BY TIM SABLIK

Bringing Payments into the Fast Lane

With the launch of FedNow, the Fed is seeking to promote the growth of instant, always-on transactions

In July, the Fed launched its first new payment service in more than 40 years. FedNow enables money to move instantaneously from sender to recipient 24 hours a day, seven days a week — weekends and holidays included. While there are already mobile payment apps, such as Zelle, Venmo, or Cash App, that appear to instantly transfer funds between users, many of these services still rely behind the scenes on older payment technologies like the Automated Clearing House (ACH) network, which do not settle instantly. Additionally, these apps are focused on person-to-person payments. In contrast, financial institutions can use FedNow to offer instant processing of all types of payments, including person-to-person, business-to-business, and business-to-customer.

The launch is a milestone achievement of work the Fed began nearly a decade ago when it assembled payment industry stakeholders to discuss ways to speed up noncash payments in the United States. (See "Speeding Up Payments," *Econ Focus*, Fourth Quarter 2017.) In many ways, cash remains the ultimate fast payment. It takes seconds to exchange currency, and once done, the transaction is finished. But the use of cash as a payment method has gradually diminished as consumers have increasingly turned to payment cards for in-person and online transactions — a trend that accelerated during the COVID-19 pandemic. According to the Fed's 2023 Diary of Consumer Payment Choice, cash was used in 18 percent of payments in 2022, down from 26 percent in 2019. Similarly, the Pew Research Center found that the share of Americans who said they didn't use cash for purchases in a typical week jumped from 29 percent in 2018 to 41 percent in 2022.

In contrast, the volume and value of noncash payments have soared in recent years. According to the 2022 Federal Reserve Payments Study, the value of core noncash payments grew faster from 2018 to 2021 than in any previous three-year period going back to 2000. (See chart.) Consumers have also increasingly embraced mobile person-to-person payments as smartphones have spread. According to a recent survey by Federal Reserve Financial Services, a collaboration among the 12 Federal Reserve Banks, nearly three-quarters of Americans used mobile payments in 2022, compared to just one in 10 in 2013.

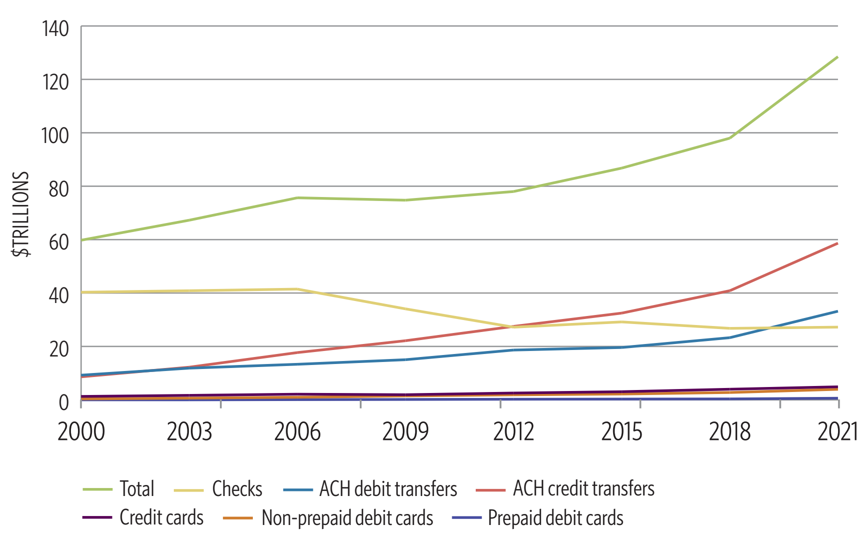
As households and businesses have become accustomed to doing more on the go without delay, there has been growing demand for payments to keep pace.

HOW DOES FEDNOW WORK?

Processing transactions on any payment system involves two main steps: clearing and settlement. In the clearing step, financial institutions exchange details about a transaction, weeding out errors or fraud. In the settlement step, funds are

Growth in Non-Cash Payments

The value of non-cash payments surged from 2018-2021



SOURCE: The Federal Reserve Payments Study, 2022 Triennial Initial Data Release.
NOTE: All estimates are on a triennial basis. Card payments were also estimated for 2016, 2017, 2019, and 2020. Credit card payments include general-purpose and private-label versions. Prepaid debit card payments include general-purpose, private-label, and electronic benefits transfer (EBT) versions. Estimates for prepaid debit card payments are not displayed for 2000 and 2003 because only EBT was collected.

transferred from the sending financial institution to the receiving institution. Historically, most payment systems have used deferred net settlement, meaning that they collect transactions in batches and settle the net balance between financial institutions at certain times of the day to minimize the number of transfers. As technology has improved, it has become more feasible to settle transactions individually in real time. FedNow employs this method of real-time gross settlement.

