Federal Reserve Bank *of* Atlanta

Shifting the Focus: Digital Payments and the Path to Financial Inclusion

A report from the Special Committee on Payments Inclusion

June 2023

Table of Contents

Acknowledgments

We appreciate the significant commitment and contributions of all the members of our Special Committee on Payments Inclusion. Their collective guidance from their respective areas of expertise for more than two years of committee membership led to defining barriers and developing possible solutions for greater payments inclusion for the future.

We thank the Committee members for their time investment and the research they conducted. We also thank the many others who contributed to this report. We could not have accomplished the important work reflected in this report without all of you.

Committee members

Raphael Bostic, president and CEO, Federal Reserve Bank of Atlanta
David Benck, senior vice president, Hibbett Sports
Sudheer Chava, PhD, Alton M. Costley chair and professor of finance, Georgia Institute of Technology
Matt Cochran, senior director of external communication, Global Pay
Andrea Donkor, vice president, PayPal
Timothy Flacke, cofounder and executive director, Commonwealth
John Garratt, executive vice president and chief financial officer, Dollar General
Mark Pearce, director, Division of Depositor and Consumer Protection, FDIC
Bruce W. Reynard, executive director, National ATM Council
Courtney Robinson, head of financial inclusion and public policy development, Block Inc.
Robert Skiba, executive vice president, InComm Payments
John Turner, chief executive officer and president, Regions
Silvanus J. Udoka, PhD, dean, School of Business Administration, Clark Atlanta University
Brian K. Williams, president, First Farmers

Additional report contributors

Felicia Brown, chief marketing officer, First Farmers
Susan Burhouse, senior consumer researcher, Division of Depositor and Consumer Protection, FDIC
Kimberly Henderson, senior principal compliance officer, Discover Financial Services
Yazmin Osaki, senior consumer research associate, Division of Depositor and Consumer Protection, FDIC
Barbara Springer, vice president and treasurer, Dollar General
Bincy Paul, senior third party risk analyst, Federal Reserve Bank of Boston

Federal Reserve Bank of Atlanta staff contributors

Fonda Bigbee, senior credit and risk analyst, Credit and Risk Management

Natalie Channer, examiner, Supervision and Regulation
Chris Colson, program director, Federal Reserve Financial Services
Dontá Council, adviser, Community and Economic Education
Ernie Evangelista, senior knowledge management specialist, Public Affairs,
Claire Greene, payments risk expert, Retail Payments Risk Forum
Megan Houck, senior business analyst, Regional Economic Information Network
Rachel Riezman, project manager, Cash Function Office
Oz Shy, senior policy adviser and economist, Research Division
Brenda Thompson, senior IT project manager, BTS Portfolio
Larry Wall, research center executive director, Research Division
Jessica Washington, assistant vice president, Retail Payments Risk Forum
Lali Shaffer, payments expert, *Retail Payments Risk Forum*
Scarlett Heinbuch, payments expert, *Retail Payments Risk Forum*

Atlanta Fed leadership sponsors

David Altig, executive vice president and director of research, Research Division
Leah Davenport, executive vice president, Corporate Engagement Division
Nell Campbell-Drake, vice president, Federal Reserve Financial Services
Erien Terry, assistant vice president, Supervision and Regulation

Executive Summary

The Atlanta Fed is committed to working toward achieving an economy that works for everyone and, specifically, that everyone has the option to use financial tools that support economic resilience and promote possibilities for mobility. With the economy's rapid digitization, economic exclusion could increase markedly, especially considering the wide range of ways consumers can transact. Digital innovations can sometimes exclude vulnerable populations or low- and moderate-income households, preventing these populations from enjoying some of the benefits. Digital payments can particularly disadvantage consumers who cash reliant, whether by choice or other factors.

To explore how the digital payment system could include more consumers, the Atlanta Fed organized a public- and private-sector collaboration called the Special Committee on Payments Inclusion (hereafter referred to as SCOPI, or the Committee). The initiative drew on the expertise and experience of the Committee members and Atlanta Fed staff. Though not all payments sector interests were represented, the Committee explored a wide range of payments research. The Committee did not commission new research or data collection.

The report's conclusions and recommendations are focused on overcoming seven barriers to digital payments adoption. To be sure, Committee members considered numerous barriers that are not covered here, but the report maps issues into a manageable number of barriers that they could address for greatest impact.

Recommendations in this report were informed by the Committee's expertise and are subject to risks and uncertainties that are difficult to predict or measure. We made assumptions based on our experience and awareness of current research, conditions, and trends. We intend our recommendations (summarized in the following table) to lay the groundwork for further exploration, research initiatives, or partnerships in three broad areas.

The views in this report are the Atlanta Fed's synthesis of various perspectives and do not reflect the perspective of any individual. Nor is this report representative of the views of the Atlanta Fed, the Federal Reserve System, or the Federal Open Market Committee.

Barriers to and Recommendations for Digital Payments Adoption

Barrier 1: Stringent documentation requirements		
Public policymakers	**Regulators**	**Financial institutions**
Research digital identification and other innovations to increase the availability of widely recognized documents.	Offer a universal transaction-account application as well as enhancements to know-your-customer requirements to allow services to be tiered according to available documentation.	Collaborate with other stakeholders to share information with regulators on realized fraud or security risks related to documentation issues.
Barrier 2: Lack of access to broadband or smart technology		
Public policymakers	**Regulators**	**Financial institutions**
Increase internet and cellular coverage for public use in geographically underserved locations.	Collaborate with telecom regulators and the Census Bureau to promote awareness of geographically underserved locations.	Provide low-cost broadband options or partner with telecoms to offer smart technology discounts.
Barrier 3: High and unpredictable fees		
Public policymakers	**Regulators**	**Financial institutions**
Conduct education campaigns tied to fair pricing around digital payments. Increase awareness of free and low-cost offerings.	Encourage low-balance notifications and produce guidance on designing payment products for inclusivity. Review regulatory requirements to reduce high or unpredictable fees.	Offer tailored products or Bank On programs and provide ongoing support to help people understand fee structures.
Barrier 4: Lack of availability of funds or of instant settlement		
Public policymakers	**Regulators**	**Financial institutions**
Offer instant payment channels, through which government benefit payments (to or from government agencies) are available, and inform recipients of the option to establish accounts that can accept instant payments.	Ensure instant payment systems offering consistent funds availability and consumer information standards.	Offer instant or instant payments to businesses and consumers, working with regulators and instant payment networks to resolve obstacles to instant payment adoption.
Barrier 5: Limited acceptance of payment type by businesses		
Public policymakers	**Regulators**	**Financial institutions**
Explore cash-in/cash-out network ubiquity.	Collaborate with small business programs to promote diverse payment types.	Offer discount programs for similar cohorts of businesses.
Barrier 6: Security and fraud concerns		
Public policymakers	**Regulators**	**Financial institutions**
Increase research in payments fraud trends.	Provide clarity on liability among parties to a transaction and dispute-resolution procedures.	Enhance transaction controls for consumers.
Barrier 7: Limited financial and digital education		
Public policymakers	**Regulators**	**Financial institutions**
Create K–12 and collegiate curricula on digital payments options and tips on data security as part of overall financial literacy programs.	Promote campaigns and guidance about inclusive design features in digital payments.	Provide targeted education via digital and nondigital channels, timed with decision-making events.

