context, consumers frustrated by what they view as the shortcomings of traditional banking may also go directly to digital financial services providers in the same way that they have utilized providers of alternative financial services such as payday lenders. Here again, a robust regulatory framework must ensure that both consumer and safety and soundness protections remain strong in a changing financial services environment so that digital channels offer high-quality consumer alternatives.

# THE POTENTIAL

for Consumer-Facing Digital Technology to Expand Financial Inclusion and Capability for Underserved Consumers

AS FINTECH HAS EMERGED as an important element of the financial services landscape, its potential expand access to LMI consumers has become clear. While there are many challenges ahead, there are also opportunities. Data show that people of color and lower-income consumers are already adopting financial technology, and many providers have realized that this consumer segment has unique needs that can be met by fintech tools.

In this section, we explore the characteristics of the underserved that can help us to understand their financial services needs, the reasons they give for being unbanked or underbanked, and what they desire from financial services providers. We then discuss several dimensions of fintech innovation that have potential for meeting the needs of the underserved and provide examples of innovative fintech products that meet each of those dimensions. Lastly, we explore the barriers to the adoption of digital financial services that remain and how can they be addressed.

## A. Profiles of the Unbanked and Underbanked

Understanding the diversity found in both the unbanked and underbanked populations can assist us in exploring how digital financial services might help address their needs. As noted previously, the FDIC reports that, according to their 2015 survey, 7 percent of all U.S. households – approximately 9 million households with 16.5 million adults – lack a checking or savings account (the unbanked). An additional 19.9 percent of households – approximately 24.5 million households with 51 million adults – rely on non-bank providers of financial services, even though they possess a bank account (the underbanked).<sup>47</sup> The 7 percent share of households that are unbanked represents a significant drop from the 7.7 percent reported in 2013 and, while it still includes too many households, it does show movement in the right direction and is the lowest share since the FDIC survey began. The share of U.S. households characterized as underbanked has not changed since 2013.<sup>48</sup> Below are some additional dimensions of the unbanked population that can inform our understanding of which groups should be the focus of efforts to reduce the number of underserved households and to how to address their financial services needs. All statistics are from the FDIC survey of unbanked and underbanked households in 2015.<sup>49</sup>

- > The relationship of the unbanked and underbanked households to the traditional banking system is often complex and shifts over time. For example, more than half of unbanked households were previously banked and approximately 26 percent say they are very or somewhat likely to open an account in the coming year.
- > The unbanked are highly likely to be low-income. Of those with incomes of \$15,000 or less, 25.6 percent were unbanked compared with 7 percent overall, and for those with incomes between \$15,000 and \$30,000, 11.8 percent were unbanked.
- > The unbanked have lower levels of education than the banked. For those with less than a high school education, 23.2 percent were unbanked compared with 9.7 percent for those with a high school education, 5.5 percent for those with some college, and just 1.1 percent for those with a college degree.
- > Black households are approximately six times as likely to be unbanked (18.2 percent) than White households (3.1 percent) and Hispanic/Latino households are roughly 5 times as likely as White households (16.2 percent). Asian households had just slightly higher rates of being unbanked compared with Whites (4.0 percent).
- > Persons with a disability aged 25 to 64 also showed high rates of being unbanked – 17.6 percent compared with those in the same age group without a disability of 6.5 percent.

<sup>47</sup> FDIC. "2015 FDIC National Survey of Unbanked and Underbanked Households ." October, 2016. P. 13.

<sup>48</sup> Ibid.

<sup>49</sup> Ibid.



- > Households with higher income volatility were more likely to be unbanked. The unbanked rate for households who also reported that their income varied a lot from month to month was twice as high (12.9 percent) as those who reported their incomes as steady from month to month. (5.7 percent.) And among the lowest income segment – those with incomes of less than \$15,000 annually – the rate of being unbanked was 30 percent for those with incomes that varied somewhat or a lot, compared to those with low but steady incomes.
- > Even at higher income levels, income volatility appears to contribute to being unbanked. Among those earning between \$50,000 and \$75,000, the rate of being unbanked for those with incomes that varied a lot (4.1 percent) was more than four times the rate for households with a steady income (0.9 percent.)
- > By region, both unbanked and underbanked rates were highest in the South.

## B. The Reasons Consumers Give for Being Unbanked or Underbanked

Underserved households give a variety of reasons for remaining unbanked or underbanked.<sup>50</sup> In a 2011 study of unbanked and underbanked households, the FDIC found that the most common reason given for lacking a banking account was that the household lacked sufficient funds (38 percent of those surveyed). The second most common reason given was that they “do not need or want an account” (26 percent). And while some consumers express concern that banks won’t view them as desirable customers, according to the same study: “Fewer than 10 percent of unbanked individuals report identification requirements, credit issues, or banking history issues as a primary obstacle to opening an account, although this was more of a concern among Hispanic households (15 percent).”<sup>51</sup>

In several more recent studies, other reasons consumers reported for not opening an account or for closing an account were the following:<sup>52</sup>

- > **A lack of trust in banks**, particularly if they had been assessed non-sufficient funds (NSF) fees after bouncing a check or had been turned down for a loan previously. Some consumers coming to the United States from countries where banks had been involved in problems, such as instances of fraud or banks closing without warning to their accountholders, also appear to transfer that lack of trust of their country of origin’s banking system to the United States.
- > **A lack of transparency** regarding when fees and higher interest rates would be assessed, leaving consumers feeling that the bank had hidden the terms of the account in small print and hadn’t fully explained the fee and penalty structure. Even though consumers know they ultimately may pay more to cash a check at a check casher, for instance, they also felt they knew exactly what they would be charged which gave them a greater sense of control over their finances.
- > **The lag time** between when a consumer deposited a check in his or her account and when it was processed and posted as being available. This is particularly problematic for consumers who execute most of their financial transactions in cash and thus need quick access to their funds.
- > Some consumers perceive an **unfriendly atmosphere** at banks, since many alternative services providers know customers by name. Some consumers stated that the suits and ties typically worn at mainstream banks were intimidating and made them feel out of place.
- > **A lack of convenient hours**, particularly non-workday hours such as evenings and weekends.
- > **A lack of convenient locations** or, in some cases, the lack of mainstream banks altogether.<sup>53</sup>

<sup>50</sup> Rengert, Krisopher M. and Sherrie L.W. Rhine. “Bank Efforts to Serve Unbanked and Underbanked Consumers: Qualitative Research.” May 25, 2016. P. 7-8. [Economicinclusion.gov](http://Economicinclusion.gov)

<sup>51</sup> Burhouse, Susan. Matthew Homer, Yasmin Osaki, and Michael Bachman. “Assessing the Economic Inclusion Potential of Mobile Financial Services.” FDIC. P. 7. June 30, 2014.

<sup>52</sup> See, for example, Rengert, Krisopher M. and Sherrie L.W. Rhine. “Bank Efforts to Serve Unbanked and Underbanked Consumers: Qualitative Research.” May 25, 2016. P. 7-8. [Economicinclusion.gov](http://Economicinclusion.gov); and Dahl, Drew and Michelle Franke. “Banking Deserts Become a Concern as Branches Dry Up.” St. Louis Fed The Regional Economist. Second quarter 2017. [https://www.stlouisfed.org/-/media/Publications/Regional-Economist/2017/Second\\_quarter\\_2017/bank\\_deserts.pdf](https://www.stlouisfed.org/-/media/Publications/Regional-Economist/2017/Second_quarter_2017/bank_deserts.pdf)

<sup>53</sup> Ibid.

# THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS

## C. What Underserved Consumers Want from Financial Services Providers

The picture that emerges from the profile of the unbanked and underbanked is one of a diverse population struggling to manage their financial lives in the face of income volatility and a banking sector that they do not trust. Reasons for this distrust of mainstream financial institutions include: the perceptions of high and unpredictable fees, slow deposit processing, and other factors. Nevertheless, many unbanked and underbanked households aspire to open a checking and/or savings account and recognize that paying exorbitant fees and interest to manage their financial transactions contributes to their financial instability. Given their need for greater financial control, what do underserved consumers say about the features they desire in financial services and products?

In a recent study of the potential for mobile financial services to engage underserved consumers, the FDIC identified seven core financial services needs of underserved consumers that provide a useful framework as outlined below:<sup>54</sup>

- > Control – Consumers want to know exactly when and why money is deposited and withdrawn from accounts; and they want to be certain about the terms and conditions of any financial products.
- > Access – Consumers expect financial providers to make their funds available quickly because they often need to use funds as soon as they are received to pay bills and make purchases.
- > Convenience – Consumers value convenience, both in terms of time and effort.
- > Affordability – Consumers are sensitive to the predictability and level of fees for account maintenance and everyday transactions, such as accessing cash.
- > Security – Consumers want protection from physical and electronic theft of funds or personal information.
- > Customer Service – Consumers expect to have the ability to access face-to-face help through their preferred banking channel.
- > Financial Management – Consumers seek advice on money management or the availability of tools to meet financial goals (e.g., spending reports, savings trackers).

While consumers are moving in the direction of greater use of digital platforms such as online banking and mobile, they are also utilizing digital financial services from both traditional banks and credit unions and from non-bank fintech providers. In addition, consumers may receive assistance in accessing financial products from third party intermediaries, such as nonprofit community-based organizations and employers.

Based on an FDIC study and our own interviews with experts, underserved consumers are sophisticated in their understanding of financial institutions, non-bank fintech companies, and non-profit intermediaries. They understand that each possesses advantages and disadvantages in meeting their needs and each has an important role to play in scaling up financial inclusion.<sup>55</sup>

Where consumers feel **non-bank fintech providers** have an edge:

- > Speed and ease of account opening – User-friendly interfaces on-line and via mobile make it fast and easy for consumers to open a new account without having to go to a physical branch bank or credit union with documentation in hand.
- > Convenience – The ability to bank at any time – not needing to rely on branches during business hours – means that customers can bank at any time of the day or night.
- > Faster and 24/7 access to account information – Online and mobile account access is almost instantaneous and doesn't require waiting for customer service to pick up the phone or a wait in line to speak with a teller. For consumers living paycheck to paycheck, knowing when a deposit has been posted can be critical to avoiding costly fees and/or having transactions declined.
- > Affordability – Many free or low-cost fintech options exist that provide a range of services, from payments to savings.

<sup>54</sup> Burhouse, Susan, Benjamin Navarro and Yazmin Osaki. "Opportunities For Mobile Financial Services To Engage Underserved Consumers: Qualitative Research Findings." FDIC. May 25, 2016. P. 1.

<sup>55</sup> Ibid. p. 22-26.

- > Fewer fees or no fees, plus greater transparency – Somewhat related to affordability, consumers perceive that non-bank options have fewer fees or are more clear about what fees will be assessed and when. For example, some consumers prefer a non-traditional provider whose fees may be somewhat higher but they are clear about exactly what the cost will be and can factor it into their financial planning.
- > Ease of use and innovative consumer interfaces – Many fintech innovations focus on improving the customer experience as a primary means to attract new users.

Where consumers feel that **traditional financial services providers** (banks and credit unions) have an edge:

- > Security of account information and funds – Consumers feel greater confidence in the existing framework of banking regulations and consumer protections that apply to traditional financial services providers and are less confident that non-bank providers meet the same levels of security.
- > Ability to speak with financial institution personnel in person and receive financial advice – While having to go to a branch bank is perceived as a negative in some respects, consumers also appreciate the fact that they can go to a branch and speak with a teller or other branch personnel when they need account assistance or other financial advice.
- > In-person account opening – Some consumers prefer to meet with their financial services provider in person when opening an account so they can understand their options and feel secure that the institution is legitimate.
- > Wider variety of products available – Some consumers feel that traditional providers are more likely to offer them alternative products, such as checking or savings accounts with a variety of features as well as credit cards, check cashing services, and more.

