Why is the United States Lagging Behind in Payments?

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July 27, 2021

Abstract

The US plays a key role in the global financial system. At the same time, its payments system lags behind the global frontier. The primary task of any payment system is to move value in a low cost, convenient, and timely manner. Across all of these dimensions, the US experiences substantial frictions due to legacy infrastructure, market fragmentation, and lack of competition. Low-income households end up bearing the burden of these frictions, and there are stark income and racial differences in both access and participation in the financial system. In the absence of regulatory and technical developments targeted at improving market structure, lowering barriers to entry, and facilitating collaboration between public and private sector efforts in digital payments, these dynamics are unlikely to change.

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1 Introduction

Payments systems are networks of ledgers, and while settlement within the same ledger can be instantaneous and free, moving across ledgers relies on intermediaries, which introduces additional fees and processing delays. The US enjoys one of the least concentrated banking systems among the G30,[1] but this feature has also created a fragmented and expensive payments system. Transfers between major US banks incur fees ranging from \$10 to \$35 for same-day wires, and up to \$3 for 2-day transactions.[2] Compare this to the UK, where individuals and businesses have access to a free, 24/7 interbank payments system which settles within seconds and supports over 8M transactions per day.[3] While the US does have a Real Time Gross Settlement (RTGS) system, the Fedwire Funds Service carries less than 1 million transactions per day,[4] has limited 21/5 availability, and is almost exclusively used by financial institutions and large corporations. Its fees, moreover, are larger than alternative payment methods such as ACH, creating a trade-off between cost and immediacy.[5] Private sector alternatives are limited, and while some banks have deployed real-time solutions, these come with transaction limits and little adoption, which severely reduces their usefulness.

With 7% of adults (15+) unbanked, the US also lags behind all G7 countries (see Figure 1), an issue that is exacerbated when looking at the differences between rich and poor: while only 1.6% of adults in the top 60% of the income distribution is unbanked,

[1]The US has the lowest banking concentration in the G30, and the fifth lowest of 155 measured countries, as measured by top 3 bank concentration (the share of assets in the largest three banks in the country). Source: The World Bank, *Databank*, 2017.

[2]Finder, *Guide to Wire Fees for Bank Transfers*, 2021 January; MyBankTracker, *Compare ACH Fees For Top Banks*, 2021 January 25th.

[3]The service offers payment limits of £50,000 (USD\$70,000) for individuals and £250,000 (USD\$350,000) for businesses. Faster Payments, *Faster Payments Statistics*, 2021 May 12th.

[4]Federal Reserve System, *Fedwire Funds Service Monthly Statistics*, 2021 May

[5]Fedwire Funds Service fees are \$0.84 for transactions below \$14,000, \$0.25 for transactions between \$14,000 and \$90,000, and \$0.165 for transactions over \$90,000. ACH fees average \$0.29 but can take up to 3 business days to clear.
Association for Financial Professionals, *Payment Cost Benchmarking Survey*, 2015; Federal Reserve System, *Fedwire Funds Service Fee Schedules 2021*, 2021.

the share is 14.8% for adults at the bottom of the distribution. Racial differences in bank coverage are equally stark, with only 2.5% of White households among the unbanked in 2019, relative to 13.8% of Black and 12.2% of Hispanic households.[6] More troubling, measures of bank coverage have stagnated over the last decade, suggesting that without reform, the situation is unlikely to improve. For the unbanked, consequences go beyond payments: households who leave the banking system due to local bank consolidations experience higher rates of financial distress, unpaid debts, evictions and medical bankruptcies.[7]