Purpose and Approach

Fostering payment systems' safety and efficiency

In addition to its role in formulating monetary policy, the Federal Reserve is responsible for maintaining the safety and soundness of the payments system. A reliable payments system is crucial to US economic growth and stability. Virtually all goods and services depend on smoothly functioning banking and financial markets, a condition that in turn depends on the integrity of the nation's payments system.[1]

Competition motivates the Fed and other service providers to process payments as efficiently as possible and continually improve the quality of the services offered.[2] Industry stakeholders recognize that further improvements in payment efficiency will most likely be the result of advances in digital technology. These gains will become more widespread as new technology becomes available.

Defining payments inclusion

The Atlanta Fed has taken on the additional goal of working to make the payments system inclusive. The Bank aims to improve access to and awareness of efficient, secure, and affordable payment services—including electronic payment mechanisms—that meet the needs of the low- and moderate-income or financially vulnerable people, families, and communities who should receive payment mechanisms. This involves maintaining cash as a payment option along with making digital payment methods available for low- and moderate-income people.

This focus makes sense for two reasons. First, the Atlanta Fed's district is a major hub for domestic payments—approximately 70 percent of US payments are processed in Georgia, according to the Technology Association of Georgia.[3] Second, the Atlanta Fed has undertaken efforts to work on issues related to economic mobility and resilience. To pursue this strategy, the Atlanta Fed seeks to understand why some people and places thrive economically and bounce back from economic shocks while others struggle.

---

[1] In some countries, payment authorities are purposely separated from their central bank. This separation has the advantage of keeping apart conflicting interests related to the banking sector and the efficiency of the payment system, which is becoming increasingly dependent on non-bank service providers. For example, see https://payments.ca/ (Canada) and https://www.psr.org.uk/ (the UK).

[2] The Monetary Control Act (MCA) of 1980 expanded the Federal Reserve's role in the payments system. The MCA requires the Fed to set fees to recover costs of providing payment services. The pricing of payment services has facilitated competition between the Fed and private-sector service providers.

[3] Campbell, Don and Glen Sarvady. 2021. *Georgia's Fintech Ecosystem: Strong and Growing Stronger, Fintech 2021 Report*. Technology Association of Georgia.

The Atlanta Fed recognizes that financial inclusion is critical to promoting economic mobility and resilience. Although most US households today have a bank account—historically an indicator of household wealth—upward mobility has fallen sharply over the past half-century[4] and income inequality in the United States is rising.[5] Having a bank account is typically an entry point to other financial services such as credit products and financial management tools. When used responsibly, these products and tools can enhance a consumer's credit profile, which may be reviewed when a person applies for employment or loan. Loans acquired for homes or education can be seen as investments, since they can help build wealth. So with most people having access to a bank account, why aren't all US households thriving? Why are some households underserved[6]—and why are they becoming further marginalized economically?

The Atlanta Fed began to explore the answers to these questions in a September 2020 discussion paper, "Digital Payments and the Path to Financial Inclusion." This paper looks at how a growing number of digital payments innovations are offering increasing benefits to consumers and businesses. Many consumers are now able to receive early access to wages, pay bills in ways that match cash flow, create a payment history that facilitates better access to credit, and have access to better tools overall for financial management. Many of these innovations can improve a person's financial well-being and economic outlook.

Although digital payments can benefit many people, they can exclude others from the financial system. A significant portion of U.S. consumers is cash reliant, and many of these people are also considered financially vulnerable.[7] So with digitalization, vulnerable populations may become further marginalized, and some may be blocked from accessing opportunities available to many others.

[4] Chetty, Raj, Nathaniel Hendren, David Grusky, Maximilian Hell, Robert Manduca, Jimmy Narang. 2016. "The Fading American Dream: Trends in Absolute Income Mobility Since 1940." National Bureau of Economic Research working paper 22910.
[5] Horowitz, Juliana Menasce, Ruth Igielnik, and Rakesh Kochhar. 2020. "Most Americans Say There is Too Much Economic Inequality in the U.S., but Fewer Than Half Call it a Top Priority." Pew Research Center, January 2020.
[6] An "underserved" consumer is one who is unbanked or underbanked.
[7] Coyle, Kelsey, Laura Kim, and Shaun O'Brien. 2021. "2021 Findings from the Diary of Consumer Payment Choice." *Fed Notes*, Federal Reserve Bank of San Francisco, May 2021.

The Special Committee on Payments Inclusion

The Atlanta Fed created the Special Committee on Payments Inclusion in 2021 as a public- and private-sector collaboration whose objective is to promote payments inclusion. Members include leaders in innovation, payments, and financial inclusion who bring their unique knowledge and skills in payments, complementing the expertise at the Atlanta Fed. The Committee aims to play a pivotal role in supporting safe and inclusive payments innovation that advances economic mobility and resilience.

In particular, the Committee has examined why some consumers do not adopt digital payment services and looked at the payments behavior of consumers—considering questions like: What are their preferences and concerns? What barriers do they face? —to identity opportunities and provide recommendations for lowering adoption barriers.

The Committee has sought to:

- Understand and identify cash-reliant populations.
- Better understand the needs of cash-reliant consumers segments.
- Identify the root causes for why cash-reliant consumers either choose not to adopt digital payments or cannot adopt certain digital payment options.
- Identify the desired outcomes in payment scenarios that all users of financial services should experience.
- Make recommendations to the industry and policymakers to improve payments inclusion.[8]

In its first year, the Committee reviewed existing resources and initiatives addressing financial inclusion, cash behaviors, and digital payment benefits and adoption challenges. Building on a foundation of accumulated information, the Committee began to analyze these resources. The experience and expertise of the Committee's diverse membership enabled the members to bring profound insights to this analysis. The Committee conducted limited interviews with other external partners active in digital payments to inform the analysis and, ultimately, better identify the existing payment-inclusion gaps in the US market.

Members of the Committee were divided into three workstreams by expertise. These workstreams were :

- Cash-reliant consumer research
- Financial institutions and payment provider activities
- Digital payment benefits and adoption

[8] Most of the policy recommendations are not for the Federal Reserve to solve. Rather, the role of the Federal Reserve Bank of Atlanta's participation in the Committee is to raise issues and propose viable solutions that elected policymakers can undertake.

The Committee has completed its research. This report contains recommendations intended to address identified barriers. Because of time and resource constraints, the Committee cannot investigate all solutions in the market and therefore focused on a limited number of promising payments applications.

Measuring and Analyzing the Current State of Payments

In this section, we explore the reasons for cash reliance or preference, focusing on four core dimensions: characteristics and demographics, needs and use cases, areas of vulnerability in cash reliance, and barriers to adopting digital payments. By deepening our understanding of the reasons people use cash, we can address the limitations of using cash and highlight the benefits of using other payment types.

Cash-reliant populations

Even in today's digital world, cash remains a key payment method many underserved consumers use for day-to-day financial transactions. Cash is most frequently used for everyday expenses (such as gas, groceries, meals, or tips) and utility bills. A Federal Deposit Insurance Corporation (FDIC) research study, which included interviews with underserved consumers, suggests that these consumers' financial services behaviors are determined by their ability to meet a range of practical and intangible needs, such as control over finances, access, convenience, affordability, security, and more.[9] In addition, for vulnerable groups, such as low-income families, the visually impaired, the elderly, migrant communities, and victims of domestic abuse, cash is often a critically important form of currency.[10]

Cash is still a heavily used payment instrument. Reasons people use cash include:

- Anonymity and lack of any record
- Instantaneous final settlement, instant access to money, and no holds
- No reliance on third parties
- Offline payments that don't require electricity, an internet connection, or cellular service. This aspect is particularly important after natural disasters or during economic and political crises.
- Low cost
- Ease of control of cash spending and budgeting. Users know cash balance in real time, which is especially useful for those with low incomes or liquidity constraints.[11]

---

[9] Burhouse, Susan, Benjamin Navarro, and Yazmin Osaki. 2016. "Opportunities for Mobile Financial Services to Engage Underserved Consumers Qualitative Research Findings." Federal Deposit Insurance Corporation, May 2016.
[10] Hogan, Julie. 2021. "Dear Banks, Cash Is Still King for Many Underbanked Americans." *American Banker*, September 2021.
[11] Hernandez, Lola, Nicole Jonker, and Anneke Kosse 2017. "Cash versus Debit Card: The Role of Budget Control." *The Journal of Consumer Affairs*, Spring 2017.