Where consumers feel that **nonprofit financial services providers** have an edge:

- > Trustworthiness – Community-based organizations often provide other supportive services and have a proven track record of assistance to residents. Nonprofits are felt to have the best interests of consumers in mind, rather than promoting products and services that consumers may not need and/or that are chosen because they contribute to the organization's bottom line.
- > Ability to talk with someone in person and ask for advice – Consumers and providers highlight the desire to speak to someone one-on-one for financial advice. Consumers may feel comfortable using digital financial tools, but nevertheless want to be able to meet with someone face-to-face, especially in times of financial stress or when facing a major financial decision.
- > Ability to combine financial services with other programs, such as affordable housing or workplace services – Consumers appreciate the ability to access financial services and financial advice that are integrated into systems they already use – such as workplace retirement systems or affordable housing programs.

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## TAKEAWAYS

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We note that the advantages outlined above are largely based on consumer experiences and perceptions, rather than an in-depth rigorous comparison, and are generalized across a broad range of providers. For example, some non-bank providers may have very secure systems and some banks and credit unions may provide very affordable services with few unexpected fees. But, understanding consumer perceptions can inform efforts to better meet their needs and address their concerns across a range of products and providers.

THERE ARE OPPORTUNITIES FOR COLLABORATION: FOR EACH CLASS OF PROVIDER TO BUILD ON ITS STRENGTHS, TO ADDRESS ITS PERCEIVED WEAKNESSES, TO BUILD ON EXISTING PARTNERSHIPS, AND TO DESIGN NEW COLLABORATIONS THAT TAKE ADVANTAGE OF EACH OTHERS' PERCEIVED STRENGTHS.

# THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS

## IMPORTANCE OF BANK BRANCHES

Beyond what consumers want, it is important to understand how consumers interact with their financial services providers across multiple channels (Table 3).<sup>56</sup> Among survey respondents with a bank account, going to a bank branch remains the most common means of accessing banking services (84 percent), while using an ATM is the second most common means of access (75 percent).

The share of those utilizing online banking (71 percent) fell just below those using an ATM, confirming our earlier finding that online banking is gaining acceptance and popularity. The share of those using mobile banking fell far below bank branches, ATM, and online banking at just 38 percent, while account holders used telephone banking at even lower rates (30 percent).

Table 3.

HOW BANK ACCOUNT HOLDERS ACCESS BANKING SERVICES <sup>57</sup>	
Means of Access	Share of Survey Respondents*
Bank Branch	84%
ATM	75%
Online Banking	71%
Mobile Banking	38%
Telephone Banking	30%

\*Among those with a bank account regardless of whether they own a mobile phone and/or have internet access.

<sup>56</sup> Board of Governors of the Federal Reserve System. "Consumers and Mobile Financial Services 2016." March 2016. "Figure 2: Usage of different means of accessing banking services." Page 9.

<sup>57</sup> Ibid. Box 2. "Banking Status and the Use of Mobile Banking and Payments - continued." Figure A. Phone ownership by banking status and Figure B. Mobile banking and payments use by banking status. Page 11.

Given the continued dominance of bank branches as the means by which consumers access banking services, what does the reduction in the number of U.S. bank branches over the past decade mean for expanded financial inclusion? According to a report by the Federal Reserve Bank of New York, U.S. banks closed over 4,800 branches between 2009 and 2014. Though these closings have occurred across multiple geographic regions and census tracts, lower-income tracts, minority neighborhoods, and rural communities continue to be most deeply affected by the lack of brick-and-mortar bank branches.

This is, in large part, due to the sweeping deregulation that occurred in the financial services sector in the 1990s.<sup>58</sup> To a lesser extent, some banks have slightly increased their branch presence, but that has occurred in primarily urban and more economically affluent cities as part of a customer acquisition strategy, though this trend is not necessarily expected to continue.<sup>59,60</sup> While innovations in fintech can play a key role in increasing financial inclusion, particularly in these bank deserts where few or no physical bank branches exist, research indicates that the availability of brick-and-mortar financial services within communities is associated with positive financial health outcomes.<sup>61</sup>

Traditional brick-and-mortar branches remain the access-point through which a significant share of customers open checking and savings accounts, apply for mortgages, and access other forms of credit. Without a bank branch in the community, lower-income households have limited access to safe and affordable products and may turn to higher cost financial alternatives, such as payday lenders and check-cashers.<sup>62</sup>

Additionally, one of the greatest negative impacts for consumers of bank closings is seen in mortgages and small business lending, areas that translate into wealth building opportunities for individuals and economic growth for neighborhoods and communities.<sup>63</sup> This type of lending is one of the least well developed areas of fintech, leaving those without a nearby bank branch with few options for accessing this type of credit.

Finally, although the adoption of fintech has been higher among younger consumers compared to older consumers, recent research from JD Power indicates that for Millennials, in particular, the combination of mobile banking and access to a branch leads to significantly higher levels of overall satisfaction.<sup>64</sup> Despite the potential for fintech to help fill in the gaps where traditional banks and banking may be difficult to access, it is not enough on its own to fill all of the financial needs of consumers. Instead, the likely road ahead is for consumers to demand multi-channel access to their financial information and services and the challenge for providers remains making the highest and best use of each channel, thus simultaneously delivering lower costs and higher levels of customer satisfaction.

WHILE INNOVATIONS IN FINTECH CAN PLAY A KEY ROLE IN INCREASING FINANCIAL INCLUSION, THE AVAILABILITY OF BRICK-AND-MORTAR FINANCIAL SERVICES WITHIN COMMUNITIES IS ASSOCIATED WITH POSITIVE FINANCIAL HEALTH OUTCOMES.

<sup>58</sup> Morgan, Donald., Maxim Pinkovskiy, and Bryan Yang. "Banking Deserts, Branch Closings, and Soft Information." Liberty Street Economics, Federal Reserve Bank of New York. March 7, 2016. Accessed online: <http://libertystreeteconomics.newyorkfed.org/2016/03/banking-deserts-branch-closings-and-soft-information.html>

<sup>59</sup> Citi Global Perspectives & Solutions. 2016. Digital Disruption: How FinTech is Forcing Banking to a Tipping Point.

<sup>60</sup> Citi Global Perspectives & Solutions. 2017 Digital Disruption – Revisited: What FinTech VC Investments Tell Us About a Changing Industry.

<sup>61</sup> Friedline, Terri., Mathieu Despard, and Stacia West. "Navigating day-to-day finances: A geographic Investigation of brick-and-mortar financial services and households' financial health." Lawrence, KS: University of Kansas, Center on Assets, Education, & Inclusion (AEDI). 2017; Friedline, Terri, Mathieu Despard, and Stacia West. 2017. "Investing in the Future: A Geographic Investigation of Brick-and-Mortar Financial Services."

<sup>62</sup> Friedline, Terri., and Mathieu Despard. "Life in a Banking Desert." The Atlantic Magazine. March 13, 2016. Accessed online: <https://www.theatlantic.com/business/archive/2016/03/banking-desert-ny-fed/473436/>

<sup>63</sup> Ergunor, Ozgur E. "Bank Branch Presence and Access to Credit in Low- to Moderate-Income Neighborhoods." Journal of Money, Credit, and Banking, vol. 42, No. 7. October 2010; Friedline, Terri, Mathieu Despard, & Stacia West. Investing in the Future: A geographic Investigation of brick-and-mortar financial services and households' financial health." Lawrence, KS: University of Kansas, Center on Assets, Education, & Inclusion (AEDI), February 1, 2017.

<sup>64</sup> J.D. Power. U.S. Retail Banking Satisfaction Study. 2017.

# THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS

## D. Consumer Access To and Use Of Digital Financial Services

In our earlier discussion of consumer adoption of digital financial services in a global context, we noted that leading fintech countries like Sweden and China have been able to take advantage of the high shares of their populations with access to broadband and/or mobile technology. In this section, we explore the evidence on consumer access to digital financial services in the United States. To begin, we explore the question of consumer access to two tools: home broadband services and smartphones.

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### ACCESS TO DIGITAL FINANCIAL SERVICES

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In 2017, the Pew Research Center released a detailed study of consumer access to both broadband and smartphones broken down by demographic group (Table 4).<sup>65</sup> Overall in 2016, 88 percent of U.S. adults used the internet but considerably fewer – 73 percent – had home broadband access. And while home broadband access has slowed its penetration in recent years, smartphone ownership continues to increase and now stands at 77 percent of all adults as of the end of 2016, up from 59 percent in 2014 and 69 percent in 2015.

The Pew study also highlights the fact that a growing number of consumers have smartphones but no home broadband, which Pew characterizes as being “smartphone dependent.” And while having a smartphone may be replacing home broadband as the preferred channel for digital connectivity for a certain consumer segment, Pew researchers argue that it may come with its own challenges. For instance, “smartphone dependent” consumers are more likely to be affected by data-cap limits in their service plans, more likely to have to suspend or cancel their service because of financial constraints, and are often at a disadvantage when required to fill out online job applications that do not translate well to a mobile format.<sup>66</sup> The study notes that “Roughly two-thirds (69 percent) of Americans indicate that not having a home high-speed internet connection would be a *major disadvantage* to finding a job, getting health information or accessing other key information – up from 56 percent who said this in 2010.”<sup>67</sup>

When we examine home broadband access and smartphone access by demographic subgroups, we also see certain groups have much lower rates than average (Table 4). In the case of home broadband access, adults who live in rural areas (63 percent) are age 65 or older

(51 percent) are Black (65 percent) or Hispanic (58 percent), have less than a high school education (34 percent) or only a high school education (52 percent) or have an annual income of less than \$30,000 (63 percent) all are at a distinct disadvantage. Similar disparities emerge in smartphone ownership where a lack of smartphone ownership is most apparent among rural adults (67 percent), those age 65 or over (42 percent), and those with lower levels of education and income. Notably, the racial disparity in home broadband access does not carry over to smartphone ownership. However, Blacks (15 percent) and Hispanics (23 percent) have higher rates of smartphone dependency than Whites (9 percent.) The Pew findings do not reflect a technology divide between women and men in accessing digital services.

Smartphone dependency is also highest among those who are young, have lower incomes, and lower levels of education. For those opting not to subscribe to a home broadband service, cost was the most important reason cited for the decision (43 percent overall, with 33 percent naming the monthly subscription cost as the reasons and another 10 percent naming the cost of the computer). Another 12 percent felt that their smartphone performed a good enough job and 10 percent had another option outside the home.<sup>68</sup> Given the importance of financial considerations in opting out of broadband access, it is not surprising that we see higher levels of smartphone dependency among those demographic groups that are, on average, lower income.

The Pew study also notes that 25 percent of those not subscribing to broadband services expressed interest in doing so in the future (see page 40 for a discussion of this phenomenon).<sup>69</sup>

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<sup>65</sup> Pew Research Center. “Mobile Fact Sheet.” January 12, 2017. Accessed online: <http://www.pewinternet.org/fact-sheet/mobile/> and Pew Research Center. “Internet/Broadband Fact Sheet.” January 12, 2017. Accessed online: <http://www.pewinternet.org/fact-sheet/internet-broadband/>

<sup>66</sup> Pew Research Center. “Home Broadband 2015.” Page 2.

<sup>67</sup> Ibid, page 3.

<sup>68</sup> Ibid, page 3.

<sup>69</sup> Ibid, page 5.

Table 4.

