Federal Reserve Bank *of* Atlanta

Promoting Payments Inclusion in a Digital Payments Era

A report of the Special Committee on Payments Inclusion

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Contents

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

We thank the committee members for their time and for 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.

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Disclaimers

The views in this report are the Atlanta Fed's synthesis of various perspectives of the Special Committee on Payments Inclusion and do not reflect the perspective of any individual, company, or organization. This report does not necessarily reflect the views of the Atlanta Fed, the Federal Reserve System, or the Federal Open Market Committee.

For the purposes of this report, *instant payments* does not include the possibility of a central bank digital currency (CBDC). An instant payments service offers businesses and consumers the convenience of near-instantaneous settlement. Businesses and consumers can send and receive funds from their bank and credit union accounts in real time, any time of day and any day of the year, with immediate funds availability. While the Federal Reserve is investigating the possibilities of a CBDC, Fed chair Jerome Powell confirmed in a March 2023 hearing before the Committee on Financial Services that Congress would have to authorize the issuance of a CBDC by statute.[1] For more information about CBDC and the Fed's view on it, visit the website of the Federal Reserve Board of Governors.

The role of the Federal Reserve Bank of Atlanta's participation in the Special Committee on Payments Inclusion is to raise issues and suggest possible measures for elected policy makers, regulators, and financial institutions to consider in working toward payments inclusion.

[1] See the Federal Reserve's Semi-Annual Monetary Policy Report, Hearing before the Committee on Financial Services, US House of Representatives, March 2, 2023, p. 11, https://www.govinfo.gov/content/pkg/CHRG-118hhrg52361/pdf/CHRG-118hhrg52361.pdf.

Executive Summary

The Federal Reserve Bank of Atlanta (Atlanta Fed) is committed to helping the United States economy work for everyone, and that every family is economically resilient and sees possibilities for economic mobility and advancement. Financial tools can play an important role in advancing these goals. 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 are cash reliant, whether by choice or through other factors.

The rapid adoption of digital payments has led more and more businesses to either not accept cash or create payment acceptance processes that could be considered punitive to cash-based consumers. The percentage of the US population that lacks credit or debit cards is significant and extends beyond the "unbanked" population. The lack of a payment card or an account at a financial institution can keep this population from accessing innovative digital payment solutions. These innovations offer the possibility of greater convenience, but since a significant number of people can't access them, they also raise concerns about how they may further exclude a population already marginally attached to the economy.

What are the most important efforts we should pursue to achieve inclusion of this disconnected population?

To explore this question, the Atlanta Fed convened an interdisciplinary, multisector collaborative group called the Special Committee on Payments Inclusion (hereafter referred to as "SCOPI," or "the committee"). Over the course of just under two years, the committee reviewed existing resources and initiatives addressing financial inclusion, cash behaviors, digital payment benefits, and digital payment challenges. It used this body of knowledge as a basis for developing a set of considerations that we hope will serve as a focal point to drive ongoing work to increase financial inclusion in payments.

During its deliberations, the committee considered many valid and important issues. It ultimately settled on seeking solutions to seven barriers to financial inclusion.

1. **Stringent documentation requirements,** such as limiting the types of identification that individuals can use, can hinder access to digital payment products and services.
2. **Lack of access to broadband or smart technology, whether it's an issue of physical access or access to affordable options,** prevents consumers and businesses from using digital payments.
3. **High and unpredictable fees** deter consumers from using accounts that enable digital payment options. We note that financially excluded populations often pay high fees

when they use services outside of a transaction account, such as at check-cashing services, which can put them in a no-win situation.

4. **Lack of availability of funds or of instant settlement** can make daily cash flow management or responding to an emergency difficult and ultimately contribute to financial instability. Many cash-reliant consumers have volatile income cycles, with a strong need to remain liquid. Even banked consumers face challenges from unpredictable funds availability, depending on payment types (for example, deposited checks may be held until funds clear). This motivates the use of alternative services with higher fees.
5. **Limited acceptance of payment type by businesses** can exclude those who rely on other forms of payment. Consumers may be forced to use a nonpreferred payment type or to do business elsewhere.
6. **Security and fraud concerns** can cause consumers to avoid adopting new digital payment technology. Whether such concerns are based on experience or perception, some consumers prefer to stay with familiar payment types, even if they are not ideal, rather than feel like they are taking a risk with an unknown payment type.
7. **Limited financial and digital education** hinders some consumers from fully appreciating the benefits of being financially and digitally included. Financial and digital capabilities, including financial literacy tools, help people both understand risks and rewards and make prudent decisions.

In settling on these seven barriers, the committee considered both the measurability and feasibility of factors to consider as well as the scale of impact if success were to be achieved. The committee selected these barriers because they feel they score highly along both dimensions.

For each barrier, the committee identified distinct steps that policy makers, regulators, and financial institutions should consider undertaking to improve financial inclusion. The following table summarizes these considerations.

Barrier 1: Stringent documentation requirements		
Public policy makers	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 for financial institutions 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 policy makers	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.	Explore options to provide low-cost broadband options or partner with telecoms to offer smart technology discounts.
Barrier 3: High and unpredictable fees		
Public policy makers	Regulators	Financial institutions
Conduct education campaigns to increase awareness of free and low-cost offerings for financial services.	Encourage low-balance notifications and review regulatory requirements to reduce high or unpredictable fees.	Offer tailored products such as Bank On programs and provide ongoing support to help people understand fee structures. Contribute to data sharing to measure success of such programs.
Barrier 4: Lack of availability of funds or of instant settlement		
Public policy makers	Regulators	Financial institutions
Offer instant payment channels, through which government benefits payments (to or from government agencies) are available and inform recipients of the option to establish accounts that can accept instant payments.	Encourage instant payment systems as a way to offer consistent funds availability and standard information about transactions.	Offer instant payments to businesses and consumers.
Barrier 5: Limited acceptance of payment type by businesses		
Public policy makers	Regulators	Financial institutions
Explore making networks that allow consumers to exchange cash for digital value or vice versa (cash in/cash-out networks) ubiquitous.	Collaborate with small business programs to promote diverse payment types.	Offer payment processing discount programs for similar cohorts of businesses.
Barrier 6: Security and fraud concerns		
Public policy makers	Regulators	Financial institutions
Increase research in payments fraud trends.	Provide clarity on liability among parties to a transaction and on dispute-resolution procedures.	Enhance transaction controls for consumers.
Barrier 7: Limited financial and digital education		
Public policy makers	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.

Background

In addition to its role in formulating monetary policy, the Federal Reserve helps maintain 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.[2]

Competition motivates the Fed and other service providers to process payments as efficiently as possible and continually improve the quality of the services offered.[3] 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.

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 all Americans, including low- and moderate-income and financially vulnerable people, families, and communities. This involves maintaining cash as a payment option along with making digital payment methods available for low- and moderate-income people.

