Central Banker's Hours: The Fed's Tortuous, Slow Road to Faster Payments

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On May 9th, the Federal Reserve System announced that it was "seeking input" on a proposal to expand the operating hours of two "wholesale" payment services it operates, Fedwire Funds Service (henceforth "Fedwire") and the National Settlement Service (NSS).[2] Wholesale payment services are responsible for transferring direct liabilities of central banks between financial institutions, particularly, in value terms, for the settlement of interbank dues. At present Fedwire and the NSS only transfer funds on weekdays, excluding holidays.[3] The proposed expansion would have them run 22 hours a day, seven days a week, holidays included.[4]

This proposed reform has been long in the making, for the potential gains from weekend and holiday Fedwire and NSS hours have been recognized for many years not only by financial industry, non-financial business, and consumer representatives, but by Federal Reserve officials themselves. This paper explains those potential gains. It then surveys the Fed's repeated postponement, over the course of almost a decade, of plans to provide for weekend and holiday Fedwire and NSS operating hours, arguing that in delaying for so long the Fed has neglected its duty, as the United States' monopoly provider of wholesale settlement services, to adapt those

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[1] Senior Fellow, Center for Monetary and Financial Alternatives, Cato Institute.

[2] Board of Governors of the Federal Reserve System, "Expansion of Fedwire® Funds Service and National Settlement Service Operating Hours" [Docket No. OP-1831]. *Federal Register* 89, May 9, 2024: 39613-39621, at https://www.federalregister.gov/documents/2024/05/09/2024-10117/expansion-of-fedwire-funds-service-and-national-settlement-service-operating-hours

Whereas Fedwire is used for bilateral fund transfers, from one Federal Reserve master account to another, the NSS is used to settle payments arranged by third-party, private-sector clearing services that maintain their own specially-designated master accounts for the purpose. At the end of a discrete clearing session, involving a batch of payments, the clearing service determines which banks are net debtors and which are net creditors. The NSS is then instructed to transfer funds from the debtors' individual master accounts to the clearing service account, and from the clearing service account to the net creditors' master accounts.

[3] Unless otherwise stated, times and dates herein are Eastern Standard. To be precise, Fedwire opens at 9PM on the evening before each weekday, to begin processing payment orders for settlement on that day, and remains open until 7PM each weekday. It thus operates on a 22/5 schedule, meaning 22 hours a day for 5 days a week. The proposal would have it operate 22/7.

[4] For Federal Reserve holidays see Federal Reserve Services, "Standard Federal Reserve Bank Holidays," at https://www.frbservices.org/about/holiday-schedules. Note that, when any of these holidays falls on a Sunday, Fed services remain closed on the following Monday.

services to changing needs. The paper concludes by urging Fed officials to proceed at last, as rapidly as possible, with the Fedwire and NSS hours expansion plan they first promised to work toward years ago.

Paying and Getting Paid

The best way to appreciate the importance of timely wholesale settlements is by taking a close look at how ordinary U.S. dollar payments are completed. Although, from payors' point of view, making a payment may seem to take just a moment, from payees' perspective the process can take much longer, depending on both how and when the payment is made.

Let's first consider two relatively simple and familiar cases: payment in actual cash and payment by paper check. Payment in cash is by far the simplest option. Provided that the cash can be handed-over in person, it's also the quickest. If you pay $1000 for a used car with cash, once you hand the cash over the payment is complete or "final": no one still owes anyone anything, and the payment once made can't easily be reversed.

But the immediate finality of cash payments is exceptional. If, instead, you pay for the car with a personal check, you've merely taken the first step of an involved check "clearing and settlement" process. To complete that process, the seller must first endorse the check and deposit it at his bank. Rather than immediately crediting the seller's account for the deposited sum, his bank will usually put a "hold" on the check, to allow for the time it takes for the check to settle. The seller's bank will then send the check or (more commonly today) an electronic image of it, to your bank with a request for payment.[5] Several possibilities then arise. If you and the seller happen to share the same bank, the bank can settle such an "on us" transaction simply by crediting the car seller's account $1000 and debiting your account by the same amount.

If, on the other hand, you and the seller bank at different banks, settlement will require a transfer of funds from your bank to the seller's. If the two banks are in the same town, the seller's bank might present the actual or virtual check directly to your bank for payment. Your bank must then wire funds to the seller's bank to settle the transaction. If, on the other hand, you bought the car from an out-of-town seller, the seller's bank will probably rely on some intermediary institution to "clear" your check—that is, to pass it on to your bank and arrange for settlement of the two banks' accounts. The seller's bank will then bundle your check with other out-of-town checks received on the same day, passing them all on, either physically or virtually, to a private check clearinghouse, a correspondent bank, or the Federal Reserve. The intermediary it chooses will then complete the clearing and settlement process for it.

The Fed and private check-processors each handle roughly similar shares of the check processing business. Either way, settlement makes use of banks' "master accounts" at the Fed. When the Fed itself processes checks, it directly posts credits and debits to banks' master accounts—but it does so only during ordinary business hours. But suppose instead that your insurance check is cleared using the private check image exchange system operated by The Clearing

[5] Thanks to the October 2003 passage of the Check 21 Act, for the most part banks now exchange electronic images of checks in lieu of paper checks themselves, effectively converting checks into mostly electronic payments media.

House (TCH).[6] In that case the obligations across participants in that system are first netted out. The resulting net debits and credits are then settled using the Fed's Net Settlement Service, with prepares a file recording them that it then submits to the Fed.[7] Upon receipt of the file, the Fed debits $1000 from your bank's master account while crediting the master account of the seller's bank by the same amount. But these transactions also occur only during business days. For a fee, the Fed allows banks to overdraw their master accounts during those days, provided they end up with non-negative balances. Banks may also rely on the Fed's wholesale services—Fedwire, in this case—to borrow funds from other banks when they need to "top up" their master account balances to avoid penalties. But such topping-up is also possible only while Fedwire is open for business.

The fact that the Federal Reserve System handles most wholesale settlements explains why, depending on when the car seller deposits your check, he may have to wait several days before he "really" gets paid. If the seller deposits your check between Monday and Thursday, his account will usually be credited no later than the next calendar day, when the Fed will usually have made the necessary funds transfer from your bank to his. But because the Fed's wholesale settlement and check-processing services are closed on weekends, should he deposit it on a Friday, he can't expect to have the $1000 any earlier than Monday. If Monday happens to be a holiday, he can't count on getting paid any earlier than Tuesday. Although the car seller's bank could allow him access to the money ahead of settlement, doing so is risky, because your check might bounce, or (less probably) your bank might fail. So, banks generally make customers wait for their checks to clear and settle before releasing the funds. Although check holding periods have been strictly limited since the passage of the August 1987 Expedited Funds Availability Act (12 USC Ch. 41), that measure still allows checks to be held for two *business* days, where the "business day" stipulation reflects the lack of weekend and holiday wholesale settlement opportunities.

ACH Payment Lags

Check payments are, admittedly, the horse-and-buggy of noncash U.S. payments. Every year their importance declines relative to that of other noncash payments, including credit card, debit card, ACH ("Automatic Clearing House") payments (including direct deposits and automatic bill payments), and, in recent years, payments on various instant or "real time" retail payments networks. Yet checks are still important. In 2021 $27.23 trillion doll worth of checks were written in the U.S., representing more than one-fifth of the value of all noncash payments.[8] Besides being written by consumers to pay for goods and services, checks also continue to be widely used in business-to-business payments and for paying wages.

Check payments are nonetheless on their way out, while other sorts of noncash payments are becoming more and more important. ACH payments accounted for 90 percent of the total rise in noncash payments between 2018 and 2021, when they reached

[6] TCH is the United States' longest-established private interbank payment service provider, having been founded, as the New York Clearing House, in 1853, or 60 years before the Federal Reserve Act's passage.

[7] I thank Richard Drizna for supplying this detail.

[8] Board of Governors of the Federal Reserve System, "Federal Reserve Payments Study," June 24, 2024, at https://www.federalreserve.gov/paymentsystems/fr-payments-study.htm

$92 trillion, or more than three and one-third times the value of checks settled that year.[9] The ACH network—an electronic funds-transfer system in which practically all U.S. banks and credit unions participate—handled most wage and salary, social security, and federal tax refund payments, as well as many insurance claim payments. Though they are far less important at present, noncash payments made on recently established instant or "real time" retail payment networks are likely to grow even more rapidly than ACH payments.

But even a complete shift from checks to ACH payments wouldn't itself do away with payment lags, because most of those alternatives also depend on either Fedwire or the NSS for final settlement. ACH payments, for example, are administered either by the Federal Reserve, which relies on Fedwire for settlement, or by the privately-owned Electronic Payments Network (EPN), which relies on the National Settlement Service.[10] Although a "same-day" ACH payments option has been available, for a premium, since 2015,[11] ACH credits can otherwise take up to two business days to settle. Here, as with check payments, "business days" means days on which the Fed's wholesale settlement services are open for business, so that while most ACH payments settle in a day or less, settlement can take as much as five calendar days.

Suppose, for example, that you file a claim with your insurance company on a Friday afternoon, and it sends an ACH payment file to its bank that same day. Assuming that the insurance company chooses ACH's one-day processing option, rather than the more costly same-day alternative or the slower two-day option, the file will be received and processed on the next business day, which means Monday or (if Monday is a holiday) Tuesday. If the Fed handles the payment, it will then use Fedwire to debit the sending bank's Fed master account, and credit your bank's account, by the amount of the payment, just as it would if a check was used. If EPN handles it, it will rely on the NSS to deliver a file to the Fed containing all the net debit and credit information for batch of batch of payments including your insurance payout. Assuming that the settling banks that are net debtors have sufficient funds in their own master accounts to cover their dues, the Fed will debit those accounts by the amounts owed, and it will credit the accounts of the banks to which money is owed. At that point, the payments become final, allowing your bank to make your insurance payment available to you without taking any risk.