U.S. ADULTS AND DIGITAL SERVICES <sup>70</sup>				
Category	Internet Use	Broadband Access	Owns Smartphone	Smartphone Dependent <sup>71</sup>
All U.S. Adults	88%	73%	77%	12%
<b>Location</b>				
Urban	89%	73%	77%	12%
Suburban	90%	76%	79%	12%
Rural	81%	63%	67%	14%
<b>Age</b>				
18–29	99%	77%	92%	17%
30–49	96%	81%	88%	13%
50–64	87%	75%	74%	11%
65+	64%	51%	42%	7%
<b>Race/Ethnicity</b>				
White, Non-Hispanic	88%	78%	77%	9%
Black, Non-Hispanic	85%	65%	72%	15%
Hispanic	88%	58%	75%	23%
<b>Gender</b>				
Female	86%	72%	75%	12%
Male	89%	74%	78%	12%
<b>Education</b>				
Less than High School	68%	34%	54%	27%
High School	81%	62%	69%	15%
Some College	94%	80%	80%	12%
Bachelor’s Degree	98%	91%	89%	5%
<b>Income Group</b>				
Less than \$30,000	79%	53%	64%	21%
\$30,000–\$49,999	90%	71%	74%	12%
\$50,000–\$74,000	95%	83%	83%	10%
\$75,000+	98%	93%	93%	5%

<sup>70</sup> Pew Research Center. "Mobile Fact Sheet." January 12, 2017. Accessed online: <http://www.pewinternet.org/fact-sheet/mobile/> and Pew Research Center. "Internet/Broadband Fact Sheet." January 12, 2017. Accessed online: <http://www.pewinternet.org/fact-sheet/internet-broadband/>

<sup>71</sup> Defined by the Pew Research Center as having a smartphone but no traditional home broadband service.

## THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS

### USE OF DIGITAL FINANCIAL SERVICES

Next, given the generally high but not universal levels of access to home broadband services and smartphones, we next explore whether digital access translates into high use of digital financial services and how those might also vary by demographic group using a study of consumers and their use of mobile financial services from the Federal Reserve.<sup>72</sup> The study examines the rates of phone ownership among the fully banked (having a checking or savings account and not using alternative financial services), the underbanked and the unbanked.

Examining the data in Table 5, we see that 70 percent of the fully banked and underbanked owned a smartphone, compared with only 40 percent of the unbanked. Among mobile phone owners, the fully banked were much less likely to utilize mobile banking (39 percent) compared with the underbanked (55 percent) and also much less likely to utilize mobile payments (20 percent among the fully banked and 34 percent among the underbanked).

Table 5.

USE OF MOBILE FINANCIAL SERVICES BY THE UNBANKED, UNDERBANKED, AND FULLY BANKED <sup>73</sup>					
	Phone Ownership			Mobile Phone Owners	
Category	Smartphone	Feature Phone*	No Phone	Mobile Banking	Mobile Payments
Fully Banked	70%	20%	10%	39%	20%
Underbanked	70%	17%	13%	55%	34%
Unbanked	40%	28%	32%	NA**	NA**
*A cell phone that is not a smartphone.					
**Among those with a bank account regardless of whether they own a mobile phone and/or have internet access.					

Using similar but not identical demographic breakdowns as that employed in the Pew study, the Federal Reserve surveyed smartphone users about their mobile banking use in the prior 12 months (Table 6). The youngest age groups, consumers of color (Black and Hispanic), and those with the lowest incomes had the highest shares of those utilizing mobile banking services. Keep in mind, however, that these statistics only reflect usage among mobile phone owners and that these demographic groups were also the least likely to own smartphones.

A similar but slightly different pattern of disparities emerges when examining utilization of mobile payments among smartphone users (Table 7). Here, we still see higher than average usage rates among consumers of color and low-income adults, but it is a slightly older age group showing the highest utilization rates (those aged 30 to 44). Overall, a smaller share of Americans utilize mobile payments than mobile banking. And for both mobile payments and mobile banking, an equal share of men and women take advantage of these digital services, again indicating the lack of a gender gap.

<sup>72</sup> Board of Governors of the Federal Reserve System. "Consumers and Mobile Financial Services 2016." March 2016. Accessed online: <https://www.federalreserve.gov/econresdata/consumers-and-mobile-financial-services-report-201603.pdf>

<sup>73</sup> Ibid. Box 2. "Banking Status and the Use of Mobile Banking and Payments - continued." Figure A. Phone ownership by banking status and Figure B. Mobile banking and payments use by banking status. Page 11.



Table 6.

USE OF MOBILE BANKING IN THE PAST 12 MONTHS AMONG SMARTPHONE USERS <sup>74</sup>			
Category	No	Yes	Number of Respondents
# Respondents	843	775	1622
<b>Age</b>			
18-29	30%	70%	240
30-44	36%	63%	392
45-59	57%	43%	512
60+	70%	29%	478
<b>Race/Ethnicity</b>			
White, Non-Hispanic	51%	48%	1218
Black, Non-Hispanic	42%	58%	122
Other, Non-Hispanic	41%	59%	72
Hispanic	34%	66%	168
2+ Races, Non-Hispanic	52%	49%	42
<b>Gender</b>			
Female	46%	53%	801
Male	47%	53%	821
<b>Education</b>			
Less than high school	45%	51%	49
High School	54%	46%	375
Some College	43%	57%	518
Bachelor's Degree or Higher	45%	55%	680
<b>Income Group</b>			
Less than \$25,000	35%	62%	104
\$25,000-\$39,999	49%	51%	234
\$40,000-\$74,999	54%	46%	252
\$75,000-\$99,999	45%	55%	474
Greater than \$100,000	46%	54%	558

<sup>74</sup> Board of Governors of the Federal Reserve System. "Consumers and Mobile Financial Services 2016." March 2016. Table C78.a. Cross-tabulations for consumers' use of mobile banking by age, race, gender, education, and income: Smartphone users. Page 76.

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**Table 7.**

<b>USE OF MOBILE PAYMENTS IN THE PAST 12 MONTHS AMONG SMARTPHONE USERS<sup>75</sup></b>			
<b>Category</b>	<b>No</b>	<b>Yes</b>	<b>Number of Respondents</b>
# Respondents	1268	406	1680
<b>Age</b>			
18-29	70%	32%	263
30-44	63%	36%	414
45-59	72%	23%	523
60+	83%	17%	480
<b>Race/Ethnicity</b>			
White, Non-Hispanic	77%	23%	1,250
Black, Non-Hispanic	63%	37%	131
Other, Non-Hispanic	56%	44%	74
Hispanic	65%	34%	179
2+ Races, Non-Hispanic	66%	34%	46
<b>Gender</b>			
Female	70%	29%	831
Male	73%	27%	849
<b>Education</b>			
Less than High School	70%	30%	63
High School	74%	26%	398
Some College	72%	28%	532
Bachelor's Degree or Higher	69%	30%	687
<b>Income Group</b>			
Less than \$25,000	59%	41%	124
\$25,000-\$39,999	71%	29%	250
\$40,000-\$74,999	80%	19%	263
\$75,000-\$99,999	72%	27%	477
Greater than \$100,000	71%	29%	566

<sup>75</sup> Board of Governors of the Federal Reserve System. "Consumers and Mobile Financial Services 2016." March 2016. Table C78.b. Cross-tabulations for consumers' use of mobile payments by age, race, gender, education, and income: Smartphone users. Page 77.



## E. The Potential Advantages of Mobile Financial Services for the Underserved

In the previous section, we discussed research showing that while ownership of mobile smartphones is expanding, gaps remain in access to smartphones among some demographic groups that are also more likely to be underserved by mainstream banking services (including those in rural areas, those with lower levels of education, those with lower incomes and, to a lesser extent, Blacks and Hispanics). At the same time, among smartphone owners, underserved populations (including consumers of color, young consumers, and LMI consumers) were the most likely to utilize mobile banking services. Thus, there is an opportunity to connect underserved borrowers to better services via mobile financial services (MFS).

What advantages might these consumers be finding in utilizing mobile financial services? An FDIC report on the financial inclusion potential of mobile financial services presents a useful framework for thinking about the benefits of various features of mobile banking and how these benefits align with the consumer needs referenced earlier – control, convenience, affordability, security, access to money, and long-term financial management (Table 8).

Each of the five features listed – **checking balances and transactions, alerts, bill pay, peer-to-peer transfers, and mobile deposits (also known as mobile remote deposit capture, or mRDC)** – is associated with multiple benefits. Furthermore, each of these features brings additional control and convenience for consumers.

## THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS

Table 8.

WAYS THAT MOBILE FINANCIAL SERVICES CAN BENEFIT CONSUMERS <sup>76</sup>		
MFS Feature	Benefits	Consumer Needs Addressed
<b>Checking Balance and Transaction History</b>	<ul style="list-style-type: none"> <li>• Provides access to account information anytime and anywhere</li> <li>• Saves time/trips to providers</li> <li>• Helps budget</li> <li>• Helps inform on-the-spot spending decisions</li> </ul>	<ul style="list-style-type: none"> <li>• Control</li> <li>• Convenience</li> <li>• Long-Term Financial Management</li> </ul>
<b>Alerts</b>	<ul style="list-style-type: none"> <li>• Provides access to account transaction and balance information</li> <li>• Helps consumers avoid fees</li> <li>• Helps monitor accounts for fraud</li> </ul>	<ul style="list-style-type: none"> <li>• Control</li> <li>• Convenience</li> <li>• Affordability</li> <li>• Security</li> </ul>
<b>Bill Pay</b>	<ul style="list-style-type: none"> <li>• Ensures timely payment</li> <li>• Save money over other methods that carry varying convenience fees</li> <li>• Saves time/trips to providers</li> <li>• Provides ability to pay bills anytime and anywhere</li> </ul>	<ul style="list-style-type: none"> <li>• Control</li> <li>• Convenience</li> <li>• Affordability</li> </ul>
<b>Peer-to-Peer Transfers</b>	<ul style="list-style-type: none"> <li>• Enables immediate settling of personal debts</li> <li>• Faster than other methods</li> <li>• Saves time/trips to providers</li> </ul>	<ul style="list-style-type: none"> <li>• Control</li> <li>• Convenience</li> </ul>
<b>Mobile Remote Deposit Capture (mRDC)</b>	<ul style="list-style-type: none"> <li>• Helps deposit money faster</li> <li>• Saves time/trips to providers</li> </ul>	<ul style="list-style-type: none"> <li>• Control</li> <li>• Convenience</li> <li>• Access to Money</li> </ul>

<sup>76</sup> Burhouse, Susan. Matthew Homer, Yasmin Osaki, and Michael Bachman. "Assessing the Economic Inclusion Potential of Mobile Financial Services." FDIC. P. 20. June 30, 2014. Available online: [https://www.fdic.gov/consumers/community/mobile/mfs\\_qualitative\\_research\\_report.pdf](https://www.fdic.gov/consumers/community/mobile/mfs_qualitative_research_report.pdf)

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## PRICING

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This report features products that are free or low-cost, since these have the greatest applicability for expanding financial inclusion. However, it can be difficult for providers to offer fintech products without charging a fee. Like anyone else who must pay their bills, fintech providers must decide on a business model that works for both their bottom line and for their customers. In general, that means choosing between one or a combination of four options: 1) charging a fee for a subscription or based on use; 2) allowing paid advertising visible to users; 3) referring users to a select group of related products and getting paid for those referrals; or 4) selling customer data to third parties.

Each of these four options has pros and cons from the perspective of financial inclusion and consumer protection. The most transparent option is probably charging a fee, assuming the fee is straightforward and doesn't come with hidden charges. While a fee may exclude those who don't want or are unable to pay it, it allows consumers to decide whether the price is worth the service or to look for another option.

Selling paid advertising is also relatively straightforward and gives consumers the choice of going elsewhere if the advertising feels intrusive or offensive.

The third option of referring users to the purveyors of other products is a bit more complex. On the one hand, users don't have to use any of the products offered and can still access the original fintech product or service for free (and if they trust the fintech provider, they may welcome recommendations for other products since it saves them time having to vet a complex array of products). On the other hand, users may question whether the referrals are the best available or whether they are simply the products that the sponsor has a commercial relationship with.