- Social norms and habit formation. This discussion includes various findings that consumers' peers can influence their perceptions and payment behavior.[12]

An FDIC qualitative research study revealed some drawbacks to cash use as described by consumers. Some people fear that cash, especially in larger amounts, draws the wrong kind of attention and could result in theft with little recourse for the victim. While some consumers like the lack of a paper trail, others believe it makes proving income or payment difficult. Many consumers feel cash is safer because it does not invite identify theft, electronic fraud, or hacking. Others disagree, noting that cash can be lost, stolen, or damaged and the holder has no way to retrieve funds. Other payment methods have established protocols for addressing theft and fraud.

Some examples of complicated cash-use scenarios include:

- Rent or mortgage payments
- Online marketplaces[13]
- Large purchases
- Hotel or rental car reservations
- Bill size limits; many establishments don't accept larger-denomination bills

Some consumers acknowledge they spend cash quickly and with less focus on planning and money management. In that regard, they describe having money in a bank account or held by a nonbank as better. However, others withdraw cash to intentionally limit spending, knowing they cannot spend more cash than they have available. Both types of consumers need to feel like they have control over their money, and having cash provides a sense of control through confidence in quickly processed transactions and the absence of unexpected fees, which other financial payment mechanisms do not necessarily provide.

The FDIC study identified the following seven core needs that underserved consumers require from financial services:

- *Control over finances*. Consumers want to know exactly when and why money leaves and enters their accounts, and they want certainty about the financial product's terms and conditions.

- *Access to money.* 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.

[12] Charles M. Kahn, Jose M. Liñares-Zegarra, and Joanna Stavins. 2017. "Are There Social Spillovers in Consumers' Security Assessments of Payment Instruments?" Federal Reserve Bank of Boston working paper no 16.19.
[13] As an alternative, some online retailers offer a cash-on-delivery or collect-on-delivery service. Payment methods can be cash, check, mobile, or online card payments.

- *Convenience.* Consumers value features of a financial product or relationship that save time or effort when they are conducting transactions.
- *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 be able to access live help through their preferred banking channel.
- *Long-term financial management.* Consumers seek advice on money management or the availability of tools to meet financial goals (for example, spending reports or savings trackers).

The unbanked

According to the 2021 FDIC Survey of Unbanked and Underbanked Households, "an estimated 4.5 percent of U.S. households [approximately 5.9 million] were 'unbanked' in 2021, meaning that no one in the household had a checking or savings account at a bank or credit union." This proportion represents a historically low unbanked rate in the United States. Rates of being unbanked are much higher for single-mother households: 15.9 percent as opposed to 1.8 percent for households composed of married couples. Rates are also higher among lower-income households, less-educated, Black, Hispanic, and working-age households with a disability. Consumers who are unbanked are more likely to rely on cash.

Senior citizens

Although many seniors carry and use cash, it is important to note that most in this group have bank accounts that allow them to use digital payments. The unbanked rate among households age 65 and older is only 2.7 percent, the lowest of any age group.

Newly formed households

Findings of the 2021 Diary of Consumer Payment Choice show that those in this group are the second-highest users of cash.[14] Younger households have higher unbanked rates than do older households, which may account for some of their increased use of cash. The youngest households—those headed by someone age 24 or younger—have an unbanked rate of 5.8 percent, and households headed by someone age 25 to 34 had an unbanked rate of 5.1 percent in 2021.

[14] Coyle, Kelsey, Laura Kim, and Shaun O'Brien. 2021. "2021 Findings from the Diary of Consumer Payment Choice." Fed Notes, Federal Reserve Bank of San Francisco, May 2021.

Beyond factors like access, adoption, and choice that can define certain consumer segments, other factors can also increase vulnerability.

The UK's Financial Conduct Authority (FCA)[15] has published guidance for firms on the fair treatment of vulnerable customers.[16] The guidance defines a "vulnerable customer as someone who, due to their personal circumstances, is especially susceptible to harm, particularly when a firm is not acting with appropriate levels of care." It further identifies characteristics associated with four drivers of vulnerability, shown in the table below.

Health conditions or illnesses that affect the ability to carry out day-to-day tasks	Life events such as bereavement, job loss, or relationship breakdown	Lack of or low resilience, or a low ability to withstand financial or emotional shocks	Low knowledge of financial matters or managing money, or low capability in relevant areas such as literacy or digital skills
Physical disability	Retirement	Inadequate income	Low knowledge in managing finances
Severe or long-term illness	Bereavement	Erratic income	Low confidence in managing finances
Hearing or visual impairment	Income shock	Over indebtedness	Poor literacy or numeracy skills
Mental health condition	Relationship breakdown	Low savings	Poor English-language skills
Addiction	Domestic abuse (including economic control)	Low emotional resilience	Poor or nonexistent digital skills
Low mental capacity	Caring responsibilities		Learning difficulties
Cognitive disability	Other circumstances		No or low access to help or support

Several key takeaways from the FCA's guidance can help deepen understanding around consumer vulnerability. The drivers are complex, and characteristics of vulnerability should be analyzed on a range of severity. Anyone can become vulnerable, and generally, people dislike being labeled as vulnerable.

[15] The FCA is the conduct regulator for around 50,000 financial services firms and financial markets, and the prudential regulator of around 48,000 firms in the United Kingdom.
[16] Financial Conduct Authority. 2021. "Finalised Guidance FG21/1 Guidance for Firms on the Fair Treatment of Vulnerable Customers." Financial Conduct Authority, February 2021.

The Committee aimed to identify barriers inhibiting digital payments inclusion by analyzing cash-reliant populations. Based on the research reviewed by the Committee and through analysis of root causes, we identified barriers to address in this report.

When consumers have low financial or technological literacy:

- It could be attributable to learned habits or social norms.
- They value the ease of paying in cash, and holding cash is a habit.
- They value the finality of settlement with cash transactions, which is also related to convenience.
- They lack awareness or knowledge of digital financial tools and technology.

Poor product or service design by providers (bank or nonbank) is a key factor when consumers choose to be cash reliant. The features of poor product or service design, either real or perceived, are mostly:

- High or unpredictable fees
- Limited payment options (to send or receive payments) offered by businesses
- Limitations of products or services to a specific technology
- Documentation requirements, deterring the opening of a transaction account needed to fund digital payments or acquire a digital payment product
- Inability to use cash in/cash out to fund payments and to convert received payments into cash
- Lack of immediate settlement options, which don't align with income, spending expectations, or schedules
- Lack of access to broadband or smart technology
- Physical or cognitive disabilities that weren't considered during product or service design
- Limited access to credit, which prevents access to owning a transaction account or obtaining a credit line to use with a digital payment

When consumers exhibit risk aversion, they might:

- Desire anonymity or privacy
- Have concerns about security or fraud
- Be averse to debt because of a volatile or low income, which would make them worry about a negative account balance
- Distrust financial services or technology

When cash management is a concern:

- Payments settlement speed insufficient for the consumer's cash-flow needs

Bank and service provider activity

Banks and their service providers play a key role in providing safe and accessible financial services. Subject to regulation, these entities must comply with various safety and soundness guidelines, consumer protection laws, and anti–money laundering rules. Depository institutions that are members of the FDIC offer deposit insurance for consumers and businesses. As a gateway to other financial products, bank or transaction accounts promote economic well-being as they inherently enable digital payments while connecting consumers to other products and services. These other products and services could include savings and lending products that, when used appropriately, lead to greater creditworthiness for consumers.