The Costs of Waiting

Although settlement delays aren't always a cause of hardship, there are plenty of cases in which such delays, and those of several days especially, can prove costly. According to Richmond Fed economist Tim Sablik, in 2022 "94 percent of small business owners reported experiencing some financial challenge over the prior year," including difficulties managing cash flows.[12] Sablik

[9] Ibid.

[10] EPN is owned by The Clearing House.

[11] The fee for same-day ACH payments cost ranges between $1 and $5, as compered to fees as low as 20 cents for 1-3 day completion. Since March 19, 2021, when the Fed extended NSS and Fedwire hours until 6:30 p.m. and 7:00 p.m. Eastern Time, respectively, requesters have been able to submit payment files as late as 4:45 p.m. Eastern Time for same-day processing.

[12] Tim Sablik, "Bringing Payments into the Fast Lane." Federal Reserve Bank of St. Louis *Econ Focus*, Third Quarter 2023: 21-24, at https://www.richmondfed.org/-

reports as well that "nearly two thirds of Americans last year were living paycheck to paycheck." As Federal Reserve Governor Lael Brainard remarked in an October 2018 speech, for such businessmen and workers, the difference between quickly receiving credit for a payment and receiving it only after several days "could tip the balance toward overdraft fees, bounced checks, or collections fees."[13] Two months later, Brookings' Aaron Klein observed that during 2015 overdraft fees, check-cashing services, and payday loans alone cost impatient payment recipients $34 billion, some part of which might have been avoided were it not for settlement delays.[14] To those costs one must add the incalculable costs businesses and individuals incur when, failing other expedients, payment delays prevent them from making their own payments on time.

The delayed delivery of stimulus funds following the COVID-19 crisis that began in early 2020 drew attention to the slowness of dollar payments, inspiring various proposals for hastening them.[15] Brookings' Aaron Klein has called for a revision of the 1987 Expedited Funds Availability Act to require banks to give immediate access to funds.[16] Others have suggested allowing anyone to have a Federal Reserve System account, so as to altogether bypass ordinary banks and other private payment service providers.[17] Still others urged the Fed to hurry up with FedNow, the retail real-time payments service in the works since 2019. These proposals generally overlooked the fact that the Fed's own "bankers' hours," and particularly its failure to open its existing wholesale settlement services on weekend and holidays, was among the more important reasons why government payment orders often took several calendar days to settle.

/media/RichmondFedOrg/publications/research/econ_focus/2023/q3/federal_reserve.pdf

[13] Lael Brainard, "Supporting Fast Payments for All," speech at the Fed Payments Improvement Community Forum, Federal Reserve Bank of Chicago, October 3, 2018, at https://www.federalreserve.gov/newsevents/speech/brainard20181003a.htm

[14] Aaron Klein, comment letter RE: "Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments," December 19, 2018, at https://www.federalreserve.gov/SECRS/2019/March/20190315/OP-1625/OP-1625_121418_133277_428769914666_1.pdf.

It bears noting here that, according to a 2014 study, almost three-quarters of those who paid to have their checks cashed then had bank accounts, so that they cannot be said to have done so because they lacked the option of simply depositing those checks and waiting for them to settle. See Rachal Schneider and Balafama Longjohn, "Beyond Check Cashing: An examination of consumer demand and business innovation for immediate access to check funds." Center for Financial Services Innovation, June 2014, at https://s3.amazonaws.com/cfsi-innovation-files/wp-content/uploads/2017/01/26052054/CFSI-Beyond-Check-Cashing-WhitePaper.pdf

[15] Lisa Rowan, "How You Could Get Your Second Stimulus Check Faster," Forbes, August 14, 2020, at https://www.forbes.com/sites/advisor/2020/08/14/how-you-could-get-your-second-stimulus-check-faster/

[16] Aaron Klein, "Want your next stimulus check faster? Congress needs to change just one line of law," *Barron's*, July 25, 2020, at https://www.barrons.com/articles/want-your-next-stimulus-check-faster-congress-needs-to-change-just-one-line-of-law-51595614654

[17] United States House of Representatives, Committee on Financial Services, Task Force on Financial Technology, Hearing on "Inclusive Banking during a Pandemic: Using FedAccounts and Digital Tools to Improve Delivery of Stimulus Payments," June 11, 2020, at https://www.congress.gov/event/116th-congress/house-event/LC65807/text

The Case for Weekend and Holiday Settlements

Fed officials have long understood that limited Fedwire and NSS hours are to blame for the fact that U.S. dollar payments sometimes take several days to settle. In fact, calls for expanded Fedwire and NSS hours, including calls for having them operate on weekends and holidays, date back more than two decades. In 2002, for example, the possibility was taken seriously enough for Congress to ask the General Accounting Office to look into it. The resulting September 2002 GAO report, on "Weekend Settlement: Potential Benefits, Costs, and Legal Issues," concluded that weekend settlement "would provide small benefits for retailers and consumers, and little, if any benefit for the economy as a whole."[18] That conclusion was based on consideration of the reform's potential benefits to retailers only, with hardly any notice of its potential benefits to workers living "paycheck to paycheck." Still the GAO's conclusion may have been reasonable—then.

But that was almost 22 years ago, and developments since have dramatically tipped the cost-benefit scales in weekend settlements' favor. There is, for starters, the sheer increase in the overall volume of payments of all kinds. Since the GAO report came out, both annual Fedwire (dollar) volume and annual retail sales have more than doubled, while weekends and holidays have long been peak times for retail shopping. These facts alone supply strong *prima facie* grounds for having the Fed establish weekend and holiday settlement services.

The especially dramatic growth of global or cross-border payments supplies another compelling reason for having Fedwire and the NSS operate on weekends and holidays. Cross-border retail payments already make up roughly a fifth of global retail payments, and that share increases every year. Retail cross-border business-to-business transactions have quadrupled since 2018, from $10.6 trillion to over $40 trillion, and are expected to reach $56 trillion by 2030—a 43 percent increase.[19] Cross-border consumer-to-business payments, worth $1,8 trillion in 2023, are expected to grow almost twice as fast, reaching $3.3 trillion by 2030. Although only eight percent or so of these transactions are handled by instant payment systems today, that share is also expected to grow rapidly—to 42 percent by 2028 according to one estimate. Eighty countries already have retail fast-payment schemes, and the number of such schemes is growing rapidly.[20]

The speed of cross-border instant payments, like that of domestic noncash payments, depends not only on how quickly payment instructions can be processed, but on how long it takes payments to settle; and with cross-border transactions as with domestic ones, final settlement relies on

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[18] General Accounting Office, "Weekend Settlement: Potential Benefits, Costs, and Legal Issues," report no. GAO-01-938, October 25, 2002, at https://www.gao.gov/products/gao-02-938

[19] See "Cross-border B2B Payments to Surpass $40 Trillion Globally by 2024," *Juniper Research*, January 2023, at https://www.juniperresearch.com/press/cross-border-b2b-payments-to-surpass-40tn/, and "Cross border payment revenues to reach $280 billion by 2030," *Convera*, August 8, 2023, at https://convera.com/blog/payments/cross-border-payment-revenues-to-reach-280-billion-by-2030/

[20] Kyle Rosen, "Cross-border payments in 2024," *Thunes*, January 15, 2024, at https://www.thunes.com/news/cross-border-payments-2024/

central-bank-administered wholesale settlement facilities. As a 2022 report by the Bank for International Settlement notes, limited central bank settlement service hours "can lead to a delay in cross-border settlement, especially between countries with significant time zone differences," while the straightforward way to avoid such delays consists of having all central banks offer 24x7x365 settlement services.[21]

Yet so far only eight central banks provide for weekend settlements at all, and only six—those of India, Mexico, South Africa, Switzerland, Oman, and Tanzania—operate near 24x7 wholesale settlement services.[22] Though that leaves a long list of central banks that don't offer such services, the Fed's presence on this list is especially conspicuous, for no other central bank could contribute as much to expediting cross-border payments by opening its wholesale settlement services on weekends and holidays. That's so because dollar payments account for a hefty 54 percent share of all cross-jurisdictional transactions.[23] By remaining open on weekends and holidays, the Fed wouldn't just create more immediate opportunities for rapid settlement of cross-border U.S. dollar wire or ACH transfers: it would also provide other central banks that have yet to offer weekend and holiday settlement opportunities a powerful inducement for doing so. Put less positively, as long as the Fed continues to put off further expansion of its own settlement hours, other central banks will have relatively little to gain, so far as international payments are concerned, by expanding their own settlement hours.

Still another post-2002 development that strongly favors having Fedwire and the NSS operate on weekends and holidays and, ideally, 24 hours a day, consists of the actual or planned establishment of "instant" or "real time" retail payment systems. Although such systems are designed to process payments even when central bank wholesale settlement services are closed, to the extent that those services fall short of offering 24x7x365 settlements, participants in these real-time networks must either bear the cost of maintaining larger average settlement balances or risk being unable to process all the payment orders they receive.