The last option - selling customer data to third parties - can be problematic because it's the most difficult for consumers to identify and understand. Consumers sign away their personal data all the time, but that doesn't mean they always understand when they're doing it or how their data will be used. This is an area where greater attention to clear and prominent disclosure language would be extremely helpful and where the Consumer Finance Protection Bureau is working with both innovators and consumer advocates to make improvements. In each of these areas, consumer protections are needed to ensure that individuals are not burdened by unfair fees or referred to harmful products under false pretenses.

# THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS

## EXAMPLES OF FINTECH INNOVATIONS

Taking the FDIC framework a step further, in Table 9 we list a range of potential fintech benefits and then associate each one with a number of currently available fintech products and services. For example, EARN Starter Savings expands access to automated and matched savings accounts, while BEE increases access to high quality and affordable retail consumer financial services. Multiple fintech products allow consumers to increase control over their finances through smoothing out income and expenses (Digit, Even, Smooth) while others provide a payday advance in order to avoid bouncing checks (Dave) or allow budgeting and goal setting (MINT). Metromile allows consumers to purchase auto insurance by the mile, a potentially significant cost-savings for those who drive less than average but still want to have a car. This is by no means an exhaustive list (see pages 50-59 for more examples of innovative fintech products and services), but it provides a sense of how fintech products are addressing the needs of the underserved.

Table 9.

EXAMPLES OF FINTECH INNOVATIONS THAT CAN PROMOTE FINANCIAL INCLUSION		
Potential Benefit	Description	Fintech Examples
Expand Access	Making products and services available to consumers who are underserved, locked out of the banking system, or have unique or special needs	<b>EARN Savings:</b> automated matched savings accounts for LMI consumers
		<b>Aspiration</b> – provides high-quality and affordable banking and investing services
		<b>Prism Pay Bills</b> – allows the user to link all bills and then pay them from one app, without having to log into multiple sites
		<b>Amazon Cash</b> – allows consumers to load cash into their Amazon account via participating retail partners and then shop Amazon online
		<b>WiseBanyan</b> – makes free financial advice widely available
Improve Consumer Control	Empowering consumers to make day-to-day decisions or adopt spending and savings habits that are more consistent with their long-term aspirations	<b>Clarity Money</b> – automated savings deposits with features to find better credit cards, eliminate subscriptions, and reduce bills
		<b>Dave</b> – allows consumers to track their account balances and to request a payday advance to avoid NSF fees when unexpected expenses arise
		<b>Digit</b> – analyzes consumer cash flow and sets small amounts of money aside to meet savings goals
		<b>Even</b> – smooths out income over the month to avoid fees and financial stress
		<b>Level</b> – smooths out fluctuations in income and spending and gives consumers updates on suggested levels of available funds to use
		<b>Mint</b> – budgeting, goal setting, and money management

Table 9 Continued.

EXAMPLES OF FINTECH INNOVATIONS THAT CAN PROMOTE FINANCIAL INCLUSION		
Potential Benefit	Description	Fintech Examples
Reduce Prices	Driving down costs through increased competition or adoption of technologies that reduce operating costs	<b>Metromile</b> – allows consumers to purchase car insurance by the mile, saving low mileage drivers insurance premium costs
		<b>WorldRemit</b> – provides a swift way to transfer money across 125 countries for a low transaction fee
		<b>Betterment</b> – retirement portfolio advising at a lower price than typical financial advising services
Increase Features and Functionality	Adding or improving functionality so that consumers can benefit from new financial services that work better, are easier or quicker to use, or are more widely available	<b>FreshEBT</b> – allows SNAP recipients to monitor their card balances and to find community food and nutrition programs
		<b>Nova</b> – provides for credit reporting across borders
		<b>Venmo</b> – allows person to person (P2P) money transfers via mobile phone
		<b>Zelle</b> – allows person to person (P2P) money transfers between accounts at participating banks
		<b>Token Transit</b> – easy way to pay for public transportation with a mobile app
Enhance Safety and Security of Products and Services	Includes better defenses against data breaches, mechanisms to avoid or reduce errors, and more efficient correction of mistakes	<b>ECreditHero</b> – free help for consumers to correct credit report errors
		<b>EverSafe</b> – monitors seniors’ accounts, credit cards and reports to detect fraud and protect against identity theft
Promote Transparency	Improve transparency and consumer understanding to help consumers choose the best products and services for themselves and use them	<b>Credit Karma</b> – free access to credit reports and scores
		<b>Ready for Zero</b> – assists users to pay down debt using a well-defined but flexible plan

# THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS

## F. Barriers Impacting the Adoption of Fintech

Though research highlights factors that encourage take-up and engagement with fintech products, some barriers to adoption persist. For example, many consumers are comfortable with their current banking habits and don't perceive enough advantages of digital financial services to add or switch to them. According to a recent report by the Federal Reserve, nearly 90 percent of consumers that did not utilize mobile banking services stated that their banking needs were already being met without the use of mobile banking.<sup>77</sup> Nearly 80 percent indicated that they simply did not see any reason to use mobile banking.<sup>78</sup> Similarly, 70 percent of individuals with no broadband access express no interest in having it in the future.<sup>79</sup> Thus, some consumers remain uninterested in fintech offerings.

For some, the increasingly diverse and complex landscape of financial products can leave them feeling paralyzed and overwhelmed by the breadth of tools available. This may be particularly pronounced when tools are promoted through a source they do not know or trust. And while distrust of digital and mobile delivery channels is fading, consumers' uncertainties related to data security continues to negatively impact the adoption of some fintech and mobile banking products. Data from the Federal Reserve shows that just over 40 percent of consumers report that they don't trust technology, and more than 70 percent of consumers cited security as a reason why they did not use mobile banking services specifically.<sup>80</sup>

A lack of familiarity with or difficulty using technology creates a significant barrier that is not easily overcome. Approximately one out of five respondents to the Federal Reserve survey felt that it was too difficult to use mobile banking. In response to a question about the use of mobile payments, more than one-third said that mobile payments were too difficult or time consuming to set up. It is not clear, however, if certain elements of these tools created the most difficulty or if consumers felt an overall discomfort.

One possible factor limiting adoption of a variety of new digital options is the lack of a guided onboarding process to address consumer uncertainty at any point in the enrollment process. In its work with Alliant Credit Union, based in Chicago but providing banking services nationally, consulting partner Ideas42 explored why more credit union customers were not taking advantage of the convenience of mobile check deposits.<sup>81</sup>

Going directly to the credit unions members, Ideas42 identified the most significant barriers to mobile deposit adoption – the misperception that the process would be a hassle, combined with preference for the way they had always done things. Since check deposits were infrequent, avoiding a trip to the bank by using mobile deposit was not a big enough advantage to get customers to change their habits. But they also found that if customers tried mobile check deposit once and found out how easy and secure it was, then they used it repeatedly. As Ideas42 explained, “We only need to get them to overcome their initial hesitancy to try it, just once!”

GUIDED ONBOARDING AND FOLLOW-UP FROM A TRUSTED SOURCE CAN ASSIST WARY CUSTOMERS TO TRY INNOVATIVE DIGITAL OPTIONS SUCH AS MOBILE CHECK DEPOSITS. ONE GOOD EXPERIENCE IS OFTEN ALL IT TAKES.

To assist the credit union members to make better use of the mobile check deposit option – which represented a potential savings to the credit union in reduced teller time and paper check processing – Ideas42 collaborated with the credit union to design a mailer with easy step-by-step instructions and a \$5 check as an incentive that also gave them an immediate check with which to practice. In describing the impact of the mailer and check sent to 3,000 randomly selected credit union members who had exhibited little or no use of mobile check deposit, Ideas42 wrote:

<sup>77</sup> Board of Governors of the Federal Reserve System. “Consumers and Mobile Financial Services 2016.” March 2016. Table C78.b. Cross-tabulations for consumers’ use of mobile payments by age, race, gender, education, and income: Smartphone users. Page 77.

<sup>78</sup> Ibid.

<sup>79</sup> Pew Research Center. “Internet/Broadband Fact Sheet.” January 12, 2017. Accessed online: <http://www.pewinternet.org/fact-sheet/internet-broadband/>

<sup>80</sup> Board of Governors of the Federal Reserve System. “Consumers and Mobile Financial Services 2016.” March 2016. Table C78.b. Cross-tabulations for consumers’ use of mobile payments by age, race, gender, education, and income: Smartphone users. Page 77.

<sup>81</sup> Davis, Katy. Piyush Tantia. “A Behavioral Perspective on Digital Engagement.” Ideas42. July 13, 2017.



“Not only did this mailer double the rate of adoption for mobile deposits, but the total number of checks members deposited via mobile increased by 40 percent. This change was driven both by a short-term excitement effect over mobile deposits (“look at this cool new technology”) and a long-term adoption effect (“this way of depositing checks is way better”)... Members only needed a small nudge to try the technology, and sustained use followed suit.”

Some barriers to fintech, and tech in general, disproportionately impact specific segments of the population. As we discuss earlier in this paper, access to high speed broadband internet services home is less prevalent among certain sub-populations including individuals living in rural areas, those over 65 years of age, and those making less than \$30,000 a year. And while smartphone ownership is at an all-time high, even among LMI households, limited data plans and storage capacity on cell phones and mobile devices prevent some consumers from being able to take full advantage of fintech products and tools.<sup>82</sup> For a more detailed understanding of why some consumers do not use mobile banking and mobile payments, we examine evidence from a Federal Reserve survey administered in 2016 to non-users (Tables 10 and 11).<sup>83</sup>

**Table 10.**

<b>“PLEASE TELL US IF EACH OF THE REASONS BELOW ARE WHY YOU DO NOT USE MOBILE BANKING:”</b>	
<b>Response</b>	<b>Percent, Except as Noted</b>
Refused/No to All	3%
I’m concerned about the security of mobile banking	73%
My banking needs are being met without mobile banking	88%
I don’t see any reason to use mobile banking	78%
The mobile phone screen is too small	43%
I don’t have a smartphone	27%
My bank charges a fee for using	6%
I don’t do the banking in my	15%
I don’t trust the technology	40%
It’s too difficult to use mobile banking	18%
Number of respondents	819

<sup>82</sup> Pew Research Center. “Mobile Fact Sheet.” January 12, 2017. Accessed online: <http://www.pewinternet.org/fact-sheet/mobile/>

<sup>83</sup> Board of Governors of the Federal Reserve System. “Consumers and Mobile Financial Services 2016.” March 2016. Tables C43 & C46.

**THE POTENTIAL FOR CONSUMER-FACING DIGITAL TECHNOLOGY TO EXPAND FINANCIAL INCLUSION AND CAPABILITY FOR UNDERSERVED CONSUMERS**

**Table 11.**

<b>“PLEASE TELL US IF EACH OF THE REASONS BELOW ARE WHY YOU DO NOT USE MOBILE PAYMENTS:”</b>	
<b>Response</b>	<b>Percent, Except as Noted</b>
Refused/No to All	6%
I’m concerned about the security of mobile banking	67%
My banking needs are being met without mobile banking	80%
I don’t see any reason to use mobile banking	65%
The mobile phone screen is too small	22%
I don’t have a smartphone	36%
My bank charges a fee for using	48%
I don’t do the banking in my	34%
I don’t trust the technology	25%
It’s too difficult to use mobile banking	36%
Number of respondents	1,802

**PEOPLE WITH DISABILITIES**

Some consumer groups, such as people with disabilities, have unique challenges as they adopt new technologies. For instance, carrying out certain tasks and activities on a mobile device, such as completing a form or having to type in information, can be problematic using the small screen and keyboard on mobile devices and cell phones. This may pose a particular challenge for people with certain disabilities, such as visual impairments. According to recent data from the FDIC, close to half (46 percent) of households headed by a person with a disability are un- or underbanked.<sup>84</sup> This presents an opportunity for fintech to help address the specific and unique financial needs of this community.

Currently, however, many fintech products are not adequately designed for people with disabilities, and research shows that the adoption of technology in general is lower among those with disabilities.