Figure 1: Unbanked 15+ population among G7 countries

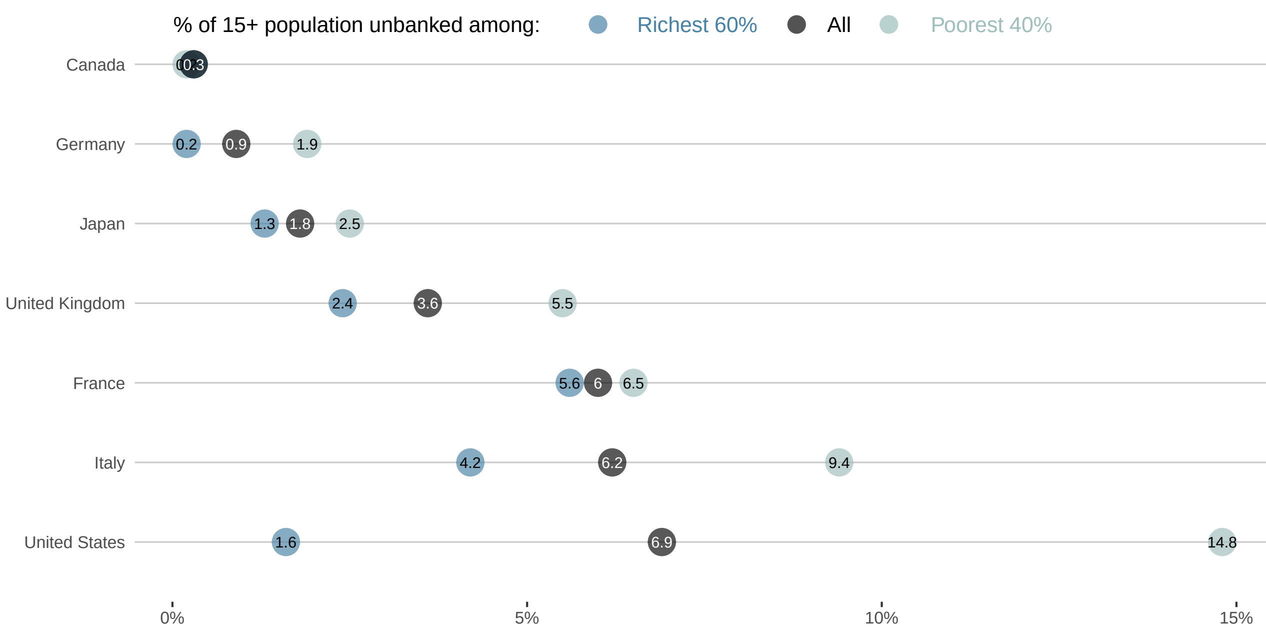

Figure 1 shows the % of the population aged 15+ that is unbanked by income cohort in each G7 country. Data is from the World Bank Databank (Catalogue: *Global Financial Inclusion*, 2017).

In the rest of this piece, we explore in detail how frictions in payments affect indi-

[6] Federal Deposit Insurance Corporation (FDIC), *How America Banks: Household Use of Banking and Financial Services, 2019 FDIC Survey*, 2020 October.

[7] Bord, Vitaly, *Bank Consolidation and Financial Inclusion: The Adverse Effects of Bank Mergers on Depositors* , 2018 December

viduals (Section 1), businesses (Section 2) and the government (Section 3). We briefly discuss potential solutions in the conclusion (Section 4).

2 How limitations affect individuals

A quarter of US domestic payments relies on cash,[8] imposing high costs in terms of time, ATM fees, theft risk and more. These costs were estimated to be $43B in 2013, and disproportionately affect low-income individuals that do not have bank accounts.[9] Part of the reason is that checking accounts are expensive, incurring in 2020 average total monthly fees of $7.65.[10] While banks reimburse some of these fees to customers that meet minimum balance requirements, this concentrates costs onto those who can least afford them. Black and Hispanic account holders end up paying more for the same services: $12.07 and $13.96 per month respectively, compared to $5.37 among White customers.[11] Among the unbanked, about half (48.9%) report not having enough money to meet minimum balance requirements, and 36.3% respond that they do not trust banks. Fees are also a major deterrent, with 34.2% stating that they are too high, and 31.3% that they are too unpredictable. 50.4% of unbanked households previously held a bank account, and exited the banking system because of high, unpredictable or opaque fees.[12] Bank consolidations accelerate this trend, as they are associated with higher fees and minimum balance requirements,[13] reductions in the banked population,

[8] Federal Reserve System, *2020 Findings from the Diary of Consumer Payment Choice*, 2020 July.

[9] Chakravorti & Mazzotta, *The Cost of Cash in the United States*, 2013 September. The largest component of these costs is lost time: people spend on average 28 minutes traveling to access cash, not including the time spent waiting in line. In addition, these costs include about $8 billion in non-home bank ATM transaction fees and fees paid to checking cashing services, and the cost of theft and theft mitigation which are together estimated at approximately $1 billion.

[10] Comprising monthly service fees, transaction fees, withdrawal fees and overdraft fees; BankRate & YouGov, *Checking Account Survey*, 2021.