To give an example, in 2017 the TCH ("The Clearing House"), a private payments service provider, established RTP ("Real Time Payments"), this country's first nationwide 24x7x365 retail fast-payments

[21] Bank for International Settlements, "Extending and aligning payment system operating hours for cross-border payments." Committee on Payments and Market Infrastructures Final Report, May 2022, at https://www.bis.org/cpmi/publ/d203.pdf. Real-time *retail* payment systems that operate 24x7 are in fact more common today than 24x7 wholesale settlement arrangements. For a list of these as of 2020 see Aaron Klein, Structural Conflicts in Central Banking: Regulator or Operator of a Payment System?" Wharton Initiative on Financial Policy & Regulation White Paper, 2023, at https://wifpr.wharton.upenn.edu/wp-content/uploads/2023/09/Structural-Conflicts-in-Central-Banking.pdf.

[22] "Exploring Longer Operating Hours for RTGS." Bank of England Discussion Paper, February 8, 2024, at https://www.bankofengland.co.uk/paper/2024/dp/exploring-longer-operating-hours-for-rtgs

[23] Over 47 percent of all cross-border payments are made using United States dollars. The Euro is next, with a 22 percent share, while the shares of all other currencies are in the single digits. The 54 percent figure allows for the fact that many cross-border Euro transactions occur within the Eurozone, and are for that reason not actually "cross-jurisdiction" transactions.

service.[24] RTP operates using a special Fed account jointly owned by all banks that take part in it. Participants must have a balance in that account sufficient to cover every payment they make. But until 2023, when the Fed established a "Liquidity Management Tool" (LMT), discussed further below, to address the problem, RTP participants could only "top up" their RTP account balances when Fedwire was open. Consequently, to process weekend and holiday payments they had to "front load" their RTP accounts by enough to cover those payments before Fedwire's Friday closing. Since the value of weekend and holiday payments requests can't be known in advance, in practice to avoid disappointing their customers RTP's participants had to frontload the RTP account by considerably more than what they actually needed.

Although the Fed's Liquidity Management Tool addresses the particular problem RTP participants once confronted, and may also solve the same problem for other private retail "real time" payment networks, it can *only* be used to by such networks. That is, it does nothing to reduce settlement delays in check, ACH, and other "legacy" payments, which remain as dependent upon Fedwire and the NSS as ever. Because real-time retail payments presently make up only a very small part of total noncash payments, and because they are not likely to supplant "legacy" payments for many years, if indeed they ever do so, unless Fedwire and the NSS service hours are also expanded to include weekends and holidays, multi-day settlement delays will remain a problem for the vast majority of dollar payments. In contrast, were Fedwire and the NSS themselves ever to operate 24x7x365, there would no longer be any need for the present special-purpose Liquidity Management Tool.

If most existing retail payments can benefit from expanded Fed wholesale settlement service hours, it's also true that expanding those hours will assist and inspire further retail payment innovation. As the Federal Reserve Bank of New York's private Payments Risk Committee explained in 2021, expanding Fed settlement hours "provides a foundation for enhanced innovation across the economy, as FinTechs, other payment systems, and broader market participants leverage the foundation of an 'always on' RTGS to settle safely and efficiently."[25] There is, consequently, a positive feedback loop running from novel expanded-hour (if not "always on") retail payments innovations to expansion (in response to increased demand) of wholesale settlement system hours and back to further retail payments innovations, the natural culmination of which would appear to be 24x7x365 wholesale settlement arrangements.[26]

[24] The Clearing House, "First New Core Payments System in the U.S. in more than 40 Years Initiates First Live Payments," November 14, 2017, at https://www.theclearinghouse.org/payment-systems/articles/2017/11/20171114-rtp-first-new-core-payments-system

[25] Payments Risk Committee, "Fedwire Expanded Hours White Paper," April 8, 2021, at https://www.newyorkfed.org/medialibrary/microsites/prc/files/2021/prc-fedwire-expanded-hours-considerations-white-paper

[26] Michael Tompkins and Ariel Olivares, "Clearing and Settlement Systems from Around the World: A Qualitative Analysis," Bank of Canada Staff Discussion Paper 2016-14, June 2016, at https://www.bankofcanada.ca/wp-content/uploads/2016/06/sdp2016-14.pdf

Kicking the Can

If the potential benefits of weekend and holiday wholesale settlement service hours are so great, why hasn't the Fed already provided for them? Why will it provide them no sooner than March 2027, if it does so at all, when the Reserve Bank of South Africa and the Bank of Mexico have provided for 24x7 wholesale settlements since 2016, and the Reserve Bank of India has done so since December 2020? Why has the Fed fallen behind another half-dozen monetary authorities that presently offer at least some weekend settlement opportunities?

As we shall see, the fact that the Fed hasn't yet provided for weekend and holiday wholesale settlements can't be attributed to a lack of public encouragement. The Fed's own, implicit recognition of the gains to be had from weekend and holiday settlements itself dates back to at least September 10, 2013, when it published its "Payment System Improvement - Public Consultation Paper."[27] That paper, which spearheaded the Fed's effort to "improve the speed and efficiency of the U.S. payments system," identified several "key gaps…in the current payment environment" the Fed hoped to address with private-sector payment service providers' help. The gaps included a lack of "near-real-time posting/availability of funds to both the payer's and the payee's accounts" and the "slow, inconvenient, costly nature of most cross-border payments." Although it doesn't explicitly cite limited Fedwire and NSS service hours among the reasons for these shortcomings, the paper recognizes the crucial role of more timely settlement of payments in addressing them.

Alas, the Consultation Paper also equates more rapid settlement with "instant" or "near-real-time" settlement, striking a note that appears ominous in retrospect. For that emphasis foreshadowed an almost single-minded focus on establishing a novel real-time retail payments network, and corresponding neglect of Fedwire and NSS hours reform. Although expanding Fedwire and NSS hours wouldn't itself provide for *instant* payments, with the immediate posting of deposited funds, it alone could be counted on to quickly do away with multiday payment delays in established ("legacy") electronic payments.

In a working paper responding to the Fed's Consultation Paper, TCH, which would eventually develop the United States' first retail real-time payment system, observed that "[i]f financial institutions will be providing end users with access to funds in near real time or intermittently throughout the day, it is important that the system upon which financial systems rely for inter-bank settlement support such fund availability schedules. Otherwise financial institutions are at risk of loss for funds they release prior to release of settlement."[28] Noting that the NSS was then open only on weekdays, apart from holidays, from 8:30 a.m. to 5:00 p.m., and that many "cases which would benefit from faster clearing and settlement…are not confined" to those hours, TCH assumed that despite its references to instant payments the

[27] Federal Reserve Banks, "Payment System Improvement - Public Consultation Paper," September 10, 2013, at https://fedpaymentsimprovement.org/wp-content/uploads/2013/09/Payment_System_Improvement-Public_Consultation_Paper.pdf

[28] The Clearing House, "U.S. Payment System: Recommendations for Safe Evolution and Future Improvements." December 3, 2013, at https://media.theclearinghouse.org/-/media/Files/Research/Final-TCH-Future-Payments-Response-dec-3-13.pdf?rev=286af9a9abcd488db980ae1b34ed119e

Fed's reform efforts would include having "the Reserve Banks…synchronize the National Settlement Service with inter-bank settlement needs of a faster payment system." TCH was then looking forward, in other words, to seeing the NSS operate on weekends and holidays, if not around the clock.[29]

Another important response to the Fed's Consultation Paper came from the NACHA—the National Automatic Clearing House Association—which sets the operating rules for all ACH payments.[30] NACHA expressed broad agreement with the goals set out in that paper. It also recognized "a number of payments use cases" for which real-time alternatives would be best suited. But NACHA also pointed to many other cases that "are either well served today by existing payment system features or that could be better served with incremental improvements to existing features," adding that, unlike such incremental improvements, "a new payment system would…require a great deal more investment on behalf of all in a time of constrained resources." In essence NACHA was encouraging the Fed to go after lower-hanging fruit before setting its sights on more ambitious alternatives. Among other things, NACHA wrote, the Fed "could expand the opening hours of the National Settlement Service to support daily settlement activity with longer opening hours, ideally on a near 24x7 schedule, even on weekends and holidays." But NACHAs advice fell on deaf ears.

The SIPS Report

On January 26, 2015, the Fed responded to feedback it received on its Consultation Paper with a paper on "Strategies for Improving the U.S. Payment System," since known as the SIPS Report.[31] In it the Fed announced a number of specific payment system reforms it intended to pursue, including the provision of "flexible and cost-effective means for payment clearing and settlement groups to settle their positions rapidly and with finality." Faster payments, the report says,

would initially benefit at least 29 billion transactions per year, which is 12 percent of the total for the country. These transactions would be concentrated primarily within person-to-person (e.g., sending money to a friend or relative), business-to-business (e.g., just-in-time supplier payments), person-to-business (e.g., time-sensitive bill payments) and business-to-person (e.g., temporary worker payroll) use cases. Additional faster payments volume would likely occur over time as payment participants take advantage of "faster" features.[32]

[29] As we shall see, having Fedwire operate on weekends and holidays would also have served TCH's needs, and would eventually become its favored solution. In practice, the choice is not important, as any reform that would provide for weekend and holiday Fedwire Service hours would presumably do the same for the NSS, and vice versa.