The bank's focus on this makes sense for two reasons. First, the Atlanta Fed's district is a major hub for financial technology companies (fintechs) and payments processing. According to the Technology Association of Georgia, 210 fintechs make their home in Georgia, employing approximately 42,000 people. The 12 public companies headquartered in the state have an annual revenue of $49 billion and a market capitalization of $233 billion.[4] Second, the Atlanta Fed has undertaken efforts to work on issues related to economic mobility and resilience.[5] This strategy helps the bank fulfill its dual mandate to pursue maximum employment and price stability. As part of this work, the Atlanta Fed has sought to understand why some people and places thrive economically and bounce back from economic shocks while others struggle.

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[2] In some countries, payment authorities are purposely kept separate from the 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 nonbank service providers. For example, see https://payments.ca/ for Canada and https://www.psr.org.uk/ for the United Kingdom.

[3] 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.

[4] Don Campbell and Glen Sarvady, *Impact Report 2022–2023,* Technology Association of Georgia, 2022, https://www.tagonline.org/wp-content/uploads/2023/04/TAG-2022-Impact-Report.pdf.

[5] For more information on these efforts, visit the Atlanta Fed's website.

The Atlanta Fed recognizes that financial inclusion can promote economic mobility and resilience, which can be better achieved when families and individuals are able to access and use financial services such as credit products and financial management tools. When used responsibly, these products and tools can enhance a consumer's credit profile and thus make it easier to successfully apply for employment or loan. Many loans, such as mortgages and student loans, represent investments that can help families and individuals build wealth.

Given that accounts at financial institutions are typically an entry point for such financial services and most households today have an account, prospects for economic mobility and resilience should seem bright since most US households today have an account with a financial institution. Yet upward mobility in the United States has fallen sharply over the past half-century[6] and income inequality in the United States is rising.[7] This raises some important questions. If most people in the United States have an account, why are some households underserved[8]—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."[9] This paper looks at how the growth in digital payments innovations is bringing more benefits to consumers and businesses. Many consumers can now receive early access to wages, pay bills in ways that match their cash flow, create a payment history that facilitates access to credit, and make use of better tools overall for financial management. Many of these innovations can improve a person's financial well-being and economic outlook.

The report also points out that, in addition to offering these benefits, digital payments can exclude groups of people from the financial system. These potentially excluded groups include US consumers who are cash reliant and those who are financially vulnerable. Together, these

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[6] Raj Chetty, Nathaniel Hendren, David Grusky, Maximilian Hell, Robert Manduca, and Jimmy Narang, "The Fading American Dream: Trends in Absolute Income Mobility Since 1940," National Bureau of Economic Research Working Paper Series 22910, December 2016, https://doi.org/10.3386/w22910.
[7] Juliana Menasce Horowitz, Ruth Igielnik, and Rakesh Kochhar, "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, https://www.pewresearch.org/social-trends/2020/01/09/most-americans-say-there-is-too-much-economic-inequality-in-the-u-s-but-fewer-than-half-call-it-a-top-priority/.
[8] In this paper, we define an *underserved* consumer or household as one who is unbanked or underbanked.
[9] Raphael Bostic, Shari Bower, Oz Shy, Larry Wall, and Jessica Washington, 2020, "Shifting the Focus: Digital Payments and the Path to Financial Inclusion," Federal Reserve Bank of Atlanta, September 2020, https://www.atlantafed.org/-/media/documents/promoting-safer-payments-innovation/publications/2020/09/30/shifting-the-focus-digital-payments-and-the-path-to-financial-inclusion/Shifting-the-Focus-Digital-Payments-and-the-Path-to-Financial-Inclusion.pdf.

groups comprise a notable portion of consumers.[10] So with digitalization, vulnerable populations may become further marginalized, and some may be blocked from accessing opportunities available to many others.

[10] Kelsey Coyle, Laura Kim, and Shaun O'Brien, "2021 Findings from the Diary of Consumer Payment Choice," *Fed Notes*, Federal Reserve Bank of San Francisco, May 2021, https://www.frbsf.org/cash/publications/fed-notes/2021/may/2021-findings-from-the-diary-of-consumer-payment-choice/.

The Special Committee on Payments Inclusion

The Atlanta Fed created the Special Committee on Payments Inclusion in 2021 as an interdisciplinary, multi-sector collaborative group whose objective was to promote payments inclusion—in other words, the committee aimed to play a pivotal role in supporting safe and inclusive payments innovation that advances economic mobility and resilience. Members include leaders in innovation, payments, and financial inclusion whose unique knowledge and skills in payments complements the expertise at the Atlanta Fed.

The committee focused on researching the reasons that some consumers do not adopt digital payment services and looked at consumers' payments behavior. They explored the preferences and concerns of those consumers and identified the barriers to greater financial inclusion. This effort led the committee to identify opportunities and suggest measures to consider for lowering these barriers.

The committee sought to:

- Understand and identify cash-reliant populations.
- Better understand the needs of cash-reliant consumer segments.
- Identify the root causes for why cash-reliant consumers either choose not to adopt digital payments or are unable to adopt certain digital payment options.
- Identify the desired outcomes in payment scenarios that all users of financial services should experience.
- Suggest measures for the industry and policy makers to consider in moving toward payments inclusion.

In its first year, the committee reviewed existing resources and initiatives addressing financial inclusion, cash behaviors, and digital payment benefits and adoption challenges. The committee also reviewed perspectives on these issues gained from interviews that supporting staff conducted with other external partners active in digital payments. They also examined existing payment inclusion gaps in the US market. The experience, expertise, and full engagement of the committee's diverse membership helped generate profound insights from this foundation of accumulated information.

The remainder of the committee's work involved developing a set of considerations that might serve as a focal point to drive ongoing work to increase financial inclusion in payments.

Based on their expertise, members of the committee were divided into three workstreams. These workstreams focused on:

- *Cash-reliant consumer research,* to identify who is reliant on cash, what their core needs are, and, why they prefer to transact in cash

- *Financial institution and fintech perspectives on promoting financial inclusion*, to better understand the current payments landscape and remaining challenges to widening the path to inclusion
- *Digital payment benefits and adoption,* to better understand specific benefits of digital payments that could appeal to cash-based consumers as well as the issues leading to low rates of transition to digital payment vehicles

The considerations contained in this report emerged from the work in these three workstreams.

The remainder of this report details the work of the committee.

Identifying and Understanding Cash-Reliant Consumers

To develop considerations that will meaningfully advance payments inclusion, it is useful to better understand the payment preferences and behaviors of those at risk of being excluded as digital payment methods become more prevalent. This section focuses on one large group of such people: those who use cash primarily as their means of transaction. In this section, we briefly review who uses cash and why they choose cash over other forms of payment.

The cash-reliant segments

Even in today's increasingly digital world, cash remains a key payment method many consumers use for day-to-day financial transactions. Cash is most frequently used to pay for utility bills and everyday expenses such as gas, groceries, meals, and tips.

An Atlanta Fed report[11] cited studies estimating that almost 6 million households in the United States use cash as their primary means of exchange. Surveys and other research have identified several groups for which the share of people who are cash reliant is relatively high.