[11] *Ibid.*

[12] Federal Deposit Insurance Corporation (FDIC), *op. cit*

[13] Bord, Vitaly, *op. cit.*

increases in expensive check-cashing facilities, unpaid debts and evictions.[14]

Even banked individuals who rely on cards for payments end up implicitly paying high fees to various institutions along the transaction authorization and clearance loop. These include interchange fees paid to issuing banks, assessment fees paid to card networks, and payment processor fees. Together, these costs add up to more than 2%, and though they are technically paid by the merchants, they inevitably end up increasing consumer prices. While credit card users (24% of payments) recover some of these fees in the form of rewards, debit card users (30% of payments) very rarely do. Since access to credit is correlated with income, again low-income individuals end up bearing the burden of these frictions.

Beyond domestic payments, with a total of $71.5B (0.3% of GDP) in flows in 2019, the US is also the world's leading remittances sending country.[15] Remittances represent a critical lifeline for many receiving countries, especially as they struggle to contain Covid-19 and 120 million people are at risk of being pushed into poverty.[16] Sending remittances from the US, however, is expensive. The World Bank estimates that the average cost for international transfers was 5.2% in Q4 2020, decreasing only marginally from 6.0% in Q4 2016.[17]

3 How limitations affect businesses

In the US, the majority of payments are made using cards (54%).[18] To accept card payments, merchants pay a range of fees[19] such as interchange fees to card issuing banks (1.15% to more than 3%), assessment fees to card networks (0.13 to 0.15%)

[14] *Ibid.*
[15] The World Bank Group, *Annual Remittances Data (updated as of October 2020).*
[16] Brookings Institute, *The Impact of COVID-19 on Global Extreme Poverty*. 2020 October.
[17] The World Bank Group, *Remittance Prices Worldwide Quarterly, Issue 36*, 2020 December.
[18] Federal Reserve System, *2020 Findings from the Diary of Consumer Payment Choice*, 2020 July.
[19] The Ascent, *Average Credit Card Processing Fees and Costs in 2020*, 2020.

and additional fees collected by payment processors (these vary based on the type of merchant and transaction).[20] Combined, these fees make receiving payments one of the biggest costs of doing business in the United States. Merchants also face cash flow problems due to slow settlement, the costs of which can be estimated by looking at what they are willing to pay for instant settlement, which is approximately 1%.[21]

Business to business (B2B) payments are also expensive and a major obstacle to growth. Paper checks remain the most common B2B method of payment for approximately 34% of companies. Despite being so commonly used, they rank fourth in terms of satisfaction after ACH, electronic bank transfers and credit cards.[22] The total cost of a single business check can range from \$4 to \$20.[23] Even companies that rely on other methods rarely use a fast payment one: about 18% of companies reported regularly using ACH, but only 4% same-day ACH.[24] Using faster payment methods does still not avoid delays due to invoicing and other procedural delays. In a survey of businesses with revenues ranging from \$50M to \$1B, 30% of participants state that payment processing time is a major cost for their business. In such a context, a real time payment system that allows for both pull and push transactions could go a long way in solving these problems. After more than 2 years from launch, take-up of the closest candidate for such a system is only in the range of millions of transactions a month.[25] According to a research survey of 270 experts at financial institutions, major barriers to adoption are high upfront costs, inertia, and overall uncertainty about the

[20]For instance, payment processors can charge merchants an additional 0.9% for 'card-not-present' transactions, and an additional 0.3% for online transactions. See Square, *Understanding Our Fees.*, 2021

[21]Stripe, *Pricing*, 2021

[22]Mastercard, *The B2B Payments Tipping Point: Why All Signs Point to Innovation*. 2018 September

[23]Wall Street Journal, *U.S. Companies Cling to Writing Paper Checks*, 2014 March 10th.

[24]Same-day transactions have transaction limits which exclude most B2B payments.

[25]Levvel *"Driving RTP for Modern Business: Keeping It Real-Time Payments with The Clearing House."* 2021 March 25.

ecosystem's future.[26]

Payments infrastructure also affects how businesses pay their employees, which in the US typically happens through direct deposit (82% of employees) or paper cheques (majority of the rest).[27] Both methods impose costs on businesses, from an average $0.35 per transaction for direct deposit, to $2 for physical cheques.[28] They also increase working capital requirements as they can take from three hours to two business days to settle. Physical cheques, often the only option for the unbanked, introduce large costs for employees that need to rely on cheque cashing services too (for example, a large retail chain charges up to $8 for each cheque above $1,000).[29]

Last, businesses face the highest fees and longest delays when performing international payments. B2B payments are primarily made via SWIFT, and take between one and five business days. Settlement is also unpredictable, may incur additional fees and vary with the number of correspondent banks involved. Incoming wire fees at major banks average around $15, while outgoing fees range from $30-$45 depending on the number of correspondent banks used. Processing times can also be lengthened, and fees increased by up to ~3%, if the recipient's bank requires currency conversion. In these cases, the recipient also harbors foreign exchange risk between payment and settlement. The complexity of the payment chain makes international payments a lucrative target for business scams - since a firm's identity is not clearly linked to its banking coordinates, and since halting a payment is made more difficult by the number of parties involved. The FBI estimates wire payment fraud between businesses to account for $1.8bn in losses, more than half of cybercrime losses.[30]

[26]Levvel, *2021 Real-Time Payments for Businesses — Market Insight Report*, 2021.