Banks and nonbank providers have launched new transaction account products that can address some cash-reliant consumer needs, including general-purpose reloadable prepaid cards, checkless checking accounts, and no-overdraft-fee accounts. Some are starting to offer single-service options for customers who do not want an account. Most of these services and products are more affordable than those offered outside the banking system.

Advances in technology:
Adoption of instant payment networks by financial institutions and service providers is increasing. Transaction accounts that allow instantaneous payments can offer more control and convenience to consumers. Just-in-time deposits can help make bill payment timely and curtail late and overdraft fees. According to a report by Javelin Strategy & Research, "three-quarters of consumers said it's important to be able to receive payments and access funds instantly" and more than half said it is essential.[17] Some of the perceived benefits to instant payments that consumers cite include late fee avoidance, convenience, flexibility, and control. It should be noted that to use instant payments, a consumer needs an account with the right technology. A financial institution can offer such an account, as could a nonbank. Nonetheless, account ownership is necessary.

Other benefits of instant payments include decreased use of check-cashing services and costly payday loans, which mean fewer opportunities for a consumer to receive a negative report on their credit profile and more opportunity to eventually receive an improved credit score. Entrepreneurs and gig workers who have a less predictable cash flow are likely to benefit as well. In addition to other real-time payment systems, the Federal Reserve will launch a 24/7 instant-payments service called FedNow. The service will allow funds to settle instantly between participating financial institutions or service providers, thereby benefiting the business and individual customers of these institutions.

More banks today offer customers a full digital experience, from account opening and servicing to closing. New digital offerings from upgraded bank platforms or innovative service providers allow even more financial freedom. Mobile banking as a primary method of account access has steadily increased in recent years, overtaking online banking as the primary method. An FDIC study found that mobile banking improved the value of banking services for many consumers

[17] Keyes, Daniel. 2021. *Real-Time Payments: An Urgent Priority for Financial Institutions*." Javelin Strategy & Research, November 2021.

by enhancing the control, convenience, and—in some cases—even the affordability of having a bank account.[18] Mobile banking users in the study were vocal about the ways that mobile financial services increased their awareness of account balances and helped them better understand the timing of when funds leave and enter their accounts. Mobile banking also gives underserved consumers the ability to monitor charges and fees, such as overdraft fees, and even, in some cases, avoid them. Mobile banking was also described as a convenient recordkeeping tool that can be easily accessed when disputes about payments arise. This type of control over managing funds was important for all consumers but particularly for underserved consumers, who often have less leeway in their budgets.

Banks are investing more in technology that gives consumers greater control, such as smart, video-enabled, and cash-deposit ATMs. Feeling in control over finances is an important objective for cash-reliant consumers. When financial institutions provide conveniently located branch and ATM locations near neighborhoods and places of work, consumers can benefit from the self-service nature of ATMs or video tellers as well as from a professional's financial guidance.

Financial education:
Like all banking customers, underserved customers are looking for trusted advice on how to improve their financial health as well as advice on the products and services that can help them achieve that goal. Access to skilled and licensed bankers across a range of delivery channels allows customers to receive this guidance. Banks have played a critical role in delivering financial education programming as individuals navigate their financial lives. Providing complimentary access to materials, tools, and resources to customers and the community at large can help underserved customers be better prepared financially and make informed financial decisions. With respect to banking status, financial education helps individuals understand the importance and value of bank accounts and facilitates the opening and ongoing use of a bank account.

As the digital divide grows, so does the knowledge gap. A 2022 study found differences in financial capability among demographic groups.[19] According to the study, "younger respondents, those with lower incomes, those with lower education levels, and Black/African American and Hispanic/Latino respondents continue to show higher levels of vulnerability across multiple measures of financial capability." The study also found higher financial literacy ratings to be strong correlated with behaviors indicative of higher financial capability. A person

[18] Burhouse, Susan, Benjamin Navarro, and Yazmin Osaki. 2016. "Opportunities for Mobile Financial Services to Engage Underserved Consumers Qualitative Research Findings." Federal Deposit Insurance Corporation, May 2016.
[19] Lin, Judy T., Christopher Bumcrot, Annamaria Lusardi, Gary Mottola, Olivia Valdes, Robert Ganem, Christine Kieffer, and Gerri Walsh. 2022. "Financial Capability in the United States." Finra Foundation, July 2022.

who is financially literate is more likely to have the awareness and knowledge to be financially capable than someone who is not, and will tend not to behave in a way that might indicate that person is under financial stress. Education may not, however, wholly build financial capability. Someone's motivation to be financially capable can be impacted by factors difficult to measure, such as trust.

Recent research assessing whom consumers have trust concluded that US households are more likely to trust traditional financial institutions to protect their privacy than they would government agencies or fintechs, and they have even more reservations about large tech firms.[20] The questions focused on the entities' ability to safeguard such personal information as transaction and geolocation data as well as social media information. Conversely, the survey revealed that trust varied among different groups, with younger individuals trusting fintechs more and minorities expressing more distrust of traditional financial institutions. In addition, financial institutions' sharing of personal data was a matter of concern for females, minorities, and younger people. All cohorts cited great concern about identity theft.

Challenges facing banks:
Banks—and community banks, especially—confront certain challenges in their goal to increase financial inclusion. The main obstacles for community banks are resources and technology. Smaller banks typically do not have staff dedicated to focusing solely on innovative inclusion strategies. We have noted that digital banking is fundamental to bringing unbanked customers into the financial services fold. However, many banks operate on legacy systems, making some processes difficult to overhaul. Some banks opt to partner with or employ the services of a third-party fintech to increase their technological efficiency.[21]

In addition, some institutions lack the resources to offer inclusive services and products. Some specialized organizations—which the CDFI Fund designates community development financial institutions (CDFI)[22]—provide financial services to low-income communities and people who otherwise lack access to financing. But CDFIs and minority-owned banks have found it challenging to raise capital to increase financial inclusion, expand services, and reduce inequality among communities across the United States. Despite new billion-dollar capital resources from public and private sectors, CDFIs and minority-owned banks must first "adapt their business models radically, invest in human capital and physical infrastructure, as well as

---

[20] Armantier, Olivier, Sebastian Doerr, Jon Frost, Andreas Fuster and Kelly Shue. 2021. "Whom Do Consumers Trust with Their Data? US Survey Evidence." BIS Bulletin, Bank for International Settlements, May 2021.
[21] Board of Governors of the Federal Reserve System. 2021. "Community Bank Access to Innovation through Partnerships." Board of Governors of the Federal Reserve System, September 2021.
[22] CDFIs include regulated institutions such as community development banks and credit unions and nonregulated institutions such as loan and venture capital funds.

enter into partnerships to originate assets and implement programs that meet the impact goals of their work," as a contributor to *American Banker* wrote.[23] Second, CDFIs and minority-owned banks must become investor-friendly. Third, capital and funding should be significant, long term, and lower cost.

Investment and resource challenges also affect a CDFI's ability to maintain convenient physical locations throughout geographic regions. The G20—a group of the world's 20 largest economies—measure financial inclusion with indicators that look at proximity to points of service, such as the number of agents of payments, bank branches, or ATMs per 100,000 adults.[24] Factors that are associated with a lack of financial services in certain regions may include underperforming branches, an increased use of digital and mobile banking affecting foot traffic, or a region's population loss.