The unbanked

As noted earlier, an account with a financial institution is typically required to access digital payment vehicles. Consequently, those lacking an account are more likely to have to rely on cash for payments and transactions. The Federal Deposit Insurance Corporation's (FDIC) 2021 *FDIC Survey of Unbanked and Underbanked Households* found that an estimated 4.5 percent of US households were unbanked. An *unbanked* household is defined as not having a checking or savings account at a bank or credit union.[12] While this fraction is low by historical standards, it still represents approximately 5.9 million households.

Unbanked rates are much higher for households headed by single mothers: 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 households, Black and Hispanic households, and households headed by working-age adults with a disability.

Senior citizens

The unbanked rate among households age 65 and older is only 2.7 percent, the lowest of any age group, which means that most seniors are positioned to use digital payment vehicles and thus at lower risk for being financially excluded. Despite that, many seniors carry and use cash. This may in part be because seniors could be less digitally savvy, have limited access to

[11] Bostic et al., "Shifting the Focus," 2020.
[12] Federal Deposit Insurance Corporation (FDIC), *2021 FDIC National Survey of Unbanked and Underbanked Households*, October 2022, https://www.fdic.gov/analysis/household-survey/index.html.

technology, or just have a personal preference for cash. It can be more difficult to learn new technical skills later in life. Also, health conditions can make it harder to use some technologies. For example, those with poor eyesight might struggle to use a card reader and those with arthritis could have a tougher time using a smartphone.

Finally, many seniors have memories associated with more difficult economic times during which cash offered security and stability. As a consequence, they may have come to rely on using cash for much of their lives. For these people, cash may be viewed as easier to use and a more convenient budgeting tool.

Younger adults

Findings of the 2022 Diary of Consumer Payment Choice show that young adults are the second-highest users of cash.[13] 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 2022.

Young adults may be heavy users of cash in part because they wish to lay a foundation of efficient budgeting to stay out of debt. Members of this group tend to have lower incomes, as they will often be new entrants in the workforce and still learning how to pay bills they haven't had in the past. They also may not be able to obtain accounts that enable digital payments, as their more limited credit history could limit their access to credit.

Vulnerable households

While it is customary to look at factors like access, adoption, and choice when considering cash usage, it is also true that cash is critically important for a number of vulnerable populations.[14] In its guidance for firms on the fair treatment of vulnerable customers, the United Kingdom's Financial Conduct Authority (FCA) established a definition of a vulnerable person: "…someone who, due to their personal circumstances, is especially susceptible to harm, particularly when a firm is not acting with appropriate levels of care."[15]

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[13] Coyle, Kim, and O'Brien, "2022 Findings," 2022.
[14] Julie Hogan, "Financial Inclusion Is Impossible without Cash," *BankThink*, American Banker, September 29, 2021, https://www.americanbanker.com/opinion/dear-banks-cash-is-still-king-for-many-underbanked-americans.
[15] Financial Conduct Authority (FCA), "Finalised Guidance FG21/1 Guidance for Firms on the Fair Treatment of Vulnerable Customers," February 2021, p. 3, https://www.fca.org.uk/publication/finalised-guidance/fg21-1.pdf. The FCA is the United Kingdom's conduct regulator for around 50,000 financial services firms and financial markets and the prudential regulator for about 48,000 firms.

The FCA builds on this expansive definition by identifying characteristics associated with four key drivers of vulnerability: poor or limiting health conditions, sudden negative or stress-inducing life events, low financial or emotional resilience, and low knowledge of financial management and low digital acumen. The table below identifies groups of people who might be susceptible to these drivers.

Poor or limiting health conditions	Sudden negative or stress-inducing life events	Low financial or emotional resilience	Low knowledge of financial management and low digital acumen
Those with: • Physical or cognitive disabilities • Severe or long-term illness • Hearing or visual impairment • Mental health stress • Drug or alcohol addiction • Low mental capacity	Those who: • Have retired • Are mourning a loved one • Have lost a job or large sum of money • Had a relationship breakdown • Suffer from domestic abuse • Care for elderly or infirm relatives	Those with: • Inadequate income • Erratic income • Large debt relative to income • Low savings • Low emotional resilience	Those with: • Low financial management confidence and skills • Poor literacy or numeracy skills • Poor English (local language) skills • Limited digital skills • Learning difficulties • Weak or nonexistent support systems

Source: Table adapted from the Financial Conduct Authority[16]

One key takeaway from this table is that there are many channels through which someone can become vulnerable, so financial inclusion can be a looming issue for many more people than may be accounted for. Another implication is that many who are financially included today could become financially excluded tomorrow as their life circumstances change. This broader potential scope of financial exclusion should increase its salience for both policy makers and practitioners.

The notion of financial vulnerability is not limited to the United Kingdom. Policy makers and researchers elsewhere have also focused on this. For example, a 2022 study of United States consumers found differences in financial capability among demographic groups.[17] According to

[16] Financial Conduct Authority. 2021. "Finalised Guidance FG21/1 Guidance for Firms on the Fair Treatment of Vulnerable Customers." Financial Conduct Authority, February 2021, page 10 FCA. 2021, p. 10.
[17] Judy T. Lin, Christopher Bumcrot, Gary Mottola, Olivia Valdes, Robert Ganem, Christine Kieffer, Gerri Walsh, and Annamaria Lusardi, *Financial Capability in the United States: Highlights from the FINRA Foundation National Financial Capability Study*, FINRA Foundation, July 2022, https://finrafoundation.org/sites/finrafoundation/files/NFCS-Report-Fifth-Edition-July-2022.pdf.

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."

Core needs

An FDIC study identified the following seven core practical and intangible needs that underserved[18] consumers require from financial services.[19]

- *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.
- *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).

Evidence from many sources shows that cash satisfies many of these needs for underserved consumers. People who use cash highlight the fact that transactions involving cash are effectively an instantaneous final settlement and offer instant access to money. There are no

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[18] Underserved consumers are those whom the FDIC defines as either unbanked or underbanked. Unbanked households are those that do not have an account at an insured banking institution. Underbanked households have an account but also obtain financial services from nonbank alternative financial services providers such as check cashers or payday lenders. See FDIC, *2021 FDIC National Survey*, July 2023.

[19] Susan Burhouse, Benjamin Navarro, and Yazmin Osaki, *Opportunities for Mobile Financial Services to Engage Underserved Consumers Qualitative Research Findings*, Federal Deposit Insurance Corporation, May 2016, https://www.fdic.gov/consumers/community/mobile/mfs_qualitative_research_report.pdf.

holds on funds, as there can be with check transactions. This is closely related to another benefit that cash users highlight—namely, that using cash makes control of spending and budgeting easier. Users know cash balances in real time, which is especially useful for those with low incomes or liquidity constraints.[20]

The anonymity and lack of any personally identifying transaction record when cash is used is valued, as is its directness in that there is no reliance on third parties to complete transactions. Cash users further cite low infrastructure needs, as cash payments occur offline and do not require electricity, an internet connection, or cellular service. This characteristic of cash payments is particularly important after natural disasters or during economic and political crises. Finally, some point to social norms and habit formation as key drivers of cash use, given that consumers' peers can influence their perceptions and payment behavior.[21]

As we all know, tastes vary across consumers. In the current context, this means that some of the characteristics viewed as benefits for some are seen as negative for others. For example, an FDIC qualitative research study found that some people believe that the lack of a paper trail associated with cash makes proving income or payment more difficult. This study similarly found that some feel money management and planning is easier in noncash settings (in an account at a financial institution).