Recent research from the Pew Research Center has highlighted the disparate adoption rates of technology between those with and without disabilities (Table 12). Disabled Americans are less likely to own technology devices such as computers, smartphones, and tablets.<sup>85</sup> People with disabilities are also generally less likely to use the internet compared to those without disabilities and they express lower levels of confidence in using the internet and other communication devices compared to non-disabled individuals.<sup>86</sup>

Table 12.

REGARDLESS OF AGE, DISABLED AMERICANS ARE ADOPTING TECH AT LOWER RATES						
	Age 65+			Ages 18-64		
Category	Any Disability	No Disability	Difference	Any Disability	No Disability	Difference
Desktop/Laptop Computer	50%	66%	-16%	67%	84%	-17%
Smartphone	32%	45%	-13%	70%	87%	-17%
Home Broadband	36%	57%	-21%	66%	80%	-14%
Tablet	21%	36%	-15%	44%	57%	-13%

<sup>84</sup> Federal Deposit Insurance Corporation. National Survey of Unbanked and Underbanked Households 2015." FDIC. October 20, 2016. Accessed online: <https://www.fdic.gov/householdsurvey/2015/2015report.pdf>

<sup>85</sup> Anderson, Monica., and Andrew Perrin. "Disabled Americans are less likely to use technology." Pew Research Fact Sheet. April 7, 2017. Accessed online: <http://www.pewresearch.org/fact-tank/2017/04/07/disabled-americans-are-less-likely-to-use-technology/>

<sup>86</sup> Ibid.

# FIVE KEY INVESTMENTS

Needed to Realize the Potential of Digital Financial Services to Increase Financial Inclusion

THE FIVE KEY INVESTMENTS that need to be made in order to realize the potential that fintech represents are in the areas of research, non-profit capacity, access to broadband and mobile technology, regulation, and the security and modernization of the banking system. With a special focus on fintech innovation within the nonprofit sector, this section highlights examples of successful development within the field.

## 1. Expanded Research and Investment on Fintech for the Underserved

While investment in fintech has skyrocketed over the past five years, a greater share of that investment must be directed towards efforts to ensure that the needs of underserved consumers are addressed as part of the research and design of new financial products and services. This is particularly true as incumbent financial institutions are expanding their digital financial services offerings but may not be at the point where they are benefiting from their cost-savings potential yet. For example, in its report on the economic inclusion potential of mobile financial services (MFS), the FDIC points out that, currently, investments in MFS are primarily additive in nature, meaning that consumers are still heavy users of other access channels such as visits to bank branch and both online and telephone banking.<sup>87</sup> Thus, rather than saving financial institutions money in the short term, the addition of MFS is actually increasing their costs and they are challenged to find ways to cover them. The FDIC goes on to say that:

“In addition, as a new delivery channel, MFS is introducing new types of risk and uncertainties into the banking business. In light of investment costs and lack of experience with these services, some banks have focused their initial efforts on delivering MFS to their more established, profitable and less risky customers. Therefore, current banking business models may not consider the costs and benefits of servicing underserved segments, making early MFS offerings impractical for the underserved (e.g. restricting the use of mobile banking to online banking customers).”<sup>88</sup>

Recognizing the need to catalyze and support fintech innovators that cater to underserved consumers, several organizations have created initiatives that have already broken important ground. Next, we profile three of them: the Financial Solutions Lab sponsored by the Center for Financial Services Innovation (CFSI) and JPMorgan Chase & Co., the Common Cents Lab at Duke University, and Project Catalyst at the Consumer Finance Protection Bureau. Each of these efforts leverages significant private, public, and philanthropic dollars and expertise. Their goal is to solve the financial services needs of the underserved in innovative ways with the potential to go to scale.

These efforts also share a commitment to involving consumers in product and services research and marketing, creating out-of-the-box collaborations, addressing the need for relevant policies and regulations including those that address consumer protections, applying cutting edge consumer research such as behavioral economics, and the need to specifically involve innovators and consumers of color, representatives from diverse geographies, and both women and men in product design and implementation. Each also understands the value of multiple levels of testing in order to refine products and services. Given the need for greater understanding of how digital financial services can meet the needs of the underserved at scale, particularly for specific consumer sub-segments, we recommend greater investment in these and similar efforts.

<sup>87</sup> Burhouse, Susan, Matthew Homer, Yasmin Osaki, and Michael Bachman. “Assessing the Economic Inclusion Potential of Mobile Financial Services.” FDIC. P. 20. June 30, 2014. Available online: [https://www.fdic.gov/consumers/community/mobile/mfs\\_qualitative\\_research\\_report.pdf](https://www.fdic.gov/consumers/community/mobile/mfs_qualitative_research_report.pdf)

<sup>88</sup> Ibid. P. 28.



## FIVE KEY INVESTMENTS NEEDED TO REALIZE THE POTENTIAL OF DIGITAL FINANCIAL SERVICES TO INCREASE FINANCIAL INCLUSION

### CUTTING EDGE FINTECH TARGETED TO THE NEEDS OF THE UNDERSERVED

Many recognize the potential of fintech to fill gaps in mainstream financial services and ensure access to affordable, high-quality financial products for the traditionally underserved. Multiple efforts to capitalize on this potential and boost consumer-friendly innovation are underway. They include incubators and accelerators to provide funding, guidance, and key connections for fintech startups with a specific focus on meeting the financial needs of LMI consumers. A number of experimentation labs design, pilot, and refine tools and mechanisms that may positively influence financial behaviors and decisions for LMI consumers. Additionally, a range of stakeholder groups including consumer advocacy organizations, policymakers, and regulators are monitoring the rapidly evolving trends in the fintech marketplace and are working to promote safety and transparency for consumers. Below are examples highlighting these promising efforts to scale fintech solutions that increase financial inclusion for all consumers.



#### FINANCIAL SOLUTIONS LAB

Managed by the Center for Financial Services Innovation (CFSI) with founding partner JPMorgan Chase & Co, the Financial Solutions Lab is a virtual laboratory for fintech companies and other

organizations that utilize technology to improve the financial health of consumers. Combining elements of accelerators and incubators as well as testing and experimentation, the Lab offers participants financial capital to grow their early-stage products, opportunities to test aspects of their products, guidance and support for reaching LMI consumers, and connections to a broad range of advisors and potential partners. A key purpose of the Lab is to help develop and promote fintech products and services that embrace economic inclusion, build trust, promote success, and create opportunity while solving important financial challenges that Americans face. The Lab was launched in 2015, and over a five-year period it will create annual challenges and select the most innovative solutions for the issue areas highlighted. The products and organizations selected each year will create a learning cohort, working together for approximately eight months to grow and deepen their impact for consumers. The first year of the Lab focused on income volatility, the second year focused on weathering financial shocks, and the third year focuses on a diverse set of tools to improve overall financial health. To learn more, go to [finlab.cfsinnovation.com](http://finlab.cfsinnovation.com).



#### COMMON CENTS LAB

Launched in 2016 with funding from the MetLife Foundation, the Common Cents Lab creates and tests behavior-based interventions aimed at improving consumers' financial well-being. They partner with banks, credit unions, fintech companies, and nonprofit organizations to design experiments in order to understand and identify behavior-related financial challenges. They also build and test prototypes for new financial products and tools that can provide solutions to help consumers overcome some of these challenges. To date, the Common Cents

Lab has worked with a combination of nearly 30 fintech companies, non-profit organizations, and credit unions. They have shared their findings through research papers, news articles, and case studies to inform practitioners and enhance financial products and tools for underserved consumers. To learn more, go to [advanced-hindsight.com/commoncents-lab](http://advanced-hindsight.com/commoncents-lab).



#### THE CONSUMER FINANCIAL PROTECTION BUREAU

The Consumer Financial Protection Bureau's (CFPB) Project Catalyst works to encourage safe and consumer-friendly innovation in financial products and services. It was implemented

in 2012 as a way to fulfil the CFPB's directive to ensure transparency, efficiency, and competition in the financial services marketplace. To do this, Project Catalyst acts in three main areas: 1) engaging in research collaborations and pilot projects with startups to test new and innovative tools or ideas; 2) developing policies that support and encourage consumer-friendly innovation; and 3) working with diverse stakeholders to open channels of communication, monitor emerging trends, and identifying potential risks to consumers. Two key accomplishments to date are the development of a Trial Disclosure Waiver Policy and a No-Action Letter Policy. The disclosure waiver allows companies with in-market products to test disclosure improvements to benefit consumers. The No-Action Letter aims to foster consumer-friendly innovation by helping companies manage regulatory requirements as those requirements attempt to keep pace with the quickly evolving product market, while also ensuring that companies include specific consumer safeguards. To learn more, go to [consumerfinance.gov/about-us/project-catalyst](http://consumerfinance.gov/about-us/project-catalyst)

# FIVE KEY INVESTMENTS NEEDED TO REALIZE THE POTENTIAL OF DIGITAL FINANCIAL SERVICES TO INCREASE FINANCIAL INCLUSION

## 2. Build Nonprofit Capacity

Capitalizing on the potential for financial technology to expand financial inclusion requires new investment in and support for nonprofit organizations. This section outlines what is needed, beginning by summarizing the important role nonprofits can and should play in the financial services ecosystem. Then, we present lessons learned from innovative nonprofits that have had success with fintech innovations. This section includes five recommendations for nonprofit organizations themselves and several profiles of nonprofits that are leading the way and connecting fintech with the needs of the underserved.

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### THE ROLE OF NONPROFITS

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The role of nonprofits in connecting consumers with fintech is still emerging. However, it is clear that these organizations have unique strengths and should be key players in the sector, most of all because of their relationships with low- and moderate-income consumers. Nonprofits can play many different roles: they can serve as advisors to fintech entrepreneurs and financial institutions who are building and refining products for the underserved and they can also create new fintech products and services themselves.

According to an FDIC study of banks' efforts to serve the unbanked and underbanked, banks identified their partnerships with community-based nonprofits as a key tool for reaching the underserved.<sup>89</sup> Financial institutions should continue to partner with non-profit intermediaries that can introduce consumers to new opportunities to improve their financial health while avoiding options that may be harmful. As one of its recommendations, the FDIC included the following:

“Community outreach through collaborations with community groups was identified as the most effective strategy for developing relationships with these populations. ...Despite this recognition, only about half of all banks reported using

partnerships with organizations to promote opening checking or savings accounts. These findings suggest that banks may benefit from expanding collaborative efforts to promote access to mainstream deposit accounts.”<sup>90</sup>

As part of an evaluation of the Financial Solutions Lab, fintech innovators reflected on their efforts to design for and market to the underserved.<sup>91</sup> Several fintech startups spoke of their desire to partner with non-profits for three reasons: 1) to reach their target underserved market more quickly and, in the case of nonprofits that work with a large number of clients, to help them to achieve scale; 2) to work with nonprofits that routinely work with underserved consumers to better understand their target market; and 3) to partner with non-profits in order to engage underserved consumers directly at each stage - from initial product design to product rollout to keeping consumers engaged and to later iterations of product refinement. One interview participant mentioned that:

“There's an opportunity for [nonprofits] to engage early on in the product development cycle in a way that they can have an impact on the types of products and services that are being developed.

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<sup>89</sup> FDIC. "2011 Survey of Banks' Efforts to Serve the Unbanked and Underbanked." December 2012. P. 4.

<sup>90</sup> Ibid. p. 7.

<sup>91</sup> Dorrance, Jess and Lucy Gorham. "Evaluation of the Financial Solutions Lab: Fintech Innovation Challenge 2015."