In underserved geographic regions where financial institutions have exited, independent ATM operators often strategically deploy machines. Researchers conducting a locational study of ATMs in the United States by ownership found that two-thirds of ATMs are deployed in retail locations and independent ATMs serve areas with higher concentrations of underserved or unbanked citizens. Last year, the Financial Crimes Enforcement Unit, or FinCen, released a statement acknowledging how "some independent ATM owners and operators have reported difficulty in obtaining and maintaining access to banking services, which jeopardizes the important financial services they provide, including to persons in underserved markets."[25] The statement also offers best practices for applying a risk-based approach to conducting due diligence.

Potential benefits of fintech providers:

Banks typically use a variety of fintechs, which offer cost-efficient technological solutions for banks that might not have the resources or desire to create in-house solutions. This relationship can take many forms, including a traditional vendor/client relationship, a partnership, or a referral-based program.

The growing collaboration and integration of fintechs and traditional banking are benefiting both institutions. Traditional banks can benefit from the innovation and agility of fintech. At the same time, traditional banks can boost confidence in fintechs by offering well-established economies of scale, established networks, and diversified product sets. Some fintechs also

---

[23] Narain, Saurabh. 2021. "Flush with Capital, CDFIs Need to Start Thinking Bigger." *American Banker*, August 2021.
[24] Global Partnership for Financial Inclusion. n.d. "G20 Financial Inclusion Indicators." Global Partnership for Financial Inclusion, summary note.
[25] Financial Crimes Enforcement Network. 2022. "Statement on Bank Secrecy Act Due Diligence for Independent ATM Owners or Operators." Financial Crimes Enforcement Network, June 2022.

have the potential to reduce transaction costs for certain financial services. In some developing countries, fintechs allow low-income people to receive banking services traditionally reserved for corporations and people with high incomes. In fact, most countries across the globe consider a consumer who uses mobile money or e-money accounts provided by fintechs to be "banked." Fintechs can also offer faster service by, for example, decreasing the amount of time required for family and friends to transfer money long distances when they are helping someone who may have experienced an unexpected drop in income.

Fintechs that enable more efficient back-end processes for banks can free up banks to focus on their primary objective, which is building relationships and providing appropriate products and services. Fintechs may be able to provide agile tech solutions for a variety of elements of a bank business model. These solutions can range from core operations to front-end, client-facing platforms. However, fintechs face many challenges and certain fintech business models and approaches may also present a number of potential challenges and risks to banks and consumers.

Potential challenges to fintech providers:
The World Economic Forum held a roundtable series focused on fostering partnerships that advance inclusive digital financial services.[26] This global perspective included fintechs, financial institutions, central banks, financial regulators, and the development community.

The series surfaced three common challenges for fintechs.

- *Navigating the regulatory landscape*. Firms are subject to scrutiny from multiple regulatory agencies, and these obligations also differ across the markets served. In the United States, fintech firms must apply for various licenses and comply with state, national, and international regulations.
- *Promoting digital and financial literacy.* Certain consumers lack financial literacy in general, as noted previously. However, the digital age has created a second challenge: being able to use financial technology safely. Though consumer protection laws and other safeguards are in place, customers are their own front-line defense, holding the power to choose their own fintech products and the responsibility of releasing their data.
- *Developing a digital financial infrastructure.* An ecosystem that has inclusive products starts with fundamental components. Besides agile core systems, these components might include considerations such as data standards and protocols and a robust network for offering mobile and broadband capability.

[26] Weisman, Ben, Bryan Zheng Zhang, Hunter Sims, Herman Smit, and Drew Propson. 2021. "How to beat the 3 challenges to building inclusive digital financial services." World Economic Forum, December 2021.

Regarding the topic of infrastructure, existing or legacy frameworks that are used for new digital product offerings can inhibit customer-friendly innovations. A fintech that must use a legacy system may be more challenged by the slower movement of money than if it had access to instantaneous or omnichannel processing. Other challenges include the limited data that are sometimes available from traditional credit-reporting agencies and difficulties in verifying identities of people opening accounts.

Service providers are regulated even when they do not offer the full suite of products and services that traditional banks do. Certain compliance requirements can be particularly cumbersome since the cost cannot be distributed across the full menu of services. From their perspective, full compliance with regulations can create friction, especially know-your-customer (KYC) requirements. Banks and providers must have valid proof of a potential customer's identity and address, a step that can restrict access to digital accounts for certain populations. In some cases, for example, KYC rules might affect an immigrant's willingness to share certain documentation with regulated entities because this person has a general mistrust of the government. Or a potential customer may not possess a government-issued ID or have a permanent address because they are experiencing homelessness or are temporarily or seasonally employed. A person who requests a government-issued ID must have some address history, which can be particularly problematic for someone who is formerly incarcerated or a survivor of domestic abuse. Although banks and providers have *some* flexibility in accepting alternative forms of identification, that flexibility is not often offered or even widely understood. Service providers may want to keep an open dialogue by exploring areas of regulatory friction, which could also uncover areas that hinder the use of mainstream financial products.

There is a reluctance among certain banks to invest in fintech advancements that could directly benefit underserved communities. Some fintechs are seeking to fill this gap, but the result is a transactional relationship between the fintech and the consumer, in which the fintech ends up solving only specific problems. In this go-to-market model, fintechs compete with banks that can offer a broader set of wealth-building or resilience tools, from mortgages to investment advice and more. If fintechs can attract investments in their advanced digital payment solutions—especially those suited to underserved populations—they may benefit financial institutions as these financial institutions seek to meet their Community Reinvestment Act requirements. As a result, we may see better outcomes for inclusion when cutting-edge payment products attract new customers and connect them to applications that reinforce economic wellbeing.[27]

[27] The Community Reinvestment Act, enacted in 1977, requires the Federal Reserve and other federal banking regulators to encourage financial institutions to help meet the credit needs of the communities in which they do business, including low- and moderate-income neighborhoods.

Barriers and recommendations

The following section describes seven barriers to payments inclusion. In each section, we describe the limitation, then we offer recommendations, and then we provide brief details about those recommendations. We intend this section to be a preliminary foundation for future stakeholder discussions and collaborations.

Barrier 1—Stringent documentation requirements

For some people, documentation requirements such as KYC initiatives can represent a barrier to opening transaction accounts and using digital payment products. Efforts to verify an individual customer's identity, suitability, and risks can mitigate and protect the financial institution or service provider from money laundering, terrorist financing, and other criminal activities.

These rules are in place to safeguard the financial system. However, standard practices might hinder some people from opening accounts. Current KYC processes pose a barrier for several reasons, including the costs of compliance, which may be passed on to customers; privacy concerns related to the customer identity information being sought; and customer inability to provide the necessary identity information.

While KYC processes and guidelines vary worldwide, this report focuses on three areas: a universal customer application, technological solutions to automate or digitize customer-facing KYC processes, and reduced or alternative customer identification requirements as part of this process.

Recommendations

As a matter of public policy, additional research should be undertaken about potential digital identification and other innovations to increase the availability of widely recognized documents.

US regulators should research the feasibility of offering a universal transaction account application and explore enhancements to KYC requirements, which could allow services to be tiered based on available documentation.

Banks and service providers should collaborate with other stakeholders to share information with regulators regarding realized fraud or security risks related to documentation issues, and this information could inform policy decisions.

Initiatives on financial inclusion by certain countries across the globe have aimed to enhance KYC regimes. Any change in regime must consider the balance between the risk of creating new mechanisms for money laundering and financial crimes and the benefits of improving financial inclusion. For instance, KYC requirements for specific transactions, products and financial services could be simplified while considering the risks.