[20] Lola Hernandez, Nicole Jonker, and Anneke Kosse, "Cash versus Debit Card: The Role of Budget Control," *The Journal of Consumer Affairs* 51: no. 1 (Spring 2017), https://www.jstor.org/stable/44154766.

[21] Charles M. Kahn, José M. Liñares-Zegarra, and Joanna Stavins, "Are There Social Spillovers in Consumers' Security Assessments of Payment Instruments?" (Research Department Working Paper Series 16–19, Federal Reserve Bank of Boston, September 21, 2016), https://www.bostonfed.org/publications/research-department-working-paper/2016/are-there-social-spillovers-in-consumers-security-assessments-of-payment-instruments.aspx.

Financial institution and fintech perspectives

Financial institutions and nonbank fintech firms must be an essential part of any effort to increase financial inclusion. These companies play a key role in providing accessible and safe financial services.

For many households, financial institutions, such as banks and credit unions, are a primary conduit for financial services including savings and lending products that, when used appropriately, lead to increased creditworthiness for consumers. In terms of safety, because financial institutions are subject to regulation, these entities must comply with various safety and soundness guidelines, consumer protection laws, and anti–money laundering regulations. Moreover, consumers and businesses with accounts at depository institutions that are members of the FDIC are covered by deposit insurance up to a threshold amount, and thus have lower risk of losing their funds.[22] As a gateway to other financial products, financial institution accounts promote economic well-being as they inherently enable digital payments while connecting consumers to other products and services. In recent years, financial institutions have increasingly enabled access to an array of digital financial products.

The products of financial technology, or fintech, firms typically leverage innovations in technology to create new vehicles and channels by which families and businesses can access and use financial products and services. Some fintech products become engines for operational functions that help drive the provision of financial products and services by financial institutions. In other cases, the new technologies deliver financial services directly to end users.

In many instances, fintechs and traditional banking institutions can collaborate in ways that can benefit consumers as well as each other. Fintech firms have historically been more agile than traditional banking institutions, and their innovations can improve efficiency and reduce the complexity of financial institution core operations and front-end, client-facing platforms. At the same time, traditional banks can offer fintechs well-established economies of scale, established networks, and diversified product sets that can help them be more effective and resilient.

In other instances, however, there can be tension between these two groups of institutions. Fintech products can directly compete with products that financial institutions offer. Because fintech firms are less regulated than financial institutions, some in banking feel they have an unfair competitive advantage and thus are positioned to claim market share and revenue at the

[22] The current FDIC deposit amount for an account holder is $250,000. See the FDIC's frequently asked questions: https://www.fdic.gov/resources/deposit-insurance/faq/.

expense of banks. Further, the lighter regulation could result in some fintech products being less safe than those subject to strict safety and soundness and other regulatory requirements.

All of this notwithstanding, over the years, both financial institutions and fintech firms have contributed to increasing financial inclusion in several ways. As we will discuss, these have produced important gains. However, more work remains if we are to achieve further progress in this area.

Despite these and other efforts by financial institutions and fintech firms, risk of financial exclusion still exists for households and businesses. This suggests more can be done.

The World Economic Forum held a roundtable series focused on fostering partnerships that advance inclusive digital financial services.[23] 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. Also, fintech providers often offer a single product so cannot distribute the cost of complying with regulatory requirements across a full menu of services.
- *Promoting digital and financial literacy.* Some consumers lack general financial literacy. 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. These components might include, in addition to agile core systems, data standards and protocols and a robust network for offering mobile and broadband capability.

Regarding the topic of infrastructure, existing, or legacy, frameworks that are used for new digital product offerings can hurt usability. For example, a fintech that must use a legacy system may have to settle for a slower movement of money than if it were able to access an instantaneous or omnichannel funds processing. The limited data that traditional credit

[23] Ben Weisman, Bryan Zheng Zhang, Hunter Sims, Herman Smit, and Drew Propson, "How to Beat the 3 Challenges to Building Inclusive Digital Financial Services," World Economic Forum, December 21, 2021, https://www.weforum.org/agenda/2021/12/3-challenges-building-inclusive-digital-financial-services/.

reporting agencies sometimes offer and difficulties in verifying identities of people opening accounts can also inhibit usability.

There is a high degree of coordination that payment systems require. Third-party risk management must also apply to a variety of go-to-market business models employed by fintechs. For these reasons, some banks are reluctant to invest in fintech advancements that could directly benefit underserved communities. Some fintechs are seeking to fill this gap, but the effort is sometimes a transactional relationship between the fintech and the consumer, one 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. But when fintechs attract investments in their advanced digital payment apps—especially those suited to underserved populations—financial institutions could benefit because their association with these fintechs may help them at least partly meet their Community Reinvestment Act requirements. [24] Because of this possibility, we may see better outcomes for inclusion when cutting-edge payment products attract new customers and connect them to applications that can improve economic well-being.

While having a bank account enables access to digital payments, poor product or service design for these products can be why 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 (in sending or receiving payments) that businesses offer
- Functionality of products or services only on a specific device or operating system
- Documentation requirements, which can deter users from opening the transaction accounts needed to fund digital payments or acquire a digital payment product
- Inability to use cash-in/cash-out to fund payments and convert received payments into cash
- Lack of immediate settlement options or options that otherwise don’t align with income, spending expectations, or schedules
- Lack of access to broadband or smart technology
- Physical or cognitive disabilities that the product or service design cannot support
- Limited access to credit, preventing access to owning a transaction account or obtaining a credit line to use with a digital payment

[24] 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.

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Financial institutions can address some of the poor design features listed above either in house or by employing the services of a third party to increase technological efficiency.[25] For example, smaller institutions typically do not have staff dedicated to innovative inclusion strategies, and financial institutions that rely heavily on legacy systems may find it more difficult to adopt new technology. A fintech could fill these gaps.

[25] 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, https://www.federalreserve.gov/publications/community-bank-access-to-innovation-through-partnerships.htm.

Barriers and considerations

This section describes the seven barriers to payments inclusion that we listed in the executive summary. In each subsection, we identify the limitation, offer considerations to policy makers, regulators, financial institutions, and service providers, and discuss considerations. We intend this section to be the first step to future stakeholder opportunities and collaborations.

Barrier 1: Stringent documentation requirements

Know your customer (KYC) is a process financial institutions use to verify an individual customer's identity and risk factors. KYC compliance programs must adhere to laws and regulations such as the Bank Secrecy Act/Anti-Money Laundering and the Patriot Act. KYC standards help protect financial institutions, service providers, and consumers from fraud, money laundering, terrorist financing, and other criminal activities.