You've got this huge wave of capital and energy and attention being focused in the fintech environment. By engaging with those providers, nonprofits can influence them and really make sure that a lot of those resources are being used to create powerful solutions that really serve the needs of their clientele."<sup>92</sup>

In conversations with a variety of key informants, a consistent theme that emerged was the importance of providing opportunities for underserved consumers to access someone in person. Staff at one nonprofit that works with younger consumers to help them to manage their student loan debt said that when they designed the program, their assumption had been that millennials would prefer online or at least telephone counseling to in-person counseling and were surprised to find that the opposite was true. With so many providers pitching debt counseling services, some with questionable practices, even young consumers preferred to be able to meet with someone face-to-face to reassure themselves that they were not falling prey to a predatory product or service.

Because nonprofits are viewed as having altruistic motives, they generally enjoy a higher level of trust with consumers. Financial institutions and public entities can partner with nonprofits to provide this level of personal interaction, instead of duplicating this service. The higher level of trust enjoyed by the non-profit community partner, then, can reflect back positively on the financial institution. However, many community-based nonprofits are under-resourced both in terms of staff capacity and access to better technology systems for tracking impact.

Nonprofits often provide other services that are ripe for integration with fintech products and services, such as financial coaching, free income tax preparation, affordable housing, and workforce development and training services. When fintech products that can assist consumers to improve their financial health can be

integrated seamlessly into other programs, the likelihood of a more robust impact increases. Nonprofits can also offer users a consistent and easy way to access information about how to use a product and advice about what to do when challenges arise. This function is another benefit for partner fintech providers, whether they are financial institutions or fintech companies.

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## LESSONS LEARNED FROM NONPROFITS INNOVATING WITH FINTECH

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As the role for nonprofits' in fintech develops, those already innovating in this space have begun to share their experiences and the lessons they have learned as well as questions and considerations as the field further evolves. This section includes important considerations for nonprofits to discuss as they integrate fintech into their work and examples of nonprofits that have done so successfully.<sup>93</sup>

### (A) Nonprofits as Fintech Leaders and Innovators

First of all, the same advantages that nonprofits possess in working with the underserved – an understanding of their needs, being a trusted source of information and support, being able to provide services at or below cost – can also give them advantages in designing and offering fintech products and services, either independently or in collaboration with a range of private and public partners.

Rather than waiting on the sidelines for the private market to develop solutions to solve the financial services needs of their constituents, one group of nonprofits has recently collaborated on a new initiative called nLIFT (Nonprofit Leaders in Technology). Working together with the Aspen Institute, the six partners of nLIFT hope to amplify the voices and experiences of nonprofits in expanding financial inclusion through technology.

<sup>92</sup> Key informant interview participant, Joshua Sledge of CFSI, spoke with authors in the spring of 2017.

<sup>93</sup> Sledge, Joshua and Kate Griffin. "Matchmaker, Matchmaker: How FinTechs and Nonprofits Can Swipe Into Great Partnerships." CFSI Blog Post, November 2016. Accessed online: <http://finlab.cfsinnovation.com/insights/11-2016/matchmaker-matchmaker-how-fintechs-and-nonprofits-can-swipe-into-great-partnerships/>

## FIVE KEY INVESTMENTS NEEDED TO REALIZE THE POTENTIAL OF DIGITAL FINANCIAL SERVICES TO INCREASE FINANCIAL INCLUSION

### NLIFT: BRINGING THE STRENGTHS OF THE NONPROFIT SECTOR TO BEAR IN THE DESIGN AND DISTRIBUTION OF FINANCIAL TECHNOLOGY

Building fintech products that truly meet the needs of LMI households and the underserved requires an accurate understanding of the day-to-day financial realities affecting these consumers. How do they make financial decisions, where are their greatest financial “pain points,” what factors impact their access to and use of existing financial services, and what are their needs, desires, and preferences when it comes to financial products? It also requires communication. Consumers need to know that fintech products exist, have adequate access to the technology necessary to utilize them, have the knowledge needed to take full advantage of them, and have trust in the fintech providers creating and offering these tools.

Nonprofit organizations are uniquely positioned to play a role in achieving the goal of increased financial access through fintech. They may do so not only because of their ability to provide critical information about LMI consumers to fintech designers, but also by becoming the designers themselves of fintech tools that effectively serve the financial needs of their clients and partners. Nonprofits are also able to address some of the key barriers impacting consumer take-up of fintech products due to their status as a trusted provider to LMI consumers.

Recognizing this meaningful opportunity, six leaders from the nonprofit sector came together to create nonprofit Leaders in Financial Technology (nLIFT) to support one another in the goal of increasing financial inclusion through the use of technology. The organizations include:

The logo for Commonwealth, with the word "commonwealth" in a lowercase, sans-serif font. "common" is in blue and "wealth" is in yellow.

COMMONWEALTH strengthens the financial opportunity and security of financially vulnerable people by discovering ideas, piloting solutions, and driving innovations to scale.



As the nation's leading microsavings provider, **EARN** designs and launches online savings tools that create financial stability for America's most economically vulnerable populations.

The logo for the National Federation of Community Development Credit Unions, featuring a stylized arch made of blue and green segments above the word "Federation" in a bold, blue, sans-serif font.

Credit Unions United to Serve the Underserved

The mission of the **NATIONAL FEDERATION OF COMMUNITY DEVELOPMENT CREDIT UNIONS** is to help low- and moderate-income people and communities achieve financial independence through credit unions.



**THE FINANCIAL CLINIC** builds working poor families' and individuals' financial security by addressing their immediate financial challenges and helping them set long-term goals to achieve financial mobility.



**MISSION ASSET FUND** is a nonprofit organization on a mission to create a fair financial marketplace for hardworking families through savings and credit building opportunities.



**MY PATH** designs, tests and scales models that support cities, youth employment programs and financial institutions to build economic pathways for youth.



Each of the nLIFT members is building a product or platform that can be used by consumers directly or in partnership with other organizations. For example, EARN has created an online and mobile Starter Savings Program that is offered directly through the EARN website, but the program can also be offered in partnership with other organizations through a customized webpage.

While each organization remains faithful to their individual mission, by working together, nLIFT members are also creating a stronger shared voice around their collective goal. nLIFT is committed to making the highest and best use of both private and philanthropic capital, as well as leveraging the potential of cross-sector partnerships to maximize impact. According to nLIFT “As tax-exempt organizations, we have the privilege and responsibility to prioritize social return above—and often even at the expense of—financial return. This special role demands we cultivate special expertise, public awareness, strategies, and peer support.”

**“AS TAX-EXEMPT ORGANIZATIONS, WE HAVE THE PRIVILEGE AND RESPONSIBILITY TO PRIORITIZE SOCIAL RETURN ABOVE — AND OFTEN EVEN AT THE EXPENSE OF — FINANCIAL RETURN. THIS SPECIAL ROLE DEMANDS THAT WE CULTIVATE SPECIAL EXPERTISE, PUBLIC AWARENESS STRATEGIES, AND PEER SUPPORT.”**

## FIVE KEY INVESTMENTS NEEDED TO REALIZE THE POTENTIAL OF DIGITAL FINANCIAL SERVICES TO INCREASE FINANCIAL INCLUSION

### B Build, Buy, or Partner

Second, nonprofits considering the incorporation of financial technology into their services need to determine the following: 1) do they **buy** an existing product or tool from a vendor that they can use to serve their own or their clients' needs; 2) do they **partner** with a fintech company, a financial institution, or another third party collaborator that offers fintech products and services (including referring clients to existing fintech products and services); or 3) do they **build** their own tool. Each of these paths requires careful deliberation regarding why, how, and if fintech is the most effective mechanism for achieving organization goals and serving clients.

Nonprofits beginning to explore these options must answer an array of fundamental questions as follows:

- > What unmet need is the nonprofit addressing? Is the nonprofit the best organization to address it?
- > Are fintech tools an answer to this need? If yes, how would a fintech product or tool enhance the way the organization services its clients?
- > How does the integration of fintech into current service delivery fit with the organization's overall mission? How will it fit, logistically, into current operations?
- > Does the organization have the staff capacity and other resources needed to add fintech into its services, particularly if it builds a product or tool itself? What additional staff training might be needed? Where can it find design and other expertise to build a product or tool?
- > What would the design and ongoing maintenance costs be? Would the product or tool be offered to other organizations? How would the ongoing technical assistance costs of offering services to outside organizations be sustained?
- > What is the ongoing business model for sustaining the initiative? What are the assumptions about the role of private, public, and philanthropic dollars, as well as the potential for both organizational and client users to contribute something to ongoing costs?

### C Vetting Fintech Products and Partners

Third, vetting is a critical issue if a nonprofit is seeking to partner with a fintech company or refer their clients to existing products. Nonprofits must determine which of the many products on the market can offer their clients safe and affordable tools to help them meet their financial needs. Given the high speed at which new fintech products are being introduced, it becomes difficult to keep up with what each tool does and how any one may be similar or different from another. Vetting a product requires much more in terms of knowing and understanding how the company operates, how it generates a profit (for example, do customers pay to use the product), whether the terms of use are clear and transparent, how they protect customer data, if they are FDIC insured (when applicable), and importantly, if the company will even remain in business. Unfortunately, it is not uncommon for early-stage startups to fail, and being able to vet a product becomes essential for a nonprofit working to effectively serve their clients and maintain a trusting relationship with them.

For Catalyst Miami (highlighted in more depth on pages 54 and 55) vetting financial apps prior to recommending them to their financial coaching clients remains one of their highest priorities. Their process includes having financial coaches utilize each product themselves and become familiar with the functionality, the ease of use, the benefits and limitations in order to determine which ones might best fit their clients' financial needs. In some cases, coaches have talked directly with fintech companies to ask questions about their business model or about the product prior to recommending something to a client. As Catalyst has discovered, however, the vetting process is ongoing. Coaches must continue to monitor financial apps since new ones are frequently introduced, and the features of existing ones may change over time. They must be able to stay abreast of a quickly changing market and to adjust their recommendations when necessary.

In addition to nonprofits and consumers vetting products through their own processes, some nonprofit leaders, funders, and those working in the fintech sector have suggested the possibility of a type of

central clearinghouse where both nonprofits and fintech companies can share essential information and create opportunities for collaboration. There is a need for a systematic way to vet fintech providers and products and build a bridge between nonprofits and fintech companies. As a step in this direction, the Financial Solutions Lab has been working to make key connections between fintech innovators targeting LMI consumers and the nonprofits serving that population. Furthermore, they include nonprofit innovators in the FinLab that are developing and scaling their own fintech products.

#### **D** Integrating Technology into Existing Services

Fourth, the integration of technology into service delivery can provide a way to enhance how a nonprofit serves its clients. Through automation and streamlining, fintech can offer an opportunity to serve more clients more efficiently and cost effectively. Technology, however, should not act as a replacement for existing services. Research continues to point out that consumers need and want opportunities to interact with people, not machines, particularly when questions arise or when they encounter a problem that requires an individualized response or solution.<sup>94</sup> One-on-one interactions are also essential to building and maintaining relationships with clients and customers in ways that cannot be easily replaced or replicated through technology.

Here, we provide three examples of nonprofits integrating fintech into their existing work. Then we provide more in-depth profiles of innovations in the field: Catalyst Miami, EARN, Prize Savings, and a collaboration between Neighborhood Trust Financial Partners and the Federation called the Pathways Initiative.

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### EXAMPLES FROM THE FIELD

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When the **National Foundation for Credit Counseling** began its initiative to provide counseling on student loan debt, it anticipated that its young and largely tech-savvy clientele would prefer online tools or telephone counseling. Instead, they found that even

millennials preferred to come to the office and meet with someone in person before they divulged the details of their financial lives.<sup>95</sup> One-on-one interactions are also essential to building and maintaining relationships with clients and customers in ways that cannot be easily replaced or replicated through technology.

**Catalyst Miami** identified an opportunity to enhance their coaching services with the inclusion of financial apps. These apps offered the coaches a new way to engage with their clients and to keep them moving forward on the path towards their financial goals they set for themselves outside of their standard coaching sessions. In many cases, the apps also created a new data source to track a clients' progress on their goals in ways that had not been previously accessible. All of this augments, but does not replace the personal interaction that is the basis of an effective coaching relationship.