How does this work in practice? Imagine that Bob wants to send $25 to Alice using FedNow. Bob initiates the payment through his bank. His bank then submits a payment message to the FedNow service, which validates that it meets all required specifications. FedNow then sends the message to Alice's bank to confirm that it can receive the payment. Once confirmed, FedNow debits the master account of Bob's bank (the account it holds with the Fed) and credits the master account of Alice's bank. Both banks then receive messages that the settlement is complete. The entire process is designed to be completed in less than 20 seconds.

As the above example illustrates, FedNow is an interbank settlement service for financial institutions that have accounts at the Fed or a correspondent relationship with an institution that has one. Individuals will not be able to directly access FedNow; instead, financial institutions will need to sign up for FedNow and then offer their customers payment services that use its capabilities. At launch, FedNow will support only credit transactions, meaning that the sender must initiate the payment. Individuals or businesses will be able to request payment through the system but not directly debit funds from a payer's account. Financial institutions will also have the option to sign up only to receive payments.

While FedNow is similar to cash in its immediacy and finality, it is not a central bank digital currency. Like other Fed payment services, it is a system for settling payments between financial institutions. Individuals can access the FedNow service only through a participating financial institution. The Fed has separately been researching a central bank digital currency, which would be a liability of the Fed (in the same way that physical dollars are a liability of the central bank) that the public could access directly. However, it has not announced any plans to issue one, and Fed Chair Jerome Powell has said that any such decisions would require congressional approval. (See "Fed Eyes Central Bank Digital Currency," *Econ Focus*, Second Quarter 2022.)

FedNow will also include a tool to help banks manage the liquidity demands for real-time payment services. Because FedNow allows for transfers to happen at any time and day, banks may need to access liquidity to process payments when traditional sources (such as the Fed's discount window) are not open. Additionally, a real-time gross settlement service like FedNow may require banks to have greater liquidity on hand than they would need for a traditional net settlement service. Under deferred net settlement, financial institutions only need enough funds to process the balance of payments with other institutions at set times. The new liquidity management tool will operate around the clock and is designed to meet such needs. It will also be available to support other private sector real-time payment systems, not just FedNow.

"With the FedNow Service, the Federal Reserve is creating a leading-edge payments system that is resilient, adaptive and accessible," Richmond Fed President and FedNow Program Executive Sponsor Tom Barkin said in a March press release announcing the launch of FedNow in July.

WHOM WILL FEDNOW HELP?

Households and businesses with a large financial cushion can usually manage day-to-day expenses without much concern, making the time it takes funds to move from one bank to another less critical (as long as it happens within a few days). However, those in more precarious financial positions can benefit from faster execution of payments.

According to a recent survey by PYMNTS, a payments data and news platform, and LendingClub, an online financial services company, nearly two-thirds of Americans last year were living paycheck to paycheck. For these households, waiting several days for a paycheck to clear when bills are due means choosing among costly options. They can incur late fees on the bills (which could also mean eviction or loss of services), they can take out a payday loan or use a check cashing service to get access to their money sooner (for a fee), or they can overdraft their bank account (also for a fee). The Consumer Financial Protection Bureau found that frequent overdrafters (those who pay more than 10 overdraft fees a year) account for less than 10 percent of bank customers but pay nearly three-quarters of all overdraft fees — an average of $380 a year. Overdraft revenue fell during the pandemic as some banks reduced their fees, but it still totaled more than $7.7 billion in 2022.

"About half of Americans always have over $1,000 in their bank account and never worry about overdraft fees," explains Aaron Klein, a senior fellow at the Brookings Institution and longtime advocate of payment and financial reform. "The other half frequently have less than $1,000 in their bank account, with balances often falling close to zero. For too long, we've had banking and payments policy run by people in the top half making assumptions that the world operates similarly for the bottom. And the reality is that the bottom half live in a radically different world where basic banking is quite expensive."

Many small businesses face similar challenges. According to the Fed's 2022 Small Business Credit Survey, 94 percent of small business owners reported experiencing some financial challenge over the prior year, such as difficulty paying operating expenses or managing uneven cash flows.

Paychecks sent over FedNow would be immediately available to workers. In addition to helping households living paycheck to paycheck, this is valuable for temporary and contract workers, who could receive payment as soon as a job is completed. FedNow could also speed up federal benefits payments. During the COVID-19 pandemic, federal stimulus funds were disbursed in a variety of ways, including electronic transfer over ACH and mailed paper checks. FedNow would enable such emergency funds to reach recipients instantly. Indeed, the Treasury Department is among the initial group of FedNow participants. Financially constrained households could also use FedNow to pay bills at the last minute, providing greater flexibility and eliminating the risk of late fees due to delays in payment processing.

"If your electricity is going to be cut off at midnight, you'll be able to make a payment at 11 p.m. to keep your power on," says Steve Kenneally, senior vice president for payments at the American Bankers Association. "Similarly, if there is a massive hailstorm in Texas, it could allow an insurance company to send out immediate payments so people could get their windshields replaced that day instead of waiting a week for a check to arrive."