[30] NACHA comment letter RE: Payment System Improvement: Public Consultation Paper, December 13, 2013, at https://fedpaymentsimprovement.org/wp-content/uploads/2013/12/Response-NACHA-121313.pdf

[31] Federal Reserve System, "Strategies for Improving the U.S. Payment System," January 26, 2015, at https://fedpaymentsimprovement.org/wp-content/uploads/strategies-improving-us-payment-system.pdf

[32] Rachal Schneider and Balafama Longjohn, "Beyond Check Cashing: An examination of consumer demand and business innovation for immediate access to check funds." Center for Financial Services Innovation, June 2014, at

Given its goal of expediting payments, it was only natural that the Fed planned to "[e]xpand the operating hours and other capabilities of the National Settlement Service and accelerate interbank settlement for check payments."[33] It presumably meant as well to expand the operating hours of Fedwire, the NSS's sister service.

So far, so good. But the excessive focus on "instant" payments that first became evident in the Fed's Consultation Paper was even more apparent in the SIPS Report. Perhaps in direct response to THC's comments on the Fed's December 2013 Consultation Paper, the SIPS Report notes that expanded NSS hours would "make it [the NSS] more attractive as a settlement vehicle for private-sector arrangements. An improved service has the potential to empower private-sector innovation around solutions for making payments faster, safer and more efficient." An appendix to the report also refers to the advantages of having the NSS operate on weekends and holidays, with particular reference to the gains to future instant ("faster") retail payments systems: "If a faster payments capability with weekend/nighttime availability is developed in the United States," the appendix says, "extended service hours could reduce the accumulation of unsettled liabilities in the financial system during those hours."

It was, of course, quite proper for the Fed to recognize how expanded wholesale funds transfer opportunities would benefit TCH. What was regrettable was the SIPS Report's failure to even mention the benefits extended Fedwire and NSS service hours *alone* could bring to legacy payment senders and recipients. We shall see how neglect of these broader benefits eventually led Fed officials to set the goal of keeping Fedwire and the NSS open on weekends and holidays aside in favor of that of establishing a special-purpose Liquidity Management Tool that would *only* facilitate instant retail payments.

At the time of the release of the SIPS Report, however, Fed officials had yet to broach the possibility of a limited-purpose Liquidity Management Tool. Instead, whether they had the broad benefits of expanded Fedwire and NSS hours in mind or not, they intended to expand those hours, in three steps or "phases." The first, already in the works, was to be completed that same month, and the second by the end of 2015. Phase three, which was to begin in 2016, would see the Fed "explore the technology, infrastructure and operational and resource changes required to support weekend and/or 24x7 operating hours." In the meantime, a Fed-sponsored Faster Payments Task Force would be established, its task being to come up with and evaluate various private-sector ideas for establishing a 24x7x365 retail real-time payments system.

The Faster Payments Task Force

Convened that May, the Faster Payments Task Force published its "Effectiveness Criteria" for judging the merits of proposed fast retail payments plans on January 26, 2016, precisely one year after the appearance of the SIPS Report.[34] Reiterating the goals

https://s3.amazonaws.com/cfsi-innovation-files/wp-content/uploads/2017/01/26052054/CFSI-Beyond-Check-Cashing-WhitePaper.pdf

[33] Federal Reserve System, "Strategies for Improving the U.S. Payment System," January 26, 2015, at https://fedpaymentsimprovement.org/wp-content/uploads/strategies-improving-us-payment-system.pdf, p. 4.

[34] Faster Payments Task Force, "Faster Payments Effectiveness Criteria," January 26, 2016, at

the Fed had assigned it of coming up with "a ubiquitous, safe, faster electronic solution(s) for making a broad variety of business and personal payments," including cross-border payments, the Task Force determined that solutions it came up with "should either enable Settlement in central bank money, or minimize and strictly control the credit and liquidity risk arising from the use of commercial bank money for the inter-Provider Settlement process."

As the Task Force solicited proposals for establishing a ubiquitous instant retail payments network, the Fed's own payment system reform efforts fell behind schedule. Although it quickly completed the first, very modest phase of its planned expansion of NSS and Fedwire settlement hours, by arranging to have the NSS open an hour earlier, at 7:30 a.m., and close a half hour later, at 5:30 p.m., EST, by the end of 2015 it still hadn't completed the second phase, which was to have the NSS begin processing weekday payments at 9 p.m. on the preceding calendar day.

In January 2017 the Task Force released Part One of its final report, noting that it had received 22 different proposals, 19 of which were still under consideration.[35] Part Two of that report, published that July, described 16 proposals whose developers agreed to make them public, with remarks concerning how the Task Force assessed them.[36] (The detailed assessments themselves were not made public.) Most importantly, the Task Force announced the goal of establishing a national real-time retail payments system *by 2020*, while recommending that the Federal Reserve "begin efforts *immediately* on a 24x7x 365 settlement service," meaning a wholesale service, to support that effort. "[B]roader access to Federal Reserve settlement services," the Task Force observed, "will level the playing field and enhance competition among providers of faster payment services." Real-time payments, it explained,

> *are characterized by two conditions. First, funds are available to end users in real time... In theory, real-time settlement is not necessary as service providers can make funds available to their customers before they receive the funds themselves. However, real-time settlement can minimize the credit risk (essentially that a service provider cannot meet its settlement obligations) that arises from the lag between funds being made available to customers and when settlement takes place between service providers. The second characteristic of faster payments is that the real-time funds availability to end users is on a 24x7x365 basis. Credit risk is therefore minimized if real-time settlement also happens on a 24x7x365 basis. ... The challenge for faster payments in the United States is that a real-time settlement service on a 24x7x365 basis is not available.*

Consistently with these observations, the Task Force's report repeatedly called for the Fed start working toward the goal of 24x7x365 settlements "immediately." The

https://fedpaymentsimprovement.org/wp-content/uploads/fptf-payment-criteria.pdf

[35] Faster Payments Task Force, "The U.S. Path to Faster Payments, Final Report Part One: The Faster Payments Task Force Approach," January 2017, at https://fedpaymentsimprovement.org/wp-content/uploads/path-to-faster-payments.pdf

[36] Faster payments Task Force, "Final Report Part Two: A Call to Action," July 2017, at https://fedpaymentsimprovement.org/wp-content/uploads/faster-payments-task-force-final-report-part-two.pdf

report did not call, on the other hand, for any direct Fed involvement in the design, implementation, or management of a retail fast payment network. Instead, the Task Force encouraged the Fed to leave the creation of a ubiquitous instant retail payments network to the private sector, and to become directly involved in that effort only if the private sector proved inadequate to the task.

Given its mandate, the Task Force's focus on enhancing the efficiency and safety of instant retail payments was understandable. Even so, that focus downplayed the broader benefits of expanded Fedwire and NSS hours, and of weekend and holiday hours especially. So long as expanded Fedwire and NSS hours were regarded as the only or best way to support instant retail payments, the narrow focus did little harm. But once Fed officials began to seriously consider the option of a "Liquidity Management Tool" that would *only* support instant retail payments, their own single-minded focus on such payments caused them to neglect their former plan to arrange for weekend and holiday Fedwire and NSS hours. Yet expanded Fedwire and NSS hours could hasten or otherwise assist both real-time and legacy payments, while a dedicated Liquidity Management Tool would only assist real-time payments. (24x7x365 Fedwire and NSS service hours would render a dedicated LMT altogether superfluous.)

It would, therefore, have been possible for the Fed to follow the Task Force's recommendations while simultaneously expediting legacy payments simply by continuing with the three-phase Fedwire and NSS hours expansion plan set forth in its 2025 SIPS Report. Instead, as we'll see, the Fed chose a very different course.

Blindsided

Despite the Task Force's call for quick action on the Fed's part, it took the Fed until October 3, 2018—15 long months after the Task Force finished reporting—to finally get around to seeking public comment on "Potential Federal Reserve Actions To Support Interbank Settlement of Faster Payments."[37] By then, private sector service providers had finished their part of the Task Force's plan. Of their various proposals, TCH's earned the highest overall score and, after getting green lights from both the Task Force itself and the Justice Department, TCH proceeded to implement it. By the time the Fed's notice appeared in the *Federal Register*,[38] TCH's 24x7x365 real-time retail payments system, called simply RTP (for "Real Time Payments"), had been up and running for a full year, though without the benefit of the weekend Fed wholesale settlement facilities the Task Force had called for.

That the Fed took so long to merely seek public input concerning steps it might take to "enable transfers between accounts held at reserve banks on a 24x7x365 basis" was itself disappointing to TCH and others. But that disappointment was nothing compared to the blow the Fed struck by seeking comment, not just on those steps, which the Task Force had

[37] Board of Governors of the Federal Reserve System, "Federal Reserve Board seeks public comment on potential actions to facilitate real-time interbank settlement of faster payments," October 3, 2018, at https://www.federalreserve.gov/newsevents/pressreleases/other20181003a.htm

[38] Board of Governors of the Federal Reserve System," Potential Federal Reserve Actions To Support Interbank Settlement of Faster Payments, Request for Comments" [Docket No. OP–1625], *Federal Register* 83, no, 221, November 15, 2018: 57351-57364, at https://www.gpo.gov/fdsys/pkg/FR-2018-11-15/pdf/2018-24667.pdf

pleaded for, but on a second "potential action" it was contemplating, namely, building its own real-time retail payment system to compete head on with RTP.

Not surprisingly, the Fed's new proposal elicited some powerful criticisms. Although, according to Fed officials' own reckoning, 320 out of 350 comments the Fed received supported the idea, that seemingly strong majority was deceptive: many supportive comments came from community bankers, and so represented the opinion of but one industrial interest group. Nor was support for a Fed-operated retail fast payment system unanimous even among that group.[39]

In contrast, support for expanded wholesale funds transfer opportunities was close to unanimous by any reckoning. Fed officials themselves claimed that of 230 comments addressing the possibility (for many only commented on the Fed's retail fast payment service proposal), all but five favored it, including many, like Frost Bank, that saw no reason for the Fed to go into the retail payments business.