For nonprofits building their own tool, the integration of technology can allow opportunities to learn from the fintech/startup sector about how they develop and deliver their programs and services. For example, **Neighborhood Trust Financial Partners (NTFP)**, a 2015 Financial Solutions Lab winner with their fintech product called PayGoal, embraced many elements of the Lean Startup model. Their product development process was guided by three main principles. First, build a prototype product experience intended to test a small number of hypotheses regarding user response to the tool. Next, activate the product, onboard users, and measure results. Third, reflect on learnings and move forward with a high degree of confidence to build the next iteration. NTFP's approach blends principles from a variety of prominent product design methodologies, including the "Build - Measure - Learn" loop of the Lean Startup Model and Human-Centered Design.<sup>96</sup> In response to the needs of their customer base and a desire to scale their efforts, NTFP now partners with the fintech company FlexWage. FlexWage offers employers an innovative employee benefit that allows employees to borrow against accrued wages, thus giving them additional liquidity as an alternative to high-priced options such as payday loans.

<sup>94</sup> See, for example, the following research: 1) Marques, Denise., and Stacey Kest. "The FinTech Project Final Report On Evaluation Activities and Findings." University of Miami. January 2017. P. 21.; 2) National Federation of Community Development Credit Unions. "From Distrust to Inclusion: Insights into the Financial Lives of Very Low-Income Consumers." January 2015.

<sup>95</sup> Interview with Ann Estes and Jeffrey Faulkner, National Foundation for Credit Counseling, Washington, D.C.

<sup>96</sup> Ries, Eric. *The Lean Startup: How Today's Entrepreneurs Use Continuous Innovation to Create Radically Successful Businesses*. Crown Publishing Group, 2011.

## FIVE KEY INVESTMENTS NEEDED TO REALIZE THE POTENTIAL OF DIGITAL FINANCIAL SERVICES TO INCREASE FINANCIAL INCLUSION



According to a recent census, the field of financial coaching includes over 450 programs providing coaching services across the U.S.<sup>97</sup> One of these is Catalyst Miami, which offers a range of services, including financial coaching, to improve the financial and physical health of families and communities in Miami-Dade County in Florida. A key part of their mission is to build the financial wellbeing of households and communities by offering services such as free tax preparation, credit building and saving opportunities, and comprehensive financial coaching.

Financial coaching assists individuals to achieve improved financial security and well-being. Although various definitions of financial coaching exist, it is typically understood to incorporate a few key elements. These include identifying a financial goal, developing an action plan to achieve it, and following through on that plan.<sup>98</sup> All of this is done with the assistance of a coach to guide and support each stage of the process. Coaching is distinguished from financial counseling, another approach to enhance financial security, by being primarily client-driven rather than prescriptive, and working towards a goal rather than addressing a more immediate financial crisis.<sup>99</sup>

Over the last decade, financial coaching has evolved from a fledgling approach to a professionalized field.<sup>100</sup> A recent element in this evolution is the inclusion of technology into the delivery of coaching services. There are multiple ways technology can enhance financial coaching – from virtual meetings (through Skype or Google Hangouts, for example) to text messaging used for appointment reminders or informal communication between coach and client to online platforms to deliver coaching content and resources.<sup>101</sup> At Catalyst, coaches have begun to use fintech apps to enhance their coaching sessions and increase engagement with clients as they work towards their financial goals. Catalyst recognized that traditional banks were not necessarily meeting their clients' needs and felt they had an opportunity. Catalyst's Chief Executive Officer, Gretchen Beesing, stated, "...traditional banking does not meet all of the needs of our client base, so here's an opportunity to test new things, see how it can enhance our coaching model. And our coaching team was eager to incorporate fintech apps, they loved it, started playing with the apps right away when they became available, and so we went from there."

Catalyst Miami approaches its work with innovation and experimentation in mind. Additionally, they have an office co-located at Miami-Dade Community College and a large number of their clients are young and tech-savvy. These two pieces together made the incorporation of technology into their services fairly smooth and felt like a logical extension of their mission.

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<sup>97</sup> This number reflects the number of responses to the census. There are likely more organizations offering coaching services that did not participate in the census. Lienhardt, Hallie. Financial Coaching Census 2016. Asset Funders Network and Center for Financial Security. Accessed online: [http://assetfunders.org/ages/pages/AFN\\_Financial\\_Census\\_Brief\\_2016.pdf](http://assetfunders.org/ages/pages/AFN_Financial_Census_Brief_2016.pdf)

<sup>98</sup> Collins, J. Michael, & O'Rourke, Collin. The Application of Coaching Techniques to Financial Issues. *Journal of Financial Therapy*, 3 (2) 3. Accessed online: <https://doi.org/10.4148/jft.v3i2.1659>

<sup>99</sup> Ibid.

<sup>100</sup> The Cities for Financial Empowerment Fund. The Professionalizing Field of Financial Counseling and Coaching: A Journal of Essays from Expert Perspectives in the Field. <http://www.professionalfincounselingjournal.org/assets/cfe-fund-professionalizing-field-of-financial-counseling-and-coaching-journal2.pdf>

<sup>101</sup> Collins, J. Michael, & Lienhardt, Hallie. Using Technology in Financial Coaching. Center for Financial Security. Issue Brief 2014 6.1 Accessed online: [http://fyi.uwex.edu/financialcoaching/files/2014/06/tehnology-in-coaching\\_6\\_20141.pdf](http://fyi.uwex.edu/financialcoaching/files/2014/06/tehnology-in-coaching_6_20141.pdf).

Along the path to integrating fintech tools into their services, Catalyst has discovered some important lessons that include the following:

- > Financial apps are a supplement to enhance coaching. Apps act as a tool for helping clients reach their goals, but the coaching relationship remains central to the experience with clients.
- > Initial vetting of apps is critical. For Catalyst, this means that coaches test out apps to assess functionality, ease of use, versatility, etc. Often, coaches are using the apps themselves well before suggesting them to their clients. In some cases, coaches even reach out to app developers directly to obtain additional information about the app and its viability.
- > Having a model for how and when you introduce an app to clients matters. Building trust and rapport between coach and client is essential, and must happen prior to introducing an app for the client to consider. In talking with a Catalyst coach, he expressed concern about presenting an app too early in a coaching session. He explained:



For me and for our coaches, we tend not to do it [introduce an app] at the beginning of the session, only because that's most of the relationship building. It's that building trust part of it. You're really just hearing people's stories, and active listening, and that's where you build the trust, and you don't want to seem like you're selling something when you're presenting a valuable tool."

- > A guided onboarding with a coach can ease the sign-up process. Coaches typically review and download an app with a client during a coaching session and work with them to complete the sign-up process. This guided onboarding allows clients to ask questions or deal with issues that may have otherwise prevented them from enrolling. Before ending a session, coaches often assign "homework" related to the app, which increases engagement with the app and the coaching sessions more generally.
- > Offering clients too many apps may be counterproductive. Consistent with some behavioral research which suggests that too many choices can overwhelm consumers, coaches typically suggest only a few apps for a client to consider using. Additionally, many of Catalyst's clients have limited storage space on their phones which impacts the number of apps that can be downloaded on their device. Coaches are careful and deliberate in their app suggestions to best match clients' needs while keeping in mind other potential constraints.
- > Coaches must monitor changes in apps to keep clients informed on an ongoing basis. While incorporating existing fintech apps into coaching services can be an inexpensive added value in terms of program costs, coaches must be willing and able to devote time - in addition to their already demanding schedules - to monitoring changes or upgrades to apps in order to keep clients informed. In some cases, changes to an app may require that coaches and clients re-evaluate if the app remains a good fit towards achieving their goals. For example, if an app was offered free-of-charge when a client started using it, but now charges a monthly fee, coaches and clients can work together to determine if the client should continue utilizing the app and what their other options might be.
- > Practitioners must strike a balance between automation and individual in-person interactions. While fintech may provide a mechanism to streamline, or even automate, aspects of financial coaching, clients still rely on direct, in-person interactions with a coach. This is a potential area of future research to determine where and how technology can best enhance coaching services without stripping away the most critical component of the coaching experience.

## FIVE KEY INVESTMENTS NEEDED TO REALIZE THE POTENTIAL OF DIGITAL FINANCIAL SERVICES TO INCREASE FINANCIAL INCLUSION



Savings proving a critical foundation for economic security and prosperity, but nearly half of Americans (46 percent) report that they would have difficulty coming up with \$400 to cover a financial emergency.<sup>102</sup> EARN, a California-based nonprofit, has been working to change that statistic for over fifteen years, by providing opportunities for LMI households to build up small amounts of savings (microsavings) over time in order to bolster in their overall financial health.

EARN is also one of a small number of nonprofit organizations utilizing technology to further their mission, while simultaneously helping to shape the future of the fintech sector. Their Starter Savings Program, which allows users to link their savings account through a mobile-optimized platform and earn rewards for making savings deposits, was created in large part because of their desire to incorporate technology into their service delivery model and to help scale their interventions to increase impact.<sup>103</sup>

Key to EARN's success is the use of client feedback to design their products and tools. EARN listens closely to what their clients say they need and, as a result, clients view them as a trusted provider of those services. This relationship with clients is one of the most powerful ways in which nonprofits can influence the impact that fintech can have on expanding economic opportunity for LMI households.

Other keys to EARN's success are the willingness to experiment and to test new ideas to best meet their clients' needs, and then rigorously track metrics that can guide their future work and product development. In describing their approach, Leigh Phillips, the CEO at EARN, stated, "I think that being able for us to come out and say, first off, nonprofits do technology, we can do technology, and we should do technology because it's 2017 and that's where the world is going. We share our learnings about what works and what doesn't, and encourage others to do the same, to develop a shared voice around consumer advocacy in the financial technology space."

EARN is partnering with a wide variety of organizations to attract new members and is constantly considering new ways to bring them greater value, including resources for those who want to manage their financial lives better but may not be in a position to start saving yet. They feel that one of their greatest successes is that with this new application of technology, they are still attracting their target market of members who are low-income, women, diverse in age, and a majority of whom are people of color. One of their most productive collaborations has been with FreshEBT - an app to help consumers to manage their nutrition assistance (SNAP) benefits - another fintech innovator. The EARN/FreshEBT partnership demonstrates the strength of nonprofit and for-profit fintech startups utilizing each of their strengths towards a common goal.

### (E) Tracking Data and Measuring Impact

Finally, nonprofits must consider how to measure the impact that fintech is having on their clients and their mission. As one interview participant pointed out, "one of the wonderful things about financial technology is just the amount of data and information that's flowing through instantaneously. We don't have to sit around and wait six months to see if something really worked before we can go back and decide to change things."

With this data comes the need to know both what to measure and how to use that information to assess whether goals (both for clients and for the organization more broadly) are met and when or how systems may need to be adjusted based on what is learned. The field would benefit, however, from greater uniformity in how impact is measured and which metrics are utilized, an issue that has been recognized and is being addressed by many key players as the field evolves.

<sup>102</sup> Board of Governors of the Federal Reserve System. "Report on the Economic Well-Being of U.S. Households in 2015." May 2016.

<sup>103</sup> For every \$20 someone saves per month, they earn a \$10 monthly saving bonus, over a period of six months. Users can select a specific savings goal and use the tool to track their progress. Currently, over 5,000 have registered for the savings program and linked their bank account to the app.



Beyond these important considerations for nonprofits, there is a fundamental shift needed in the funding structure of fintech in order to adequately support nonprofits in helping to transform a somewhat disjointed system of separate players into a more collaborative ecosystem that maintains a focus on consumers. For many nonprofit financial services providers, including credit unions, resources to upgrade or replace existing systems are inadequate to fully scale the incorporation of fintech into their services as well as to track impact at optimal levels.