[27]NACHA, *Direct Deposit Survey Report 2015*, 2016 April 1st.

[28]Ibid.

[29]Cheque deposit fraud is also the largest form of bank deposit fraud, accounting for 47% or $1.3 billion of industry deposit account fraud losses; American Bankers Association, *Deposit Account Fraud Survey*, 2019 January 1st.

[30]Federal Bureau of Investigation, *2019 Internet Crime Report*, 2019.

4 How limitations affect the Government

Frictions in the financial system also constrain the government's ability to achieve key policy objectives. One such objective is making fast and error-free payments to individuals, particularly in a crisis. The recent experience with Covid stimulus checks to households shows that the current system results in delays, mistakes and additional costs for recipients.[31] For relief checks that were deposited in bank accounts, recipients only faced a 1 to 2 days delay. However, a large share of recipients received these payments as paper checks, which added several days between check issuance and fund availability. For the unbanked, paper checks also added costs to access the funds. Instant payments using faster rails would help the government make faster and more efficient welfare transfers.

The architecture of the current system also introduces design constraints on conditional transfer programs like the Supplemental Nutrition Assistance Program (also known as Food Stamps). These benefits are distributed through an Electronic Benefit Card issued to recipients, which is reloaded on a monthly basis by the government. Research shows that the monthly cycle is too long, with students whose families receive Food Stamps suffering from a drop in test performance towards the end of the payment cycle.[32] Making these payments on a weekly basis would allow recipient families to plan better, but the current cost of weekly payments would be high. Under a lower cost digital payment system, the government would be able to make more frequent transfers at lower cost.

Finally, the high prevalence of cash transactions allows for selective reporting of transactions and therefore influences the tax liability of individuals and businesses.

[31] USA Today, *Stimulus checks sent to wrong bank accounts for some Americans checking IRS 'Get My Payment' tool*, 2021 March 14th.

[32] SSN Key Findings, *How Problems With America's Food Stamps Program Affect Poor Children's Attainments At School*, 2017 December.

The IRS estimated the value of underreported taxes at $376B in 2006 and at $352B in 2013.[33] To the extent that replacing cash with digital payments would reduce this tax gap, the government would benefit in the form of increased revenues. [34]

5 Conclusion

There are at least three ways to remove frictions in payments and rapidly expand the number of individuals and businesses that can access the financial system and cheaply transact in real time. The first is to bring deposits on a single ledger through a Central Bank Digital Currency (CBDC), so that transfers between banks are not limited by external liquidity constraints or third-party rails. The second approach is to follow countries such as India and Mexico and increase the throughput of always-on RTGS systems.[35] This is the model the Federal Reserve is pursuing with the introduction of FedNow, targeted for 2023. FedNow, however, is expected to have an initial transfer maximum of $25,000, which would limit its usefulness to businesses.[36] The third approach is to facilitate the growth of interoperable, stablecoin payment rails by creating the right regulatory framework for these new types of networks to safely increase competition in payments.

While each one of these approaches presents different challenges, opportunities and trade-offs in terms of complexity, development costs and ability to expand access to segments that are currently excluded, it is important to stress that they are likely to be complements, not substitutes.

[33] Internal Revenue Service, *Federal Tax Compliance Research: Tax Gap Estimates for Tax Years 2011-13, Publication 1415 (Rev. 9-2019)*. 2019.

[34] Chakravorti & Mazzotta (2013), *op. cit.*, estimate the cost of cash in terms of underreported tax at $100B.

[35] The definition of an RTGS is a means by which deposits can be transferred between banks instantaneously ("real-time"), without requiring the aggregating and netting of transactions ("gross"), with asset transfer finality ("settlement").

[36] Federal Reserve, *"Federal Reserve updates FedNow Service launch to 2023"*, 2021 February 2nd.

Advancing the US payments infrastructure will require both regulatory and technical developments targeted at improving market structure, lowering barriers to entry, and facilitating collaboration between public and private sector efforts in digital payments.

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