Mexico is an example of a country that has rolled out a tiered approach to KYC. In August 2011, Mexico developed and implemented a multi-level approach for opening deposit accounts at credit institutions, making the opening requirements for low-value accounts risk based. It should be emphasized that the country identified three levels of simplified accounts in addition to the traditional account, and that the requirements increase as restrictions on transactions and channels ease. For example, level 1 allows a customer to open an account with a maximum balance of US$370 through their smartphone without providing documentation. The customer can obtain a debit card but does not have mobile access to funds. Level 2 allows access by any electronic means and requires only basic information such as name, birth information, and address, with no requirement of physical documentation. It should be noted that both tiers have a maximum number of monthly transactions. Level 3, with a higher maximum opening balance, has more stringent requirements, including that the customer must open the account in person and supply more information. This tiered approach has had a positive impact in three ways:

- It led to a reorganization of different products in the market around a single approach based on deposit accounts, giving visibility to products that were previously not considered deposit accounts.
- It provided more flexibility for commercial banks that participate in distributing government payments.
- It enabled new products, many designed around payment instruments, which would not have been possible without this regulation.

The second example comes from India. In 2009, India created a unique, and modern, national identity system using the Aadharr (Hindi for “foundation”) card system, a program that created a biometric digital ID system. It consisted of collecting photos, fingerprints, and other biometrics from its citizens at enrollment centers across the country. To date, about 90 percent of India’s population has signed up for a digital identity. A key driver of the program was a government policy that prioritized access to the banking system as a tool to reduce poverty and increase inclusive growth. Lack of proper identification was identified as the primary barrier to financial inclusion for the poor.

Every person who enrolls in the program is given a unique 12-digit identification number, which allows them to open a bank account and gain access to public documents and services like tax compliance, government subsidies, and retail payments. The Aadharr database has helped to drastically reduce fraud and fake identities as identities can now be verified from a single database. Consumers enjoy the benefits of funds being directly deposited into their account and accessed via debit cards and digital wallets on smartphones. Additionally, the program is simple, low cost, and a faster means to receive, store, and send money. (It must be noted that India also has the highest number of inactive bank accounts on record.)

Years later, India went a step further and added a layer called the Unified Payments Interface to the payments system. This modification has made it possible for banks to exchange messages and payment orders with nonbank firms. Additionally, it has enabled those without a bank account to receive and make payments for goods and services through a mobile digital wallet.

Barrier 2—Lack of access to broadband or smart technology

Digital payments require reliable internet or cellular connectivity. Most but not all US households have smartphone or high-speed home internet access. The US Census Bureau and the National Telecommunications and Information Administration created a new public dashboard that can view broadband reach.[28] The dashboard is the result of new legislation to expand broadband to all US households, and it shows that the number of households without a broadband subscription correlates highly with low and median household income.

Similarly, another study shows that although 85 percent of US households have smartphones, ownership rates vary among demographic groups.[29] Though smartphone ownership rates are consistent across racial groups, they are not consistent across other demographic groups and are notably lower among households that are older, less educated, and lower income, similar to the characteristics of cash-reliant populations.

Recommendations

As a matter of public policy, public access to broadband internet and cellular coverage should increase in underserved locations. The Committee discussed how using public computers or devices is not ideal for personal financial management, and therefore specified that better coverage will allow the use of personal devices.

US banking regulators could collaborate with telecom regulators and the Census Bureau to promote awareness of underserved locations and highlight the specific benefits of payments inclusion, which can be economic, social, employment, and more.

Banks and service providers could explore options on providing low-cost broadband options or partner with telecoms to offer smart technology discounts.

Barrier 3—High and unpredictable fees

As a barrier to digital or general banking adoption, high or unpredictable fees can stem from unpredictable income or budgeting issues, whether related to the level of pay, the variability of pay, or the method of payment. Potential fees associated with banking include minimum balance and overdraft fees. On the other hand, fees associated with being unbanked could

[28] Bowers, Lauren and Suzanne McArdle. 2023. “New ACCESS BROADBAND Dashboard Helps Assess How Broadband Availability and Adoption Impact Local Economies.” United States Census Bureau, February 2023.

[29] Pew Research Center. 2021. “Mobile Fact Sheet.” Pew Research Center, April 2021.

include those incurred when consumers patronize check-cashing services, use prepaid cards (such as fees for activating, reloading, and maintaining the card), purchase money orders, and use bill-pay services. According to the FDIC study, high and unpredictable bank fees were among the top five reasons underserved consumers cite for remaining unbanked.[30] The effects on the economy and the individual are clear: these fees erode spending power and do the most damage to people with the lowest incomes. Unpredictable fees also discourage the use of new products and technologies. Research shows that many consumers value predictability even over cost.

In addition to fees associated with banking, being unbanked can be expensive. Consumers can pay fees to cash checks, make bill payments, and add money to prepaid cards. These fees can significantly reduce the disposable income of those who already have tight budgets. Bringing banking access to this population, while ensuring that they do not face high or unpredictable fees once banked, can benefit not only the individuals but also the local economy overall.

Recommendations

As a matter of public policy, produce education campaigns tied to fair pricing around digital payments. Increase consumer awareness of free and low-cost offerings.

As a matter of regulation, encourage low-balance notifications and produce guidance on designing payment products for inclusivity. Review regulatory requirements to reduce high or unpredictable fees.

As a matter of bank and service provider activities, offer tailored products or programs (such as Bank On, described below) and provide ongoing support for understanding fee structures. Contribute to data sharing to measure the success of such programs.

Financial institutions are encouraged to investigate options for their low- and moderate-income clientele to prioritize transparency and clear pricing. Additionally, providing related education and outreach will help to foster mutual trust. Such education and outreach include providing products tailored to serve the needs of at-risk communities, such as no-fee checking accounts and low-balance alerts. The Bank On program was established to assist in this regard and offers a set of standards and functionality that banks and credit unions can use to offer low-cost transactional products. The benefits to the institutions include a larger and more sustainable customer base, along with CRA credit. Consequently, outreach and education strategies that highlight the benefits of the Bank On program and encourages financial institutions to join their local Bank On coalition or launch their own are especially promising.

The Bank On program isn't directly available to fintechs, although they can and often do offer similar features and functionality. Going a step further, fintechs have created many

[30] Kutzbach, Mark, Joyce Northwood, and Jeffrey Weinstein. 2021. "FDIC National Survey of Unbanked and Underbanked Households." Federal Deposit Insurance Corporation, 2021.

applications that aim to help consumers manage their money. Open banking and open finance are among the terms that describe this financial ecosystem. In this environment, application programming interfaces allow for connectivity between systems, such as a bank account and a fintech platform. For example, a consumer might consent to the use of their bank data (usually via a login process) by a third party that provides services such as digital payments or portfolio analytics. The third party might also provide tools such as advice or optimization dashboards for budgets, investments, or loans. Open banking and open finance can allow consumers to have a more complete view of their financial situation. However, such situations may entail risks to data privacy and security, and, in some cases, even risks that data could be used in ways that consumers did not intend to permit.

Machine learning can further enhance data shared between banks and third parties. Algorithms may quickly identify preconfigured parameters such as outliers, trends, and likely outcomes, with the systems continuously learning based on newly generated data. Systems can be constructed to deliver output in a variety of methods, including alerts for fraud or balance information, which can augment the decision-making and monitoring processes for firms and consumers. But machine learning can also involve risk, including risks in fair lending.