Proof of identity and address during KYC requires individuals to provide sufficient documentation to a financial institution or service provider upon account opening and periodically throughout the relationship. For some people, stringent documentation requirements can be a barrier to opening transaction accounts and using digital payment products. The particular documents that satisfy KYC requirements can vary, but in the United States, most regulators and financial institutions or service providers accept a driver's license, passport, or state-issued identification card.

Stringent documentation requirements are, in fact, designed to safeguard the financial system by being exclusive. By making it more difficult to open accounts, financial institutions are working to weed out the lawbreakers. But these rules can systemically weed out other people who are not the intended targets. As the Aspen Institute describes in a recent report about financial inclusion,[26] the lack of a government-issued ID or a permanent address disproportionately affects specific populations such as immigrants and refugees of all races, people with very low incomes, people experiencing homelessness, the formerly incarcerated, communities of color, youth, and the elderly.

Other KYC processes pose other obstacles, including compliance costs, which may be passed on to customers and privacy concerns related to the information customers must disclose.

Some other countries have pilot programs that could be guides for enhancing US KYC programs. However, any change in procedure must consider the balance between the risk of

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[26] Sheida Elmi, Sohrab Kohli, and Bianca Lopez, "The Price of Entry: Banking in America," Aspen Institute, February 2023, https://www.aspeninstitute.org/publications/the-price-of-entry-banking-in-america/.

creating new mechanisms for carrying out money laundering and financial crimes and the benefits of improving financial inclusion.

Consideration 1A: Policy makers could research the possible methods of digital identification and other innovations that will increase the availability of recognized documents.

India offers an example of a centralized digital identification system. In 2009, the country created a unique national identity system using the Aadhaar card system, which allows people to use biometric data to create a digital ID. The Aadhaar system, which does not collect data on nationality or residency status, is accessible to anyone in India.[27] 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 in India.

To create an ID, a person visits an enrollment center, submits an identification document and biometric data, and receives a unique 12-digit identification number. That number allows the enrollee to open a bank account and gain access to public documents and services like tax payments, government subsidies, and retail payments.

To date, about 90 percent of India's population have signed up for a digital identity. The Aadhaar database has helped to drastically reduce fraud and fake identities as verifications take place using the same single source, which makes detection simpler.

Consideration 1B: Regulators could research the feasibility of offering a universal transaction account application and explore enhancements to KYC requirements to allow services to be modified and tiered according to available documentation.

Mexico offers an example of KYC requirements that have been modified to be simpler for some specific transactions, products, and financial services. In August 2011, Mexico implemented a risk-based, tiered approach to KYC for the opening of low-value accounts at credit institutions. Documentation requirements and associated processes follow a protocol prescribed by the risk tier of a product or service.

The country identified three levels of simplified accounts in addition to a traditional account for the tiered requirements. The stringency of documentation requirements increases as restrictions on transactions and channels ease.

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[27] To be eligible, an individual has to have resided in India for at least 182 days in the last 12 months. See https://id4d.worldbank.org/guide/eligibility.

- 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, and no physical documentation. We should note that levels 1 and 2 both 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 than is required for opening the levels 1 and 2 accounts.

This tiered approach has been beneficial because it resulted in banks having more flexibility in how they design different products and incorporate them into their suite of deposit accounts. Additionally, it provided more flexibility for commercial banks that participate in distributing government payments. Finally, it enabled new products, many designed around payment instruments, which would not have been possible without the support of Mexico's regulatory apparatus.

Consideration 1C: Financial institutions and service providers could collaborate with regulators to share information regarding realized fraud or security risks related to documentation issues, and this information could inform policy decisions.

The ultimate objective of KYC programs is to prevent bad actors from using the financial system for fraudulent activity. Other fraud-prevention techniques can help us understand the effectiveness of KYC programs and related documentation requirements. Collaboration across the industry can improve fraud prevention measures by creating awareness and mitigating actions.

One approach is to mandate that financial institutions and service providers follow standards in collecting and reporting fraud data. The United Kingdom offers an example of such a strategy. In 2023, the Payments Systems Regulator (PSR) directed significant payment service providers to collect and report on fraud data. The directive initially requires reporting on 95 percent of the UK consumer accounts that are sent through the country's Faster Payments System. Various metrics will be collected to evaluate the effectiveness of this program, including the proportion of scammed customers left with a loss, sending/receiving scam rates, and the largest account recipients or beneficiaries of scammed payments. The PSR will work with stakeholders to consider future channels for data collection and origination. Furthermore, they will track reimbursement levels and will consider proposals for cost sharing structures.

The United States has pursued a different approach. The Federal Reserve manages a public site at fedpaymentsimprovement.org to facilitate voluntary data sharing across the payments industry to better understand fraud related to identity issues. The Federal Reserve also meets with financial institutions and service providers to work on possible solutions for types of fraud, with the outcome of these meetings being the creation of publications and other resources for the industry. One such collaborative effort focused on synthetic identity fraud, which they define as the use of a combination of personally identifiable information to fabricate a person or entity to commit a dishonest act for personal or financial gain. The work resulted in the release of a Synthetic Identity Fraud Mitigation Toolkit to educate financial institutions, businesses, and individuals.

Barrier 2: Lack of access to broadband or smart technology

Digital payments are transacted over internet or cellular networks and require hardware to connect. A Pew Research Center study shows that although 85 percent of US households have smartphones, ownership rates vary among demographics. Specifically, while smartphone ownership rates were similar across racial groups, they were lower across other categories such as households that are older, less educated, and with lower income. The study shows that smartphone ownership drops to 61 percent for the 65+ age group, 75 percent for education levels of high school or less, and 76 percent for those earning less than $30,000. [28] Many of these characteristics match those of cash-reliant populations. Cash-reliant populations who lack access to or are unable to afford broadband and technology, may continue to remain excluded from digital services.

Consideration 2A: Policy makers could support initiatives to increase public access to broadband internet and cellular coverage in underserved locations.

Policy makers have the influence to support initiatives that can increase accessibility in the United States. The House Financial Services Committee has created a subcommittee on digital assets, financial technology, and inclusion. The subcommittee will focus on 1) developing policies that promote financial technology to reach underserved communities; 2) identifying best practices and policies that continue to strengthen diversity and inclusion in the digital asset ecosystem; and 3) providing clear rules of the road among federal regulators for the digital asset ecosystem. Additionally, the Infrastructure Investment and Jobs Act[29] includes title provisions for funding infrastructure projects such as broadband connectivity and affordability. The bill establishes measures to promote broadband deployment in unserved and underserved areas through specified projects (for example, connecting libraries and other community anchor institutions, collecting data, and conducting broadband mapping, and installing internet infrastructure). The broadband mapping will bring awareness to which geographic areas need infrastructure.

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[28] Pew Research Center, “Mobile Fact Sheet,” April 2021, https://www.pewresearch.org/internet/fact-sheet/mobile/.