As we've seen, so far as expediting real-time payments was concerned, the goal of 24x7x365 wholesale funds transfer services could be realized either by further expanding Fedwire and NSS hours or by creating a special purpose Liquidity Management Tool (LMT). It could also be achieved through a combination of both reforms, with expanded Fedwire and NSS hours that still fell short of the 24x7x365 ideal, and a new LMT aiding retail real-time payments during remaining Fedwire and NSS service gaps. Although many of the comments the Fed received offered no opinion as to the merits of an expanded Fedwire and NSS hours versus those of an entirely new LMT, those that did tended to favor the expanded Fedwire-NSS hours alternative. The Fed's Payments Risk Committee, for example, favored a move to 24x7 Fedwire services. "The PRC does not believe," it wrote," that a new type of Liquidity Management Tool necessarily needs to be developed. Instead, the PRC encourages the FRB to consider enhancing the availability of existing FRB infrastructure.[40] Specifically, the PRC favored having the Fed "Extend the Fedwire Funds service operating hours to include weekends, U.S. holidays, and, potentially, evening hours on business days." It recognized that, besides helping RTP participants manage their liquidity, weekend Fedwire services would help expedite all payments that rely on Fedwire transfers for

[39] See, for example, the remarks of Carolyn H. Martin, Senior Vice President/Production Unit Manager of Texas's Frost Bank (comment letter RE: Docket No. OP-1625: Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments, December 20, 2018, at https://www.federalreserve.gov/SECRS/2019/March/20190315/OP-1625/OP-1625_122018_133365_404916555854_1.pdf).

"We do not believe," Ms. Martin writes, "that Real-Time Gross Settlement ("RTGS") service should be pursued by the Federal Reserve at this time. … [T]he Real Time Payments ("RTP") network in which TCH has invested to date should continue to be improved to facilitate faster payment processing. If the Federal Reserve develops additional real-time payment capabilities beyond the necessary liquidity management functions, doing so may (1) set back or undermine the progress that has been made so far, (2) inhibit the ubiquity that the industry seeks to achieve, and (3) increase financial institutions' operating costs as a result of their need to interface with multiple networks."

[40] Payments Risk Committee, comment letter RE: Docket No. OP-1625; Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments, December 14, 2018, at https://www.newyorkfed.org/medialibrary/microsites/prc/files/PRC-Comment-Letter-FRB-RFC-RTGS.pdf

settlement, including cross-border payments. Having Fedwire operate 24x7x365 would thereby bolster the U.S. dollar's "leading role as a settlement currency of choice for international trade settlement and for the funding of cross-border payments."

TCH also preferred expanded Fedwire hours. "Because TCH has built the RTP network to interact with the Fedwire Funds Service," it wrote, "if the Federal Reserve were to implement the Liquidity Service through a means other than expanding Fedwire Funds Service operating hours, the service would require technical changes to the RTP network and result in unnecessary cost and operational complexity." TCH also recommended "expanded National Settlement Service hours," noting that it would "be useful to faster payments services provided via ACH or other future private sector arrangements involving settlement groups."[41]

NACHA's Complaint

But the most forceful arguments for having the Fed focus its efforts on expanding the operating hours of its existing settlement services came from NACHA, which was dismayed to find the Fed contemplating a "new interbank settlement services that would be available only to newly developed instant payment systems" as an alternative to expanded Fedwire and the NSS operating hours.[42] If the Fed kept the NSS open longer, NACHA said,

> *the ACH Operators could conduct interbank settlement during a greater portion of each banking day. Similarly, although the private-sector ACH Operator conducts some ACH file processing on weekends, it cannot conduct interbank settlement until the Fed opens the NSS on the next banking day following a weekend and/or holiday. Again, if the Fed opened the NSS during weekend hours for the current day's date, interbank settlement in support of ACH file processing could be available during those weekend hours.*

Besides doing nothing to expedite ACH payments, NACHA observed, a Liquidity Management Tool dedicated solely to retail real-time payment services would represent "a significant departure from the Fed's history of making its interbank settlement services open and available to all payment systems that want to use it." Because RTP was only just getting established, and FedNow was then, officially at least, but a gleam in some Fed policymakers' eyes, to favor a dedicated LMT over expanded Fedwire and NSS service hours was to risk having the vast majority of payments, including the nations' slowest, remain as slow as ever for some time to come, for there was no telling how long it would take for real-time retail payments to supplant legacy payments, assuming they could ever do so.

Yet the Fed seemed to be leaning toward the dedicated LMT alternative. The Fed's request for comment, NACHA observed,

[41] The Clearing House, comment letter RE: Docket No. OP-1625: Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments, December 14, 2018, at https://www.federalreserve.gov/SECRS/2019/February/20190207/OP-1625/OP-1625_121418_133156_423844567989_1.pdf

[42] NACHA, comment letter RE: Docket No. OP-1625: Potential Federal Reserve Actions to Support Interbank Settlement of Faster Payments, December 3, 2018, at https://www.federalreserve.gov/SECRS/2018/December/20181214/OP-1625/OP-1625_120118_132910_513718164788_1.pdf

ignores the feedback the Fed received in response to the Consultation Paper, as well as the Fed's own broadly written Strategies 4 and 5 in the 2015 SIPS Report. In particular, the Request does not address the detailed comments and specific requests made by NACHA and others in the industry in response to the Consultation Paper to provide enhancements to existing infrastructure.

NACHA reminded Fed officials that it first urged them in December 2013 to "expand the opening hours of the National Settlement Service to support daily settlement activity with longer opening hours, ideally on a near 24x7 schedule, even on weekends and holidays":

Yet, to date [NACHA's comments continue] the only service improvement implemented by the Fed later on the current date has been 30 minutes of extended NSS operating hours, from 5:00 p.m. to 5:30 p.m. ET. The Fed has not committed to implementing the industry's request to extend the NSS operating hours for a longer period of time to support expanded Same Day ACH availability, even though NACHA and others have been in dialogue with the Fed for several years specifically on this point

NACHA's long comment concludes with it once again urging the Fed take steps "that would allow the private-sector ACH Operator to settle ACH transactions later in the day and on weekends," which it might do by expanding both NSS and Fedwire Services to include those times. "By taking these steps," NACHA said, "the Fed would demonstrate its commitment to supporting payment-channel agnostic improvements that will provide benefits to the industry and to a broader range of payors and companies."

A Remarkable Response

In light of support the Fed received for expanded wholesale settlement hours, including weekend and holiday hours, and the controversy raised by its proposed entry into the retail fast-payments business, it would have been reasonable for Fed officials to opt to immediately renew of the Fed's 2015 program for expanding Fedwire and NSS hours, with the ultimate aim of having those services run 24x7x365, while taking more time to consider whether or not to establish its own retail instant-payments service. Yet the Fed's actual decisions, announced ten months after its request for feedback, were precisely the reverse of these reasonable expectations.[43] The Board chose to go ahead with its controversial plan to develop the retail service, later dubbed FedNow, to compete with RTP. And instead of renewing its plan to have Fedwire and the NSS offer weekend hours, it merely promised "to explore" that possibility, as if it hadn't been doing that since 2015. "Subject to the outcome of additional analysis of relevant operational, risk, and policy considerations," the Board wrote, it would "seek public comment separately on plans to expand hours for the Fedwire Funds Service and the National Settlement Service." Fed officials were unwilling, in other words, to do more than *consider* seeking comments *again* on a project they'd just requested and received very favorable comments upon! And this was so despite recognizing, in the same announcement, "that expanded hours for the Fedwire Funds services and NSS would be *the most effective way to provide liquidity*

[43] Board of Governors of the Federal Reserve System, "Federal Reserve Actions to Support Interbank Settlement of Faster Payments" {Docket No. OP – 1670}, *Federal Register* 84, no, 154, August 9, 2019: 39297-39322, at https://www.govinfo.gov/content/pkg/FR-2019-08-09/pdf/2019-17027.pdf

management functionality" (emphasis added). Although they did not say as much, these officials presumably understood as well that expanded Fedwire and NSS service hours were alone capable of expediting legacy payments.