Barrier 4—Lack of availability of funds or of instant settlement

A significant barrier to digital payments adoption and reliance on cash relates to issues surrounding the availability of funds and settlement. Cash is immediately available when exchanged for payment, thus for consumers who have sensitive cash-management or liquidity needs, cash is attractive for its immediacy and availability. For consumers who have low financial or digital capabilities, cash is attractive for its ease and finality of settlement. For these consumers, instant payments and clear information about funds availability could provide sufficient incentive to adopt digital payment methods.

Recommendations

As a matter of public policy, government benefit payments (to or from a government agency) should be available through instant payment channels.

As a matter of regulation, instant-payment systems should offer consistent funds availability and consumer information standards.

As a matter of bank and service-provider activities, instant payments should be offered to businesses and consumers.

Government payments:
The Global Findex Database 2021 reported that in developing countries, receiving a payment into an account was a gateway to using other financial services.[31] In developing countries, 83 percent of those receiving a payment into an account made a digital payment. Of those adults receiving a government transfer or pension payment into an account, 70 percent made digital payments.[32]

In the United States, almost all federal government payments are delivered using direct deposit via ACH. These payments can go into a bank account or can be delivered to a prepaid card account. State benefit disbursements are making advances toward electronic delivery but at a varying pace. Digitizing government payments can reduce administrative costs and leakage (or payments that do not reach intended beneficiaries).[33]

Simply delivering funds electronically is insufficient. The account (even when considered a prepaid card account) should be enabled to conduct subsequent digital payments such as paying bills, transferring money to family or friends, and making purchases. Today, many government disbursements in the United States are placed in accounts that have limited features and functionality, with some incapable of receiving funds from other people or businesses or being reloaded by the account owner. As we discussed in the banking activities section, advances in technology, such as instant payments, have the potential to disburse government payments to a broader array of accounts. These accounts can expand the spectrum of products and services offered to individuals.

A need for consistency:
Speed of receiving income matters to consumers, but understanding digital payments' varying clearing and settlement technicalities holds challenges. User experiences vary across payment types and service providers. Inconsistencies lead to mistrust and ultimately deter cash-reliant consumers from using digital payments.

Account holds on funds deter consumers with sensitive cash-management or liquidity needs. When cashing or depositing a check, a consumer may be forced to turn to more expensive services such as check cashers. They are simply seeking providers who can put cash in their hands for immediate needs, versus paying lower costs by using a bank account. Holds are used by financial service providers across several payment types. The purpose of holds is to manage

---

[31] Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, and Saniya Ansar. 2022. *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*. Washington, DC: World Bank.
[32] Financial services measured in the Global Findex Database were: [a person] made a digital payment, stored money using an account, saved formally, and borrowed formally.
[33] Muralidharan, Karthik, Paul Niehaus, and Sandip Sukhtankar. 2016. "Payment Infrastructure and the Performance of Public Programs: Evidence from Biometric Smartcards in India." Technical paper, Bureau for Research and Economic Analysis of Development, 2016.

risks associated with lags in clearing and settlement times. Moving toward instant payment methods will virtually eliminate the need for holds.[34]

For example, one transaction account provider advertises that they can provide their customer with their paycheck two days earlier than the next bank or transaction account provider. However, this promise merely involves a particular provider memo-posting an ACH transaction before it actually has the funds settlement. (In reality, any financial institution can memo-post, but it comes with a measure of risk as it must wait until the settlement date assigned to receive the funds.) When a financial provider decides to add risk, it usually comes with the consumer paying a price that is not always tied to the service provided.

Varying user experiences plague card payments as well. Debit card payments typically feel immediate to a consumer, but challenges can arise in understanding account balances in real time. Certain factors affect the way these transactions show up in consumer accounts and, ultimately, in their account balance. Clearing and settlement behind the scenes are affected by the type of debit card—online or offline, signature or pin—and holds for certain goods, such as paying for gas at the pump.

Offering real-time information and fast access: Consumers who have habitually relied on alternative service providers for fast funds are not likely to be sufficiently motivated to adopt digital payments if their liquidity is unclear, unreliable, or underdelivered. Liquidity and funds availability together mean transparent awareness of real-time balance status along with the ability to spend no more than what you have.

When designing inclusive products and services, service providers should be aware that consumers desire clear and transparent access to information. Customer-service call centers see a significant increase in calls when consumers are awaiting a payment or looking for assurance that their funds are available to spend. Real-time account balances are critical as an incentive for cash-reliant populations to adopt digital payments.

There are potential downsides or areas of caution when innovating with instant payment technology. Products and services should be designed to meet the needs of vulnerable populations with proper guardrails that promote responsible use. Providers should have a strong knowledge-base in designing inclusive financial products and services[35] while remembering that representation matters throughout the process from ideation, testing, to product launch.

[34] Some holds are the result of suspected fraud and will need to continue to play a role in payment processing.
[35] Commonwealth. 2022 “Actionable Insights for Inclusive Product Design.” Commonwealth, March 2022.

Barrier 5—Limited acceptance of payment type by businesses

Businesses can choose the payment types they will accept. For in-person transactions, merchants can generally choose whether to accept cash, paper checks, debit cards, credit cards, and prepaid cards. Businesses who engage in e-commerce generally cannot accept cash.[36] Some states and cities require merchants to allow consumers to pay cash for in-person payments. If a customer cannot use the payment method of choice because the business does not accept it, that customer might have to pay with a less-preferred method or might not be able to complete a purchase for needed items or services. For example, some merchants don't accept cash, and some don't accept cards. This sort of discrepancy can create a problem for consumers and businesses.

As discussed in our section on cash-reliant populations unbanked consumers tend to rely heavily on cash for most purchases and bill payments.[37] Customers as well as merchants have compelling reasons for their payment choices. In the interest of an economy that works for all, ideally every merchant would accept all payment types, unless constraints such as risk, capability of payment acceptance, or another issue pose risk.

Recommendations

As a matter of public policy, explore cash-in/cash-out network ubiquity.

As a regulatory matter, collaborate with the small business programs to promote diverse payment types.

For bank and service provider activities, offer discount programs for similar types of businesses.

Cash-in/cash-out networks: Improvements to self-service checkout platforms would provide an opportunity to promote payment options, such as cash-in and cash-out services, while also addressing security concerns. The Committee expects that cash will remain a key payment method in the United States owing to its diverse population. Therefore, "payments inclusion" in the form of moving more consumers to digital payments must involve the ability of the underserved to exchange cash for digital payment applications and vice versa.

Some questions worth exploring include how to connect proprietary cash-in/cash-out networks to make them more widespread. And should there be a public option? If a merchant goes cashless, should that merchant have to post or provide options on how someone could convert cash? Recently, establishments that are going cashless—including some airports, sports stadiums, and tourist attractions—have been installing reverse ATMs, whereby

[36] In many developing countries, consumers can make cash-on-delivery payments for online orders.
[37] Greene, Claire and Oz Shy. 2023. "How US Consumers without Bank Accounts Make Payments." *Policy Hub*. Federal Reserve Bank of Atlanta, January 2023.

consumers convert cash into a prepaid debit card. However, these types of ATMs might be too costly for small merchants to have on site.

Small business program collaboration:
Given their resource constraints, small and medium-sized businesses require the most assistance with payment acceptance options. Small sellers are at a disadvantage with difficult or outdated checkouts, and innovative payment acceptance can be costly. Programs targeting these firms could include an educational focus about how to accept digital payments or programs, or they could include incentives to offer digital payments. Differing business structures also pose a challenge to delivering broad education or incentives and thus require tailored incentives. Integration with existing programs could focus on payment types associated with economic well-being and resilience. Business customers should receive education about comprehensive approaches to payment acceptance.