[29] See https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/02/updated-fact-sheet-bipartisan-infrastructure-investment-and-jobs-act/.

Consideration 2B: Financial 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.

The US Census Bureau and the National Telecommunications and Information Administration have created a public dashboard that depicts broadband access across the United States. The dashboard resulted from the Act and expands broadband to all US households. The dashboard is designed to show how changes in broadband availability and adoption could impact local economies. For example, in Georgia, it shows that counties with a lower percentage of broadband subscriptions typically also fall in the lowest income bracket, and also have lower levels of education. [30] Some indicators are available at the census tract level. The dashboard will be updated annually. Resources such as these will help make policy makers aware of underserved communities.

Consideration 2C: Financial institutions and service providers could explore options on providing low-cost broadband options or partner with telecoms to offer smart technology discounts.

The Infrastructure Investment and Jobs Act revises and makes permanent the Affordable Connectivity Benefit Program established to reimburse broadband providers for costs associated with discounting broadband service for certain households during the COVID-19 emergency period. Participating providers must allow recipient households to apply the affordable connectivity benefit to any of its internet service offerings. Such providers must carry out public awareness campaigns in service areas to highlight the existence of the program and the value and benefits of broadband.

Barrier 3: High or unpredictable fees

High or unpredictable fees, another barrier to digital and banking adoption, can cause budgeting issues, whether related to a household's pay level, pay variability, or the method by which the household receives payment. According to an FDIC study, high and unpredictable bank fees were among the top five reasons underserved consumers cite for remaining unbanked.[31] The effects on the economy and the individual are clear: these fees erode

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[30] Lauren Bowers and Suzanne McArdle, "New ACCESS BROADBAND Dashboard Helps Assess How Broadband Availability and Adoption Impact Local Economies," United States Census Bureau, February 28, 2023, https://www.census.gov/library/stories/2023/02/access-broadband-impact-on-communities.html.

[31] Mark Kutzbach Joyce Northwood, and Jeffrey Weinstein, *FDIC National Survey of Unbanked and Underbanked Households*, Federal Deposit Insurance Corporation, 2021, https://www.fdic.gov/analysis/household-survey/2021report.pdf.

spending power and do the most damage to people with the lowest incomes. Unpredictable fees also discourage the use of new products and technologies.

In addition to fees associated with banking, being unbanked can be expensive. Consumers may have to 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 safe and affordable account options to this population, while ensuring that they do not face high or unpredictable fees, can benefit not only the individuals but also the local economy.

Consideration 3A: Policy makers could produce education campaigns to increase consumer awareness of free and low-cost offerings.

As of the publication of this paper, 17 states have mandated the completion of a personal finance course as a high school graduation requirement. This means that upon full implementation, 40.5 percent of US public high school students will have guaranteed access to a personal finance course.[32] As other states begin to follow, policy makers' next steps could include campaigns to highlight financial institutions that offer low- or no-fee checking and savings accounts. By partnering with institutions like the FDIC, Bank On, the American Bankers Association, and the Independent Community Bankers of America to create awareness campaigns, the likelihood increases that adults of all ages will be able to find financial instruments that meet their banking needs. These instruments could also help them avoid losing income to fees attached to accounts or other expenses like money orders and bill payment. The FDIC has piloted two "Get Banked" initiatives in various metropolitan statistical areas (MSA), with informative radio ads and social media infographics driving traffic to the FDIC's Get Banked web page. In 2021 the web page received over 599,000 views, largely from the targeted MSAs of Atlanta and Houston. The FDIC showed that while other factors, including an increasing number of institutions offering low- or no-fee accounts, contributed to its success, the 2021 initiative saw a 2.6 percent decrease in the unbanked population of the Atlanta MSA and a 2.2 percent decrease in the Houston MSA. The FDIC expects the 2022 campaign will show similar results, again demonstrating the value of this low-cost investment in public awareness.

Consideration 3B : Regulators could encourage low-balance notifications and review regulatory requirements to reduce high or unpredictable fees.

According to the United States Office of Information and Regulatory Affairs, the Consumer Financial Protection Bureau (CFPB) is currently in a pre-rule stage for possible changes to overdraft fees and fees for insufficient funds. Financial institutions offer various types of

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[32] Next Gen Personal Finance, *NGPF's 2023 State of Financial Education Report*," March 2023, https://d3f7q2msm2165u.cloudfront.net/aaa-content/user/files/Files/NGPF_AnnualReport_2023.pdf.

overdraft services, some of which are subject to Regulation Z, which requires truth in lending disclosures. Application depends on whether overdraft fees are considered finance charges. Since Regulation Z's creation in 1969, significant change in overdraft services has come about, including how accounts can be overdrawn and how financial institutions determine whether to advance funds to pay the overdrawn amount. The CFPB is considering whether to propose amendments to Regulation Z with respect to these special rules.

The CFPB is also reviewing fees for insufficient funds. Consumers using deposit accounts may have transactions that exceed their account balances. Some depository institutions will pay that transaction, resulting in an overdraft, but in many situations the depository institution will decline to pay the transaction and charge the consumer a "nonsufficient fund" (NSF) fee. Until recently, NSF fees were a significant source of fee revenue from deposit accounts for depository institutions. However, recently, some financial institutions have voluntarily stopped charging such fees. The CFPB is considering new rules regarding these fees.

In a separate initiative, the CFPB is focused on reducing what they call "junk fees." These include service fees that may be undisclosed or unavoidable to the customer. Examples are high late fees, returned deposits, transaction fees, and overdraft fees. To address this, the CFPB has issued rules, guidance, enforcement, and supervisory actions. They are also working with the Competition Council, which the Federal Trade Commission is part of, which issued an advance notice of proposed rulemaking on junk fees. They are seeking comment on harms from junk fees and ways to protect consumers.

Consideration 3C: Financial institutions and service providers could offer tailored products or programs and provide ongoing support for understanding fee structures. Contribute to data sharing to measure the success of such programs.

The Bank On program was established by the Cities for Financial Empowerment (CFE) Fund to create a set of standards that financial institutions and their service providers can use to offer safe, low-cost transactional products. Core features include checking, direct deposit, debit card, and online/bill pay capability where available. Other features are low minimum opening deposit requirements, low monthly fees, and zero overdraft, activation, and low balance fees. Strongly recommended features include acceptance of alternative identification such as municipal and consular-issued IDs and immediate funds availability for known customers cashing government checks, payroll checks, or other checks from that financial institution. Financial institutions can apply for a free national account certification. Many of the nation's largest core service providers have committed to simplifying the process to create Bank On products. Financial institutions are encouraged to submit data to the Bank On National Data Hub, which is managed by the Federal Reserve Bank of St. Louis and the Cities for Financial Empowerment Fund.

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

Delayed access to funds is a significant barrier to digital payments adoption. Cash is immediately available when exchanged for payment, thus for consumers who have sensitive cash-management or liquidity needs, cash is attractive. Cash is also useful for consumers who have low financial or digital capabilities because of 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.