One may search the Fed's August 2019 announcement in vain for an adequate justification for the odd decisions it reached. The Board had had plenty of time to seriously contemplate a further expansion, even a 24x7x365 expansion, of Fedwire and NSS hours, for that possibility had been on the table at least since 2015. It had also received plenty of feedback concerning that possibility from the payment services industry and other groups. The possibility of directly entering the retail fast payments business was on the other hand one that had hardly been broached until the Fed requested comment on it in October 2019. And FedNow was, by any reasonable reckoning, a far more ambitious project than any mere expansion of the operating hours of the Fed's existing wholesale settlement services. Yet the Fed did *not* consider it necessary to spend more time mulling the "relevant operational, risk, and policy considerations" raised by that far more ambitious—and far more dubious—venture![44]

A Third ACH Window

Although the Fed put off yet again providing for weekend Fedwire and NSS settlement hours, it did expand its ordinary business day wholesale settlement service hours beyond those established at the start of 2015. To recall, the Fed was originally supposed to have taken this second step—phase two of the three-phase plan set forth in the SIPS Report—by the end of 2015; and that phase was in turn supposed to be quickly followed by investigations ultimately aimed at providing for weekend and holiday settlements. In the spring of 2019, Fed officials told NACHA that it was finally prepared to implement a revised version of phase two of its 2015 plan. Instead of having Fedwire and the NSS open at 9:00 p.m. ET on the day prior to each weekday, as the Fed once intended, the new plan extended their closing times by half an hour, to 6:30 p.m. ET and 7:00 p.m. ET, respectively. Despite appearances, that extra half-hour represented a considerable improvement, because it sufficed to accommodate a third ACH payments "window." As the Fed explained in its May 9, request for comment concerning the proposed change, there was at the time

> *a morning window with a submission deadline of 10:30 a.m. ET and settlement at 1:00 p.m. ET and an afternoon window with a submission deadline of 2:45 p.m. ET and settlement at 5:00 p.m. ET. The new window, with a submission deadline of 4:45 p.m. ET and settlement at 6:00 p.m. ET, would allow originating depository financial institutions to submit same-day items later in the business day.*[45]

[44] Although Fed officials claimed that competition from FedNow would prevent RTP from a setting fees favoring the large banks that owned TCH, there is no evidence that RTP intended to depart from the flat-fee schedule to which it had committed itself. Nor did the Fed lack other means, besides directly competing with it, by which to persuade RTP to honor its flat-fee commitment. On the other hand, by establishing a rival instant payments network, the Fed made achieving a "ubiquitous" network, meaning one in which all U.S. banks and credit unions would participate, far more difficult. As of this July, of the 5000-odd banks and credit unions, only 800 are taking part in FedNow, and only 625 in RTP.

[45] Board of Governors of the Federal Reserve System, "Federal Reserve requests comment on potential modifications to operating hours for the Reserve Banks' National Settlement Service and Fedwire Funds Service," May 9, 2019, at

Unfortunately, the Fed took so long putting out this request for comment that it had to break its promise to NACHA to have the new hours take effect on September 18, 2020.[46] Not until December 23 did it announce its decision to proceed with the proposed reform, which was then scheduled to take effect on March 19, 2021—more than six years after the Fed was originally supposed to complete phase two of its three-phase Fedwire and NSS expansion plans.[47] By this time, as we've seen, the Fed also appeared to be shying away from reforms that would have Fedwire and NSS stay open on weekends.

Congress Weighs In

The Fed's decision to compete with RTP drew the attention of the Senate Banking committee, which responded by holding a hearing, on September 25, 2019, on "Facilitating Faster Payments in the United States."[48] Noting how Fed officials had said, in the 2015 SIPS Report, that they "would not consider expanding its service provider role unless it determines that doing so is necessary to bring about significant improvements to the payment system and that actions of the private sector alone will likely not achieve the desired outcomes for speed, efficiency and safety in a timely manner," Committee Chairman Mike Crapo (R-ID) mainly wanted to know why the Fed considered competing with the private sector desirable in this case. But the hearing and subsequent written testimony also scrutinized the Fed's decision to postpone still further its 2015 plan to eventually provide weekend and holiday wholesale settlements.

In fact, the two issues weren't independent. As I testified at the time, there was reason to fear that the Fed viewed FedNow as an *alternative* to providing for weekend and holiday NSS and Fedwire transfers, where this preference was at least partly the result of a conflict of interest.[49] Unlike any Liquidity Management Tool dedicated to assisting real-time retail payment systems, providing for weekend NSS and Fedwire hours would enhance the attractiveness of "legacy" retail electronic payments, and ACH payments in particular. This ought to have been an argument favoring that reform. But by deciding to launch FedNow, the Fed was proposing to compete, not just with RTP, but with ACH and other legacy payment systems. Although non-real-time electronic payments necessarily take longer to settle than real-time payments, they can also be considerably

https://www.federalreserve.gov/newsevents/pressreleases/bcreg20190509b.htm

[46] Jim Daly, "Fed Delay Causes NACHA To Postpone a Third Processing Window for ACH Transactions for Six Months," *Digital Transactions*, March 12, 2019, at https://www.digitaltransactions.net/fed-delay-causes-nacha-to-postpone-a-third-processing-window-for-ach-transactions-for-six-months/

[47] Board of Governors of the Federal Reserve System, "Federal Reserve approves modifications to National Settlement Service and Fedwire® Funds Service to support enhancements to the same-day automated clearinghouse service," December 23, 2019, at https://www.federalreserve.gov/newsevents/pressreleases/other20191223a.htm

[48] United States Senate, Committee on Banking, Housing, and Urban Affairs, Hearing on "Facilitating Faster Payments in the U.S.," September 25, 2019, at https://www.govinfo.gov/content/pkg/CHRG-116shrg38550/html/CHRG-116shrg38550.htm

[49] George Selgin, Testimony Before the U.S. Senate Committee on Banking, Housing, and Urban Affairs Hearing on "Facilitating Faster Payments in the U.S," September 25, 2019, at https://www.banking.senate.gov/download/selgin-testimony-9-25-19

cheaper. Aaron Klein observes, for example, that "Banks frequently offer consumers [next day] ACH for free, while costs are in pennies for businesses."[50] Were the Fed to provide for weekend and holiday wholesale settlements, even "slow" ACH payments would always settle within a single calendar day—fast enough, in many if not most cases, to make them attractive relative to anything faster but also more expensive. "The Fed's hesitation to make 24x7x365 Fed settlements available to private payment service providers," I testified, might be due to "its own desire to give FedNow a leg up on other payment networks." Whether that was in fact the case was anyone's guess. But the fact remained that a conflict existed between the Fed's interest in the success of FedNow and its duty of providing for efficient and timely settlement of non-FedNow payments, and that its recent decisions seemed inconsistent with achieving the latter goal.

Although FedNow was the main topic of discussion during the live hearing itself, in their follow-up questions committee members pressed Kansas Fed President Esther George, who lead the Fed's payments improvement initiative, on the matter of expanded Fedwire and NSS hours. Asked by Senator Sherrod Brown (D-OH) how those any sort of Liquidity Management Tool would "benefit banks and private-sector payment operators, including TCH," President George explained that

> *[t]he ability to transfer funds from master accounts at the Reserve Banks to a joint account on a 24x7x365 basis would allow participants in such [RTGS] services to manage liquidity more effectively, avoiding the need for additional funding of a joint account ahead of times when liquidity transfers are not currently possible, such as weekends and holidays. ...Expanded hours for the Fedwire Funds Service and the NSS could also benefit other retail or wholesale payment activities, for example, by enabling additional settlement windows for ACH payments.*[51]

George did not mention check payments, though delayed check settlements were an important cause of the "overdraft fees and late fees and transfer fees" from which Senator Brown, in his opening remarks to the hearing, said he hoped workers might be spared. Nor did she point out that, whereas expanded Fedwire and NSS hours would improve the speed of both legacy and RTGS payments, an alternative Liquidity Management Tool might only serve to reduce the liquidity needs of TCH and, perhaps, other retail RTGS service providers.

One of Senator Toomey's (R-PA) follow-up questions to George, also concerning the Fed's wholesale settlement service hours, was a natural complement to Brown's. "Why," he asked,' "has the Federal Reserve chosen to focus its efforts on launching FedNow, which will take several years to implement, when it could much more quickly advance faster payments by expanding the hours of its existing National Settlement Service?" In reply, George pointed to the

[50] Aaron Klein, "Opinion: Fed's instant-payments system gets you cash fast. Banks don't make money from that." *MarketWatch*, December 9, 2023, at https://www.marketwatch.com/story/feds-instant-payments-system-gets-you-money-fast-banks-do-not-want-that-fa4e26b2. On the other hand, Klein notes, although banks themselves pay only about five cents for a Same Day ACH transaction, they may charge their customers anything from six to twenty times that amount.

[51] United States Senate, Committee on Banking, Housing, and Urban Affairs, Hearing on "Facilitating Faster Payments in the U.S.," September 25, 2019, p. 72, at https://www.govinfo.gov/content/pkg/CHRG-116shrg38550/html/CHRG-116shrg38550.htm

very modest January 2015 increase in those hours, and to the fact that it had sought public comment on a further expansion that May. She did not mention that neither of these efforts provided for any weekend or holiday hours, let alone the 24x7x365 settlements, the advantages of which she recognized. Nor did she mention that the Fed had been promising to pursue the possibility of 24x7x365 wholesale settlements since the publication of its 2015 SIPS Report.[52]

Finally, when asked (again, in follow-up) by Senator Warren (D-MA) whether the Fed had "a time-line for implementing" additional Fedwire and NSS hours, President George said that "additional analysis" was needed and that the Fed was "actively engaging with industry" concerning the relevant details.[53] But wasn't such analyzing and engaging precisely what the Fed has been doing since at least September 10, 2013 publication of its "Payments System Improvement—Public Consultation Paper"? Was six years not time enough for the "relevant details" to be worked out? Is it conceivable that the same Fed officials who took only months to decide to launch an entirely new, real-time retail payments service, needed so much more time to figure out how to keep the Fed's already-established wholesale payments services running on weekends and holidays? George's response suggested that the Fed was treating perpetual analysis as a way of avoiding action. Given the extent of public support for weekend and holiday wholesale settlement service hours, Fed officials could hardly reject that alternative outright. But they could and did opt to give the weekend hours can another kick down the road.

[52] Ibid., pp. 76-77.