According to a recent report by Aite, *Delivering Value to Small Businesses*, small businesses are price sensitive but willing to pay for value.[38] They appreciate saving time, increasing convenience, and being supported in implementing operational efficiencies. If financial institutions can offer discounts and implementation packages to like-modeled businesses, they may be able to reach more business customers with innovative payment acceptance solutions. Discount extended from the community a financial institution to a business customer could assist with the expense of modernizing payments acceptance, benefiting smaller companies with fewer transactions and enabling them to offer innovative services. For small and medium-sized businesses, such merchant co-op solutions could allow members to introduce innovations such as digital payments.

Barrier 6—Security and fraud concerns

Since 2020, bank fraud has dramatically increased, and so has the banks' cost to rectify fraudulent transactions, which increased from $3.64 to $4.00 for each dollar investigated or recovered for the attacked customer, merchant, bank, or all these parties.[39] Also, the volume of criminal activities increased by 17 percent during the same period. Therefore, it is imperative to devise a comprehensive strategy that ensures that the targets of bank fraud (customers, merchants, and banks) are aware of their responsibilities. Providing education, strategies, and technologies to combat this growing trend is also of paramount importance. The following recommendations and strategies could help prevent fraudulent transactions and mitigate security and fraud.

[38] Barry, Christine. 2021. "Delivering the Experience Small Businesses Expect: Three Critical Components." *AiteNovarica*, October 2021.
[39] LexisNexis. 2022. "LexisNexis® True Cost of Fraud™ Study Financial Services and Lending Report." LexisNexis Risk Solutions, January 2022.

Recommendations

- As a matter of public policy, research into trends in payments fraud should increase.
- As a matter of regulation, regulatory policy should clarify liability among those involved in a transaction dispute as well as resolution procedures involved in a dispute.
- As a matter of bank and service provider activities, consumers should have enhanced control over their transactions.

Fraud research:
Payments fraud and financial crime evolve quickly, complicating mitigation techniques and apprehension of perpetrators. Also, reputational implications can make stakeholders reluctant to share information about fraud. Often, providers will accept liability for fraud losses, as law enforcement investigates very few cases, leaving victims with little hope for restitution. Increasing the availability and timeliness of payments fraud research would better enable banks and service providers to build stronger and more proactive fraud-mitigation techniques. Further, more effective research could better enable law enforcement as it attempts to deter and prosecute financial crimes.

Clarity on liability:
The proliferation of digital payments has changed how consumer transactions flow. Previous consumer protection programs and dispute resolution procedures do not always align with new transaction flows, so mitigating the new threats targeting the new channels takes on new importance. When liability and dispute procedures are unclear, consumer perceptions of security diminish. Risk-averse consumers will consider digital payments only when they feel confident that security controls are effectively mitigating fraud and what they can do when unexpected events such as fraud occur.

Transaction controls:
Banks and service providers should provide training that could be customized based on the recipients of the training. For customers and merchants, such training should focus on the proper methods of securing their accounts and recognizing potential attacks. This training could include a list of suggestions for identifying phishing attempts and enhancing authentication processes, since phishing and identity theft are among the most common fraud. For banks, all employees should be trained to protect systems and consumer data. In addition, banks could consider partnering with cybersecurity companies to develop training material and offer ongoing education to allow their employees to remain informed of current trends. Using established security measures, financial institutions can incorporate machine learning and data analytics to mitigate fraud.

Barrier 7—Limited financial and digital education

Many consumers lack fundamental financial knowledge. As technological innovation drives increasing levels of financial activity in the digital space, this deficit increases. Furthermore, people who use cash or other payment methods, such as checks or cards, might be uncomfortable or unfamiliar with digital payment options. As digital payments expand, helping people learn about these methods should be an important educational initiative. Most consumers, regardless of socioeconomic status, could benefit from a better understanding of innovative products and services that could enhance their financial situation. A quality educational plan could be created and implemented in a variety of ways. The following topics are recommendation for a targeted approach to helping people more comfortably and confidently embrace digital payment options.

Recommendations

As a matter of public policy, education about digital payments and data security should be part of a K-12 and collegiate curriculum encompassing overall financial literacy.

As a matter of regulation, promote campaigns and guidance about inclusive design features in digital payments.

Bank or service-provider activities should deliver targeted education via digital and nondigital channels, and these activities should be coordinated at times when consumers are making decisions on how to pay.

K-12 curriculum: New curricula in 17 states require personal finance classes for 11th and 12th grade students. In states that have not yet adopted a proposed curriculum, opportunities exist to influence curricula and provide helpful educational resources. For example, the FDIC developed a Money Smart curriculum for students that is interactive and engaging. Another resource is Next Gen Personal Finance, which provides curriculum and tracks legislative initiatives around the country.

Other educational outreach initiatives deserving exploration include:

- education through simulations
- the use of digital payment methods for programs such as lunch programs and sports programs
- mobile payment options in schools
- development and support of financial literacy clubs in schools
- inclusion of information about the availability and use of digital payments
- inclusion of financial education initiatives in higher education

Personal finance education that is engaging, informative, and useful can help people acquire new skills and become comfortable and conversant with new technology. Becoming better educated about personal finance at a young age can also help people expand their payment options, be comfortable with their chosen financial institution, and establish valuable wealth-building skills.

Campaigns on inclusive design: The CRA can be a vehicle for promoting financial inclusion through an array of educational initiatives and programs, both digital and nondigital. The goal of the CRA is to expand access to credit and financial services to lower- and moderate-income communities for financial institutions that have CRA requirements. Guidelines on how to receive CRA credits for offering inclusive deposit and payment products would help financial institutions improve their products and services

Conclusion

Until recently, initiatives in the United States that promote financial inclusion have mostly been focused on the accessibility of bank accounts, and account ownership remains a fundamental measure of financial inclusion. However, the ultimate goal is to give all consumers the ability to access, use and thrive from a variety of financial services that are the right fit for their unique needs. Transaction products and services, the way consumers make payments, are critical components in determining overall financial outcomes. To be included in digital payment options supports greater financial prosperity.

This report has aimed to bring about a better understanding of cash-reliant populations and help prevent them from being further marginalized from the economy. With this report, the Committee hopes it has made it clear that digital payments innovations can be a gateway to financial and payments inclusion. Their rapidly accelerating growth offers an increasing number of ways consumers and businesses can access better financial benefits, including early access to wages, the ability to pay bills in ways that match cash flow, and a way to create payment history that facilitates better access to credit. In short, these innovations offer consumers better tools overall for financial management, and they can improve a person's financial well-being and economic outlook. But as we have noted, digital payments can also exclude some people from the financial system, perhaps especially those who rely on cash as their primary means of conducting transactions.

At the root, some consumers remain cash reliant because of four main drivers. They have

- low or incomplete financial or digital capabilities.
- needs not represented in product design and development.
- debt, privacy and security concerns, or distrust.
- needs for cash management that are not supported by traditional systems.

The Committee hopes that the recommendations laid out in this report can spark new collaboration and deepen research to address these barriers. We also hope that this report can help bring about a new understanding of the unique needs of cash-reliant populations as well as their adoption behaviors so they are better represented in research, product development, and testing. We also hope we have made clear that cash preservation is an important aspect of payments inclusion. Consumers must be able to continue to use cash, and it must remain a widely accepted means of payment.

Education is also an important component. Stakeholders can help these populations understand the benefits of digital payments, work to help bridge the gaps, and conduct research that feeds into inclusive design.

The findings we have outlined in this report are especially meaningful because of the diversity of perspectives represented on the Committee and the research of the cross-divisional team that reflected the unique job roles of the members within the Fed. Indeed, “payments inclusion” wasn’t even in anyone’s lexicon until the Committee formed two years ago.