Most noncash payments require time for financial institutions to verify that purchasers have enough money in their bank accounts to pay for a product or service and then transfer that money into the bank accounts of the service providers (sellers). Instant payments are a new way to clear and settle payment transactions, virtually eliminating that delay.[33]

A growing number of financial institutions and service provides are adopting instant payment networks. Instant payments platform capabilities extend beyond interbank clearing and settlement: they allow people and businesses to send and receive payments within seconds at any time of the day, on any day of the week, on any day of the year. The receiver of an instant payment can use those funds right away. This immediacy of settlement is what differentiates instant payments from traditional electronic retail payment methods, including those that involve credit and debit cards and some digital applications such as wallets and cash apps. While some faster payment types have clearing processes that occur within seconds, it can still take hours or even a day before settlement is finalized and funds become spendable.

Consideration 4A: Policy makers could consider enabling instant payment systems as an option to deliver government benefit payments (to or from a government agency). Agencies would inform recipients of the option to establish accounts that accept instant 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. In these countries, 83 percent of people receiving a payment into an account made a digital payment. Among adults receiving a government transfer or pension payment into an account, 70 percent made digital payments.[34]

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[33] Currently, two instant payments platforms exist. In 2017, The Clearing House introduced its RTP® platform. In mid-2023, the Federal Reserve introduced its own platform, called FedNow Services®.

[34] Asli Demirgüç-Kunt, Leora Klapper, Dorothe Singer, and Saniya Ansar, *The Global Findex Database 2021: Financial Inclusion, Digital Payments, and Resilience in the Age of COVID-19*, Washington, DC: World Bank Group, https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099818107072234182/idu06a834fe908933040670a6560f44e3f4d35b7.

In the United States, all federal government payments are delivered using direct deposit through ACH or checks; the overwhelming majority are sent through ACH. These payments can go into a bank account or 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).

Accounts—even prepaid card accounts—can also 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 end up 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. By expanding the capabilities of accounts linked to government benefit payments like enabling instant payments, consumers can make use of a spectrum of products and services.

Consideration 4B: Regulators could encourage instant payment systems as a means of offering consistent funds availability and consumer information standards.

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 a service that can put cash in their hands right away, versus paying lower costs by using a bank account. Financial service providers across several types of payment use holds. Their purpose is to manage risks associated with lags in clearing and settlement times. Moving toward instant payment methods will virtually eliminate the need for holds.[35]

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 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,

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Financial services measured in the Global Findex Database were "made a digital payment," "stored money using an account," "saved formally," and "borrowed formally."

[35] Banks often place holds because they suspect fraud. These holds will need to continue to be a part of payment processing.

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.

Instant payments offer 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 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.

Financial providers will need to consider the tradeoffs involved in using instant payment technology. Immediate access to money means the consumer can spend it faster, which may affect consumer spending patterns. Also, there is little room for error once someone decides to send an instant payment. Instant payment products and services should be designed to meet the needs of vulnerable populations with risk-based safeguards that value consumer protection and promote responsible use. Providers should design inclusive financial products and services[36] with the intended user in mind and would do well to get input from that target group throughout the development process from ideation, to testing, to product launch.

Consideration 4C: Financial institutions and service providers could offer instant payments systems as an option for businesses and consumers.

A recent Federal Reserve report[37] detailed the ways that instant payments can promote financial inclusion for both consumers and businesses. For consumers, two specific financial inclusion benefits stand out. First, money management should be easier with instant payments than for other noncash payments, and as easy as with cash. Second, consumers who use instant payment vehicles will be able to be timelier with bill payments and could be at a lower risk of incurring penalties and overdraft fees on their bank accounts. 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 instant access to funds

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[36] Commonwealth, "Actionable Insights for Inclusive Product Design," Commonwealth, n.d., https://buildcommonwealth.org/research/actionable-insights-for-inclusive-product-design/.
[37] Raphael Bostic, Mark Gould, Julian Alcazar, Shaun O'Brien, Lali Shaffer, Jessica Washington, "Connecting the Dots: How Adoption of Instant Payments Can Lead to a More Inclusive Economy," Federal Reserve Bank of Atlanta, July 2023, https://www.atlantafed.org/banking-and-payments/payments-inclusion/publications/2023/07/12/connecting-the-dots-instant-payments.

is critical or somewhat critical for a broad range of cases.[38] Some of the perceived benefits to instant payments that consumers cite include avoidance of late fees, convenience, flexibility, and control.

Instant payments are also likely to provide several benefits for businesses. The technology can help ease liquidity—cash flow—constraints for businesses, which is especially important for small, mid-size, and minority-owned businesses. Research has shown that these businesses in particular tend to have higher cash-flow challenges. Entrepreneurs and gig workers who similarly have a less predictable cash flow are also likely to benefit. Moreover, instant payments could reduce friction and increase efficiency in business-to-consumer payments, especially in emergencies, and business-to-business relationships.

But while instant payments offer many benefits, they do carry some risk. Consumers must be aware of one important risk associated with instant payments, and that is their irrevocability. Banks, businesses, and vendors will have to be especially careful to mitigate the potential for fraud and errors in the payment process.

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, or prepaid cards. Businesses who engage in ecommerce generally choose not to accept cash.[39] Some states and cities require merchants to allow consumers to pay cash for in-person payments. If a customer cannot use their 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 at all 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.[40] Customers as well as merchants may have compelling reasons for their payment choices. In the interest of an economy that works

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[38] Daniel Keyes, *Real-Time Payments: An Urgent Priority for Financial Institutions*," Javelin Strategy & Research, November 2021, https://javelinstrategy.com/research/real-time-payments-urgent-priority-financial-institutions.

[39] In many countries, consumers can make cash-on-delivery payments for online orders.

[40] Claire Greene and Oz Shy, "How US Consumers without Bank Accounts Make Payments," *Policy Hub*, Federal Reserve Bank of Atlanta, January 2023, https://www.atlantafed.org/-/media/documents/research/publications/policy-hub/2023/01/11/01--how-us-consumers-without-bank-accounts-make-payments.pdf.

for all, every merchant would ideally accept all payment types, unless constraints such as risk, capability of payment acceptance, or another issue present risks.

Consideration 5A: Policy makers could explore ways to create cash-in/cash-out network ubiquity.

Cash-in/cash-out (CICO) networks are mechanisms or networks by which consumers can exchange cash for electronic or digital value or vice versa. The CICO infrastructure is made up of agents like ATMs, bank branches, and other retail-based systems. CICO points become a gateway for consumers to use the digital economy. Evidence from global data shows that even when consumers digitize portions of their money to make payments, they still demand cash for certain payment transactions.[41]

Improvements to self-service checkout platforms would provide an opportunity to promote payment options, such as CICO 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 enhancing 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. 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 consumers feed in cash to receive a prepaid debit card. However, these types of ATMs might be too costly for small merchants to have on site.

Consideration 5B: Regulators could consider collaborating with small business technical assistance programs to promote the importance of accepting diverse payment types.