The Liquidity Management Tool

Although the Fed chose to indefinitely put-off further expansion of its Fedwire and NSS services, it did ultimately offer a 24x7x365 Liquidity Management Tool to serve the specific needs of RTP participants. Expanded Fedwire or NSS hours could also have served that purpose; and weekend and holiday Fedwire hours were, as we've seen, the alternative that TCH itself preferred, for it would have avoided the need to connect to a new network. More importantly, expanding Fedwire and NSS hours would also have eliminated multi-day settlement delays in legacy payment arrangements—something a dedicated Liquidity Management Tool could not do.

In fact, the Liquidity Management Tool that the Fed ultimately provided was one that could hardly please TCH, for the tool turned out to be nothing other than FedNow itself! As an August 6, 2020 Federal Reserve FAQ sheet explains,

Given that the FedNow Service will inherently be able to support funds transfers around the clock at launch, the Board determined that providing a Liquidity Management Tool as a core feature of the service is the most effective way to address the industry's needs for liquidity management related to instant payments. The tool will be available to FedNow Service participants and their traditional liquidity providers, as well as participants in private-sector services for instant payments that use a joint account at a Reserve Bank. Participants in such private-sector services may choose to access the tool for the limited purpose of liquidity transfers without needing

[53] Ibid., p. 78.

to be a full participant in the FedNow Service.[54]

RTP participants were to be granted partial access to the new FedNow Service, for the sake of instantly replenishing their RTP accounts whenever Fedwire and the NSS weren't operating. To take advantage of the Liquidity Management Tool, RTP participants would still have to incur the fixed costs of connecting to the FedNow Service, in addition to those of connecting to RTP itself.[55] And although RTP participants weren't required to pay the $25 monthly membership fee that full-fledged FedNow participants were originally supposed to pay, this concession has turned out to be no concession at all, because the Fed eventually decided to waive the monthly fee for all FedNow users![56] For banks faced with the decision of which system to join, this arrangement gives FedNow a clear advantage—one it would not possess if the Fed had instead chosen to have its Fedwire and NSS services run on weekends and holidays.[57]

The August 6, 2020 fact sheet went on to state that the Fed was still evaluating "the relevant operational, risk, and policy considerations for both the Reserve Banks and service participants" of expanded Fedwire Funds Service and NSS hours, while promising "to announce any decision regarding the expansion" once it finished. Seven years had, evidently, not been time enough to "finish." Nor would another four suffice.

More Fed Foot-dragging

Spurred-on by the Fed's claim that more analysis was needed, the Fed-sponsored Payments Risks Committee, which had long been encouraging the Fed to move toward 24x7x365 wholesale settlements, began its own "study of the operational, risk, and policy considerations the Reserve Banks and participants of the Fedwire Funds Service should take into account in an Expanded [Fedwire and NSS] Hours operating

[54] Board of Governors of the Federal Reserve System, "Frequently Asked Questions," July 17, 2024, at https://www.federalreserve.gov/paymentsystems/files/fednow_faq.pdf

[55] Federal Reserve System, "Service Details on Federal Reserve Actions to Support Interbank Settlement of Instant Payments." *Federal Register* 85, no. 155, August 11, 2020: 48522-48538. Concerning banks' FedNow "connectivity" options see https://explore.fednow.org/resources/connectivity-at-a-glance.pdf

[56] The waiver, which was originally to last only though 2023, has since been extended indefinitely.

[57] Making it necessary for RTP members to connect to FedNow to manage liquidity when Fedwire isn't operating is but one of several ways in which the Fed appears to have violated the spirit, if not the letter, of the 1980 Depository Institutions Deregulation and Monetary Control Act (DIDMCA). Among its other provisions, the DIDMCA generally calls for the Fed to price its payment services at their full cost so as not to compete unfairly with rival private-sector providers. Before FedNow was running the Fed acknowledged that the monthly and per-transfer fees it planned to charge for it would not suffice to recover the project's costs within the usual ten-year limit. It has since decided to entirely waive the service's $25 monthly fee "in order to support widespread adoption of the new instant payment service" (*FedNow*, "2024 FedNow Service Pricing Now Available," at https://explore.fednow.org/explore-the-city?id=3&building=news-center&postId=47&postTitle=2024-fednow-service-pricing-now-available). No private-sector service provider could afford to take either of the last two steps.

environment" in early 2020. The resulting March 8, 2021 white paper, noting many details Fed officials would have to address in moving toward nonstop Fedwire and NSS settlements, left little doubt that progress in that direction was both urgently needed and eminently practical.[58] "Round-the-clock availability of real-time gross settlement systems," the PRC noted, "provides the foundation to deliver extended flexibility to consumers and businesses for effecting all types of payments transactions, whether domestic or cross-border." By serving to improve the overall efficiency of U.S. dollar payments, 24x7 settlement would "enhance the credentials of the U.S. Dollar as the settlement currency of choice within the global digital economy." For these reasons expanded wholesale settlement hours constitute "an important public policy goals."

Despite this encouragement, the Fed continued its foot-dragging. Two years after the PRC's white paper appeared, after presenting the Federal Reserve's semi-annual monetary policy report, then Fed Chair Jerome Powell was asked by French Hill (R–AR) why the Fed still did not have its settlement systems running all day every day.[59] Powell could only reply that he was "not sure why we're not 24x7." Even if Powell hadn't long served as co-chair of the Fed's payments improvement initiative oversight committee, his answer would have been remarkable.

The Fed was, on the other hand, going full-speed-ahead with FedNow, which it launched in July 2023. Once again Fed officials acted as if they viewed FedNow not just as a rival to RTP's real-time retail payment service but as something that would altogether dispense with check, ACH, and other "legacy" payments. That belief alone could justify Fed officials' failure to proceed at once with reforms aimed at keeping Fedwire and the NSS open on weekends and holidays. Yet neither FedNow nor RTP will ever render "legacy" payments otiose. This is so in part because, unlike the ACH network, neither FedNow nor RTP can handle automatic bill and other "pull" payments.[60] ACH payments also tend to be cheaper than their real-time counterparts. The Fed itself charges financial institutions $0.0035 per ACH payment originated, compared to $0.045 cents per FedNow payment. RTP participants pay the same flat fee FedNow charges. The median cost to a *business* of an RTP payment is $2.50, as compared to $0.40 for next-day ACH transfers.[61] It follows that, for payments for which next-day settlement suffices, ACH is the economical option; and were Fedwire and the NSS to operate on weekends and holidays, ACH transfers would *always* settle withing one calendar day. That would continue to be the case, moreover, even if FedNow or RTP or both

[58] Payments Risk Committee, "Fedwire Expanded Hours White Paper," April 8, 2021, at https://www.newyorkfed.org/medialibrary/microsites/prc/files/2021/prc-fedwire-expanded-hours-considerations-white-paper

[59] United States House of Representatives, Financial Services Committee, Hearing entitled "The Federal Reserve's Semi-Annual Monetary Policy Report, March 8, 2023, at https://financialservices.house.gov/calendar/eventsingle.aspx?EventID=408623

[60] Victor Lopez, "What is FedNow and the Difference Between Push and Pull Payments," *FlexPoint*, n.d., at https://www.getflexpoint.com/blog/msp-payments/push-vs-pull-payments

[61] Peter Lucas, "The ACH's Star Still Burns Bright," *Digital Transactions*, February 1, 2024, at https://www.digitaltransactions.net/magazine_articles/the-achs-star-still-burns-bright/

became truly "ubiquitous," with every bank in the country taking part in them, for the ACH network is itself nearly ubiquitous.

In short, far from shriveling to insignificance as FedNow gathers participants, the volume and value of ACH payments is likely to continue to grow rapidly for years to come, as it has for the last several years. In contrast, U.S. real-time retail payments, which accounted for only 1.5 percent of total U.S. payments in 2023, are likely to remain the small change of electronic USD payments for the foreseeable future, and particularly so if the Fed finally arranges to have Fedwire and the NSS stay open on weekends and holidays, as it should have done some time ago.[62]

Anticipating Excuses

Having solicited another round of public comments concerning the merits of weekend and holiday Fedwire and NSS hours, Fed officials will soon decide whether to finally proceed with that reform or to postpone it yet again. That they will choose at last to proceed with a reform they've managed to put off for more than a decade can by no means be taken for granted; for among its other consequences, the proposed reform will enhance, perhaps considerably, the attractiveness of ACH payments relative to real-time alternatives, including FedNow Service. The same bureaucrats responsible for launching FedNow have every interest in seeing it succeed and to see their controversial decision to launch it vindicated at least to that extent. Yet even now, with ACH payments handicapped by the lack of weekend and holiday FedNow and NSS settlement hours (but aided by a third same-day settlement window), FedNow is fighting an uphill battle with it, at the same time that it must compete head-on with RTP.[63] It is therefore worth anticipating, and countering, arguments Fed officials may be tempted to offer to justify yet another postponement.