Simply including nonprofits in the field is not enough. Tighter connections and deliberate collaborations between fintech developers, incumbent financial services providers, nonprofit organizations, researchers, consumer advocates, and policymakers are all needed to make this transformation a success. Foundations and private capital investments must lead the way.

## Prize Savings

A creative new initiative by giant retailer Walmart and nonprofit financial innovator Commonwealth takes advantage of two seemingly disparate consumer sentiments – the preference for savings and the attraction of lottery winnings as a wild card means to financial stability. The program, called Prize Savings, utilizes the savings vault on the Walmart MoneyCard. The reloadable MoneyCard doesn't require a linked checking or savings account, making it suitable for the unbanked. For each dollar saved in the

Vault, cardholders receive a chance to win one of 500 monthly prizes – one for \$1,000 and the remaining for \$25 – that are deposited directly onto their card.

Even in relatively small amounts (\$250 to \$749), savings can help households avoid eviction, avoid missing a housing or utility payment, and avoid relying on public benefits when faced with a disruption in income or an unexpected expense.<sup>104</sup> Unfortunately, income disruptions are common – striking roughly 1 in 4 households over a year in one study – and a significant share of households lacks a savings cushion.<sup>105</sup> While the lack of a savings cushion isn't confined to low- and moderate-income households or to the unbanked or underbanked, not having a checking or savings account increases the challenge of developing a savings habit, as does income volatility.

As a result of these challenges, many households feeling that saving is unrealistic. One survey by the Consumer Federation of America showed that for those with less than \$35,000, 40 percent felt the best way to save \$500,000 over a lifetime (think retirement savings) was to win the lottery.<sup>106</sup> And the allure of the lottery is strong – in 2014, Americans spent \$70 billion on lottery tickets despite losing roughly half of each dollar spent.<sup>107</sup>

While the program is relatively new, consumer interest has been strong, with significant increases in vault usage and average savings.<sup>108</sup> And while the program may not be perfect (the MoneyCard comes with fees similar to many prepaid cards, for example), if it can capture even a fraction of the money spent on lottery tickets every year and help households to avoid the large calamities that often originate in the lack of a few hundred dollars in emergency funds, it will be a wild success.

<sup>104</sup> McKernan, Signe-Mary., Caroline Ratcliffe, Breno Braga, and Emma Kalish. "Thriving Residents Thriving Cities: Family Economic Security Matters for Cities." Urban Institute. April 2016. P. 2.

<sup>105</sup> Ibid.

<sup>106</sup> Los Angeles Times. "Many See Lottery as a Better Bet Than Saving and Investing." October 29, 1999. Accessed online: <http://articles.latimes.com/1999/oct/29/business/fi-27451>

<sup>107</sup> Walker, Rob. "How to Trick People Into Saving Money." The Atlantic. May 2017. Accessed online: <https://www.theatlantic.com/magazine/archive/2017/05/how-to-trick-people-into-saving-money/521421/>

<sup>108</sup> Ibid.

**FIVE KEY INVESTMENTS NEEDED TO REALIZE  
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TO INCREASE FINANCIAL INCLUSION**





The Pathways to Financial Empowerment initiative is a software platform and technical assistance program designed to provide credit unions with the technology and training needed to deliver high-quality financial counseling and coaching to their membership. Pathways is a joint initiative of the National Federation of Community Development Credit Unions (Federation) and Neighborhood Trust Financial Partners. The Federation is a Community Development Financial Institution (CDFI) intermediary and trade association with a membership of 200+ credit unions in 46 states that provides technical assistance, advocacy, capacity building, and programmatic support to credit unions committed to low-income communities. Neighborhood Trust provides a wide array of financial empowerment services to New York City residents and has over twenty years of experience providing financial counseling in credit union branches and across other sites and channels throughout New York City.

At the heart of Pathways is a customized cloud-based platform that provides financial counseling and coaching client management and robust outcome measurement features. Ann Solomon, Director of Strategic Initiatives at the Federation says, “Pathways provides credit unions with a new tool to quantify their impact on individuals’ financial well-being in a way they haven’t been able to do before.”

This database offers user-friendly screens that financial counselors use throughout their face-to-face sessions with clients to input data and guide their work. In addition to the data collected from the client throughout the session, the counselor can also order a client’s credit report and automatically integrate data from that report into the client’s record, preventing the counselor from needing to enter data manually. Another helpful tool that Pathways offers is “nudge” text reminders, designed to follow-up with clients about the actions steps that they committed to in previous counseling sessions. These automatically generated reminders provide an extra layer of consistent support and accountability for clients without having to commit any additional staff time. But perhaps the most unique element of the Pathways platform is its ability to integrate credit union account level financial data with the financial counseling session data, allowing for robust data outcome measurements such as product uptake and asset balance, as well as changes in credit score and debt levels to achieve a comprehensive view of the of the client’s financial well-being over time.

These robust data collection and analysis functions provide valuable information for the counselors to share with their clients as well as for the credit union to be able to measure their programmatic outcomes. Five credit unions participated in the Pathways pilot program, launched in October 2015 with seven more joining in in the 2016-2017 program year. Early impact data from the initial cohort have shown promising results. Sixty percent of the nearly 1,000 people served in the first year of the program achieved one or more financial goals and 40 percent took up a new product with their credit union, ranging from savings accounts to auto loans. For clients engaged in counseling for at least four to six months, 29 percent increased their savings and 61 percent improved their credit score, including 13 percent who improved their credit category. As the Pathways program grows, the Federation and Neighborhood Trust continue to measure and illustrate that credit union counseling, integrated with appropriate financial products, has a positive impact on individuals’ financial well-being.

## FIVE KEY INVESTMENTS NEEDED TO REALIZE THE POTENTIAL OF DIGITAL FINANCIAL SERVICES TO INCREASE FINANCIAL INCLUSION

### 3. Increase Access to Broadband and Mobile Technology

In examining the profiles of the unbanked and underbanked, we find that the same demographic groups with the least access to broadband technology and smartphones (those who are low-income, rural, less-educated, and Black or Hispanic) also have higher rates of being underbanked and unbanked. Additionally, in the case of mobile technology, they are more likely to use mobile banking if they own a smartphone. Thus, in order to take advantage of the potential for digital financial services to expand financial inclusion, efforts to make both technologies universally available are needed.

One effort to increase internet access has been the federal Lifeline program, which since 1985 has been helping low-income Americans obtain phone service and later to obtain internet access with the help of subsidies. The initial rationale – that all households needed access to phone service in order to participate in society and the economy in a meaningful way, such as being able to apply for jobs, receive emergency medical services and information – also applies to internet access.

The push now is for expanded broadband access, since it is essential for accessing web-based employment applications, public benefits forms, and income tax filing websites. And while we are aware that the Lifeline program has been criticized over the years and has not been without hiccups, the original premise and rationale for the program remain sound and improvements should be pursued aggressively.

### 4. A Balanced Regulatory Landscape that Protects Consumers and Supports Innovation

The issues surrounding financial regulation, fintech innovation, non-bank financial services providers, financial system soundness, and consumer protection are both critical and complex. However, as noted in our earlier discussion of the growth and consumer adoption of digital financial services in the United States compared to elsewhere around the globe, countries such as the United Kingdom and Sweden have developed banking regulatory systems that analysts characterize as being friendly to fintech innovation. These regulatory regimes are also viewed as giving countries a potential advantage in attracting fintech investment capital. An additional attraction of operating under these regulatory contexts from the financial services provider side is that they are typically centralized under one authority and national in scope, in comparison to the United States where multiple agencies oversee the industry and many financial institutions operate under state charters with associated banking regulations that can vary across 50 states.

But while the American banking regulatory framework may be in need of reform in order to support innovation, its responsibilities in ensuring the safety and soundness of the financial system and in protecting consumers are paramount. And while many fintech innovators and non-bank entities provide products and services advantageous to the underserved, consumer advocates note that others have taken advantage of the current regulatory regime's ambiguity about some new types of products and services.

Some bad actors have charged consumers exorbitant fees and interest rates that advocates contend are at predatory or near-predatory levels. An additional concern is that changes to federal regulations and the way that regulatory agencies operate could provide an opening for financial services providers to avoid regulations put in place by state regulators, thus

weakening consumer protections. Positive change in this arena will take expertise and caution.

Federal regulatory agencies such as the FDIC and Consumer Financial Protection Bureau have expressed concern about the need for an updated set of regulations that ideally could embody the best of both worlds – strong consumer protections and the flexibility to catalyze innovation, especially innovation that addresses the unmet needs of underserved consumers.

The complexities involved and the diversity of interests pressing their point of view guarantee that this will not be an easy task to accomplish but, if done well, the greater certainty for both innovators and consumers will ultimately help the financial services industry to maximize its creative potential to deliver better products at an affordable cost.

## 5. Modernization & Increased Security

Consumers consistently cite their concerns about the security of fintech products as a reason why they are reluctant to adopt digital financial services. A second reason for reluctance to utilize mainstream financial services as opposed to cash is the length of time between when a check is deposited and when the funds are posted to the account and available to use. Consider a consumer who gets paid the last day of the month but must pay rent and utilities the following day on the first day of the month. Waiting even three days for a paycheck to clear is not a viable option.

According to the United States Federal Reserve, “Businesses and consumers have expressed a demand for faster payments and could benefit from the prompt visibility of payment status and faster availability of good funds. Uncertainty in payment timing and delay of funds receipt can be costly to consumers and businesses as they manage their account balances from day to day.”<sup>109</sup>

Building a faster payments system would not only address some of the cash flow issues of many consumers, but would also present an opportunity to increase the safety and security of the system. Again according to the Federal Reserve:

“As new faster payments solutions are developed or integrated with existing systems, safety and security features can be

built from the ground up based on today’s knowledge of vulnerabilities in payment systems as well as any anticipated risks specific to payment speed and finality. If proper controls are in place, ...faster payments solutions can improve payment safety and security and reduce the risk for various parties involved in a transaction.”<sup>110</sup>

Improving the U.S. payments system will not be an easy task, as multiple players and systems that are currently fragmented must be brought together and coordinated. But, to ignore this pressing need risks further fragmentation and could even diminish the United States’ competitive advantage.

<sup>109</sup> Federal Reserve. “The U.S. Path to Faster Payments: Final Report Part One: The Faster Payments Taskforce Approach. January 2017.

<sup>110</sup> Ibid.



# CONCLUSION

The growth of fintech and the increasing adoption of digital financial services by consumers introduces new opportunities to increase access to financial services. However, a significant expansion of financial inclusion is not an inevitable outcome. Making fintech a true catalyst for change requires new and significant investments and commitment from a broad range of private, philanthropic, nonprofit, public, and regulatory institutions and actors across the financial services ecosystem.

By synthesizing research from every corner of the field and establishing an overview of low- and moderate-income consumer needs, this paper identifies both the barriers and the opportunities facing fintech providers. Additionally, it outlines areas of needed investment that, collectively, would open up greater access to and use of digital financial services for the financially underserved. These investments would also create new opportunities for the underserved to articulate their own needs and be involved in designing appropriate innovations in response. Even more, they could address the concerns of both providers and consumers related to system speed and security, ensure adequate consumer protection, and increase the capacity of a range of nonprofit and other intermediary institutions that are key partners in providing the underserved with the high-quality and affordable products and tools they need to maintain or improve their financial health.

This report also profiles a variety of promising initiatives that illustrate the sorts of innovative cross-sector collaborations needed to reach the underserved in new ways. Currently, the scale of such initiatives remains inadequate compared to the need. This is, in part, because these initiatives are still emerging but, more fundamentally, it is because they require greater resources and further integration into major private *and* public systems and institutions.

Fortunately, critical players across the financial services landscape are already articulating the required expertise and vision. Our hope is that what many describe as the “fintech revolution” will provide the basis for a deeper revolution in financial inclusion and health that so many families and communities desperately need.

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