For small and medium-sized businesses, enabling the acceptance of diverse payment types can be costly. Given their resource constraints, these businesses will likely require the most help to achieve this. 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. Businesses differ in size, models, and technology, which challenges the delivery of broad education or incentives and thus requires tailored incentives. Integration with existing programs could focus on payment types associated with economic well-being and resilience.

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[41] Emilio Hernandez, "The Role of Cash In/Cash Out in Digital Financial Inclusion" (blog), CGAP, https://www.cgap.org/blog/role-of-cash-incash-out-in-digital-financial-inclusion.

Business customers should receive education about comprehensive approaches to payment acceptance.

Consideration 5C: Financial institutions and payment service providers could offer discount programs for similar types of businesses.

Though small businesses are price sensitive, they are generally willing to make investments that save time, increase convenience, and create operational efficiencies.[42] If financial institutions can offer discounts and easily implemented products and services to businesses with similar structures, they may be able to reach more business customers with innovative payment acceptance solutions. Moreover, such discounts could help reduce 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.

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[42] Christine Barry, "Delivering the Experience Small Businesses Expect: Three Critical Components," Aite Novarica, October 2021, https://aite-novarica.com/report/delivering-experience-small-businesses-expect-three-critical-components.

Automated teller machines a step to greater financial inclusion

Automated teller machines (ATMs) were introduced in the 1980s and quickly became an important vehicle for consumers to access financial products and services. ATMs initially advanced financial inclusion because, for many people, they expanded the times during the day and week when they could access their money. Moreover, ATMs were often deployed in places other than where a financial institution had a physical branch, meaning that geographic access to one's money was also expanded.

Since the initial introduction of ATMs, the networks of independent ATM operators have emerged as an important supplement to the ATM networks of banking institutions. 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. Moreover, in recent decades, the number of banking institutions in the United States has fallen considerably. From 2002 to 2022, the number of FDIC-insured banks declined by nearly half, from 9,354 FDIC-insured banks to 4,706.* This contraction has led to less coverage by financial institutions in some geographic areas. In these areas, independent ATM operators often strategically deploy machines. 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."**

Early ATMs primarily dispensed cash, but financial institutions have since then invested in technology to increase their capacity and functionality. Today's marketplace features smart, video-enabled, and cash-deposit ATMs that allow customers to conduct a broader range of activities and benefit from some historically in-person financial services, such as receiving a professional's financial guidance, via video tellers and advisors. Having access to a broader range of financial products and services gives consumers greater control, which we noted earlier is an important objective for cash-reliant consumers.

* Federal Deposit Insurance Corporation, "FDIC Statistics at a Glance, Historical Trends as of December 31, 2022," https://www.fdic.gov/analysis/quarterly-banking-profile/statistics-at-a-glance/2022dec/fdic.pdf.

** Financial Crimes Enforcement Network. 2022. "Statement on Bank Secrecy Act Due Diligence for Independent ATM Owners or Operators." Financial Crimes Enforcement Network, June 2022.

Barrier 6: Security and fraud concerns

Since 2020, bank fraud has dramatically increased. So has the cost to banks to rectify fraudulent transactions, which increased from $3.64 to $4 for each dollar investigated or recovered for the attacked customer, merchant, or bank, or all these parties.[43] In addition, the volume of criminal activity increased by 17 percent during the same period. It is therefore imperative to devise a comprehensive strategy that ensures that the targets of bank fraud (customers, merchants, and banks) are aware of their rights and responsibilities. Providing education, strategies, and technologies to combat this growing trend is also of paramount importance. The following considerations and strategies could help prevent fraudulent transactions, enhance security, and otherwise mitigate fraud.

Consideration 6A: Policy makers could increase research into payment fraud trends.

Payments fraud and financial crime evolve quickly, complicating mitigation techniques and apprehension of the perpetrators. In addition, the reputational implications of fraud can make stakeholders reluctant to share information. Providers will often 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.

Consideration 6B: Regulators could clarify liability among those involved in a transaction dispute as well as resolution procedures involved in a dispute.

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 attacking the new threats targeting the new channels takes on greater importance. When liability and dispute procedures are unclear, consumer perceptions of security turn negative. Risk-averse consumers will consider digital payments only when they feel confident that security controls are effectively protecting them against fraud and when they know how to handle unexpected events such as fraud.

Consideration 6C: Financial institutions and service-provider activities could enhance controls over their transactions.

Banks and service providers could provide customized training based on who is taking the training. For customers and merchants, such training should focus on the proper methods of

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[43] LexisNexis. 2022. *True Cost of Fraud Study*: *Financial Services and Lending Report*, LexisNexis Risk Solutions, 2022, https://risk.lexisnexis.com/insights-resources/research/us-ca-true-cost-of-fraud-study#financialservices.

securing their accounts, recognizing potential attacks, and, for businesses, informing consumers of their rights. 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 types of 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 about current trends. Using established security measures, financial institutions can incorporate machine learning and data analytics to fight fraud.

Barrier 7: Limited financial and digital education

As technological innovation drives more financial activity into the digital world, this deficit could increase. In addition, 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. Many consumers, regardless of socioeconomic status, could benefit from a better understanding of products and services that could enhance their financial situation. A high-quality educational plan could be created and implemented in a variety of ways. The following topics could be considered as part of a targeted approach to help people more comfortably and confidently embrace digital payments.

Consideration 7A: Policy makers could promote education about digital payments and encourage the addition of associated data security to K-12 and collegiate curricula encompassing overall financial literacy.

New curricula in 17 states require personal finance classes for 11th and 12th grade students. States that have not yet adopted a proposed curriculum have many opportunities to influence curricula and provide helpful educational resources. For example, the FDIC developed a Money Smart curriculum for students that is interactive and engaging.

Consideration 7B: Regulators could promote campaigns and guidance about inclusive design features in digital payments to financial institutions and service providers they supervise.

The Community Reinvestment Act (CRA) can be a vehicle for promoting financial inclusion through an array of educational initiatives and programs. Financial institutions may be motivated to offer financial education if they understand how to earn CRA credit for those efforts.

Consideration 7C: Financial institutions and service providers could 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.

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.

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

Conclusion

Until recently, initiatives in the United States that promote financial inclusion have mostly focused on the accessibility of bank accounts, and account ownership remains a fundamental measure of financial inclusion. However, the goal of payments inclusion 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 and the way consumers make payments are critical components in determining overall financial outcomes. To be included in the world of digital payments 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 clear that digital payments innovations can be a gateway to financial and payments inclusion. The rapidly accelerating growth of these innovations means consumers and businesses can reap better financial benefits, including early access to wages, the ability to pay bills in ways that match their cash flow, and the ability to create payment history that improves access to credit. In short, these innovations can give consumers better tools overall for financial management and 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.

Four main drivers are at the root of why some consumers remain cash reliant. These consumers may have

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

The considerations this report lays out aim to spark new collaborative efforts and deepen research to address these barriers. We hope it 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. 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.