One such argument—that Fed officials need still more time to consider "the relevant operational, risk, and policy considerations" raised by any plan to have Fedwire and the NSS operate on weekends—has been rendered threadbare by many years' use. The obvious response to it is that the Fed has already had almost a decade during which to complete the necessary research, and that the expansion it is now considering would give it until March 2027 to do so.[64] If despite this the

[62] James Pothen, "US inches forward on real-time payments," *Payments Dive*, May 1, 2024, at https://www.paymentsdive.com/news/aci-real-time-payment-instant-zelle-fednow-rtp-pix-upi/714918/

[63] For Q2 2024, RTP handled 82 million transactions worth $55 billion ("RTP Network has Billion Dollar Day," News Re;ease, The Clearing House, July 10, 2024, at https://www.theclearinghouse.org/payment-systems/Articles/2024/07/RTP-Q2-Records). The same quarter saw 8.3 *billion* in ACH payments worth $21.6 trillion, including almost 300 million same-day payments worth over $800 billion ("Same Day ACH Reaches New Heights as ACH Network Volume Increases," *Yahoo!Finance*, July 18, 2024, at https://finance.yahoo.com/news/same-day-ach-reaches-heights-130300111.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAF6ihwGVvE-85HzySITrRYxuoisG__xOl0o1Dym-nCDdfGKNjnPLMUPIx9wxPm4pQ2fvLSqPSUz5ieoCS8y91ytu3-DRBTs2BQvwAUsTTIMvDAs7xeFwmN9WSEocu2qco2u8NyIudSF9xx58RSihIwcTERYb6y7_7HSwULydmG1Z)

FedNow has not made its transactions volumes public, but they are unlikely to be substantially greater that RTPs. In any event they haven't been large enough for the Fed to be willing to boast about them.

[64] Fed officials justify this further delay by noting that implementation of weekend hours can only proceed after the migration of the Fedwire Funds

Fed still cannot complete the necessary studies on time, it has only its own gross negligence to blame.

A second line of argument concerns the technical challenges of moving toward full-time wholesale settlements, including the challenge of providing for occasional system maintenance. But as Fed officials recognize, these challenges can be considerably reduced by means of an initial reform that stop short of 24x7x365 services hours, including the one that the Fed is in fact considering, which provides for a two-hour daily system maintenance interval. In any case, the fact that several other central banks have already overcome the difficulties in question should suffice to show that, whatever the challenges of moving toward 24x7x365 wholesale U. S. dollar settlements may be, they are hardly insuperable.

Fed officials also worry that weekend and holiday Fedwire and NSS service hours might contribute to financial crises. "Transferring funds to meet potential rapid deposit outflows during weekends and holidays," they write in their recent request for comment, "could exacerbate liquidity issues for a bank in crisis. This risk could have financial stability implications if large deposit outflows experienced by a single participant created contagion to other participants."[65] But while keeping Fedwire closed may prevent "silent runs" on solvent banks, it has two other undesirable consequences. First, it limits runs on *un*sound banks, and by doing so can expose large depositors to losses. Second, it limits sound but illiquid banks' ability to secure funding from liquid institutions. (It bears keeping in mind here that Fedwire-assisted "silent" runs do not reduce overall banking system liquidity.) The more limited contagion effects tend to be, the more likely it becomes that keeping Fedwire open on weekends does more good than harm. And, despite popular theories that assume otherwise, the empirical record is clear: runs on solvent banks, silent or otherwise, are uncommon.[66]

Service to the ISO 20022 standard, which will not happen until March 2025. They do not mention that the migration was scheduled to be completed in 2023, but was put off after the Fed chose to implement FedNow, so as to relieve banks of the need to adapt to two major reforms at once. The proposed two year delay in wholesale service hours expansion is, therefore, yet another consequence of the Fed's allowing FedNow to shove aside badly needed reform of its wholesale settlement services. See "Fed to delay ISO 20022 implementation until 2025," *Banking Law Journal*, May 24, 2022, at https://bankingjournal.aba.com/2022/05/fed-to-delay-iso-20022-implementation-until-2025/

[65] Board of Governors of the Federal Reserve System, "Expansion of Fedwire® Funds Service and National Settlement Service Operating Hours" [Docket No. OP-1831]. *Federal Register* 89, May 9, 2024: 39613-39621, at https://www.federalregister.gov/documents/2024/05/09/2024-10117/expansion-of-fedwire-funds-service-and-national-settlement-service-operating-hours

[66] A good survey, though from 1997, is Ted Temzelides, "Are Bank Runs Contagious?" Federal Reserve Bank of Philadelphia *Business Review*, November/December 1997, at https://www.philadelphiafed.org/-/media/frbp/assets/economy/articles/business-review/1997/november-december/brnd97tt.pdf A recent study by Sergio A. Correia, Stephan Luck, and Emil Verner covers U.S. bank failures through 2023, showing that their "ultimate cause…is almost always and everywhere a deterioration of bank fundamentals" ("Bank Failures," NBER Working Paper 32907, September 2024, at https://www.nber.org/papers/w32907).

Another recent study, by Marco Cipriani, Thomas M. Eisenbach, and Anna Kovner, of Fedwire flows associated with the March, 2023 failure of the Silicon Valley Bank, shows how the few presumably sound banks that were adversely affected by that event

"Uncommon" doesn't mean unheard of, of course. But there are far better ways for the Federal Reserve to deal with those exceptional cases in which a solvent bank is both threatened by a run and unable to secure funding (despite weekend and holiday Fedwire hours) from other banks. The most obvious of these alternatives is also the most basic Federal Reserve device of all: "last resort" discount window lending, the very purpose of which is keeping solvent banks liquid during episodes of financial distress. The corresponding, obvious solution to the potential problem of weekend and holiday runs on solvent banks is, therefore, for the Fed to expand the hours of its discount facilities as it expands those of Fedwire and the NSS.

A final argument that has been raised for not rushing to keep Fedwire and the NSS open on weekends and holidays also refers to harm that reform might cause, specifically to smaller, "community" bankers. "I find the proposal to expand the Fedwire Funds Service hours to 22x7x365 to be appalling," Jerry Cooksey, Chief Financial Officer, Houston Capital Corporation, writes in response to the Fed's recent call for comment. "This proposal would, if implemented, be severely detrimental to community banks. While Federal Reserve staff may indicate that community banks could opt out of participation in the expanded hours, making that election would put the opting out institution at a severe competitive disadvantage to our regional and national bank brethren." The problem, Mr. Cooksey says, is that, to take full advantage of weekend settlement hours, banks must "incur substantial increases in staffing and technology costs"—costs larger banks can more easily bear than smaller ones.[67]

But shielding smaller banks from competition from larger rivals is no part of the Federal Reserve's official responsibilities. On the other hand, those responsibilities do include taking whatever steps are needed to "stimulate improvements in the efficiency of the payments system," including, when necessary, increasing "the scope of the Federal Reserve's participation in" that system.[68] It would not be proper, therefore, for the Fed to treat complaints like Mr. Cooksey's, however numerous they may

relied on loans from the Federal Home Loan Bank (FHLB) system to preserve their liquidity, with relatively few turning to the Fed. Unlike commercial banks, FHLBs do not earn interest on their Fed master account balances, and so are among the relatively few active lenders to the post-October 2008 Fed Funds market. ("Tracing Bank Runs in Real Time," Federal Reserve Bank of New York Working Paper No. 1104, May 2024, at https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr1104.pdf?sc_lang=en).

[67] Jerry Cooksey, Chief Financial Officer, Houston Capital Corporation, comment letter RE: Docket No. 1831, Expansion of Fedwire Funds Service and National Settlement Service Operating Hours, at https://www.federalreserve.gov/SECRS/2024/May/20240517/OP-1831/OP-1831_050324_159453_303697248530_1.pdf. Mr. Cooksey does not mention the fact, noted by Aaron Klein, that smaller banks also derive a disproportionately large share of their profits from overdraft fees their customers incur owing, to some extent at least, to delayed settlements. See Aaron Klein, testimony on "Examining Overdraft Fees and Their Effects on Working Families," United States Senate, Committee on Banking, Housing, and Urban Affairs, Subcommittee on Financial Institutions and Consumer Protection," May 4, 2022, at https://www.banking.senate.gov/hearings/examining-overdraft-fees-and-their-effects-on-working-families.

[68] Board of Governors of the Federal Reserve System, "Federal Reserve's Key Policies for the Provision of Financial Service, at https://www.federalreserve.gov/paymentsystems/pfs_frpaysys.htm

be, as a reason for not proceeding with the proposed Fedwire Service and NSS hours expansion.

Better Late than Never

Despite the appearance, during the course of the last decade, of "instant" retail payments networks, the overwhelming majority of noncash payments today continue to be made by other means, including by check or ACH transfers; and such legacy payments are likely to remain important for many years to come. Yet such payments can still take days to settle. That is so because they rely on the Federal Reserve's wholesale settlement services, Fedwire and the National Settlement Service, for settlement, and Fedwire and the NSS don't operate on weekends and holidays. Unless this changes, many U.S. payments will continue to be "slow" despite the presence of "instant" payment alternatives.

Federal Reserve officials have been aware of the benefits to be had by having Fedwire and the NSS operate on weekends and holidays for at least a decade. But instead of pursuing that reform, as they seemed prepared to do as long ago as 2015, they have chosen to put it off again and again, particularly by neglecting it in favor of policies aimed at promoting instant retail payments. Consequently, the U.S. now has *two* instant retail payment networks, one of which is run by the Fed itself. But those networks account for only a very small fraction of U.S. payments; and because the two cannot interoperate, the very fact that they must share a limited retail payments market makes it less likely that either will soon achieve the ubiquitous status that was among the key, original objectives of the Fed's faster-payments initiatives. "Legacy" electronic payments continue, in the meantime, to overshadow their real-time rivals—but not without keeping payment recipients waiting days for their check and ACH payments to settle.

Federal Reserve officials can't undo a decade's worth of foot-dragging on wholesale settlement system reforms which, had they been pursued vigorously, might have done away with such multiday settlement delays years ago. But they can stop the foot-dragging, and they should do it now, if not by aiming directly to get Fedwire and the NSS operating 24x7x365, then at least by proceeding with their current proposal to have them stay open 22x7x365 by no later than March 2027.