Small businesses would also benefit from more than just increased speed. FedNow uses ISO 20022, a global payment messaging standard that allows additional information about a transaction to be sent alongside each payment. That information is coded in a way that can be easily read by a computer. Today, many businesses still receive invoices separately from payments, and those invoices don't adhere to any standard formatting. This requires businesses to manually sort and pair each payment and invoice to complete accounting records. Through ISO 20022, FedNow promises to automate and greatly speed up this process.

DON'T WE ALREADY HAVE FAST PAYMENTS?

As the Fed's own surveys reveal, 75 percent of households and 83 percent of business are already using fast payments. So why is the Fed launching FedNow?

Paychecks sent over FedNow would be immediately available to workers. In addition to helping households living paycheck to paycheck, this is valuable for temporary and contract workers, who could receive payment as soon as a job is completed.

As it turns out, the Fed already operates another real-time gross settlement service called Fedwire. However, Fedwire is not available around the clock. In 2021, the Fed's Board of Governors extended the operating hours of Fedwire and said it would continue to analyze the "risk, operational, and policy implications of further expanding operating hours." But in a recent post for "The Teller Window" blog, New York Fed researchers Michael Junho Lee and Antoine Martin wrote that the technology behind Fedwire (which originally launched using telegraphs in 1918) was not designed to be updated without interruption, necessitating some downtime. By contrast, FedNow can receive updates while staying open.

There is also a private sector real-time gross settlement system that predates FedNow. The Clearing House, a banking association and payments company formed in 1853, launched the RTP network (which stands for Real-Time Payments) in 2017. RTP works through a joint Fed master account that participant banks prefund. Those funds can then be used to instantly settle payments with other institutions on the RTP network. Hundreds of financial institutions have joined RTP. Use of the RTP network has grown steadily since its launch, although its overall share of noncash payments is still relatively small. In the second quarter of 2023, RTP handled 58 million transactions worth $29 billion.

RTP developed alongside the Fed's efforts to encourage faster payments. In 2015, the Fed created the Faster Payments Task Force, a group of private and government entities convened to make recommendations for faster payment services in the United States. Several countries around the world — including the United Kingdom, Sweden, and South Korea — had already launched instant payment systems. The task force concluded that any new U.S. payment service needed to be ubiquitous, broadly inclusive, efficient, safe, highly secure, and fast. The Clearing House, which had begun initial work on RTP in 2014, participated in the task force and presented RTP as a solution that met those criteria.

In its final report in 2017, the Faster Payments Task Force called upon the Fed to continue supporting the development of fast payment systems. That same year, the Fed updated its rules to allow the creation of joint master accounts, helping to enable RTP. But the task force also recommended that the Fed create its own real-time settlement service to be made available year-round, 24/7.

The Fed has a history as a payment operator going back to its founding. One of its first core functions was to provide check clearing services to member banks. In the 1970s, the Fed became involved in the development of ACH, which used emerging computer technology to automate and accelerate check processing. Today, the Fed operates one of two ACH networks (the other being operated by The Clearing House).

Despite this long history, the Fed didn't make the decision to launch a new payment service lightly. The Monetary Control Act of 1980 recognized that the Fed enjoys many advantages that could allow it to compete unfairly with private payment providers. The law requires the Fed to price its payment services to recover its costs in the long run. In response to that reform, the Fed adopted criteria that any new payment service it created would need to meet. These include that the new service "yield a clear public benefit" and that it be one that "other providers alone cannot be expected to provide with reasonable effectiveness, scope, and equity."

After seeking public comments on the creation of a 24/7 real-time settlement system in 2018, the Fed announced the launch of FedNow in 2019, noting that most of the comments it had received had been in favor of such a move. In its "Additional Questions and Answers" document for FedNow, the Fed's Board of Governors said it had concluded that private sector services alone "were unlikely to provide an infrastructure for instant payments with reasonable effectiveness, scope, and equity." Separately, a 2016 report from the U.S. Government Accountability Office found that, on the whole, the Fed's participation in the payments services market had been good for competition, helping to lower prices for customers.

CHALLENGES AND NEXT STEPS

Launching a new payment service entails confronting new challenges. Fraud is a problem for all payment types, but it has become a particularly hot topic for instant payments because of their speed and finality. Once an instant payment has settled, it can be hard to reverse if it later turns out that fraud was involved. In its initial rollout, FedNow provides tools to help banks mitigate fraud. This includes giving participating financial institutions the ability to reject payments from suspicious accounts and to put limits on the amount of each transaction. The Fed will also provide tools to help financial institutions investigate suspected fraudulent transactions.

Some commentators have also raised concerns that widespread availability of instant payments could exacerbate banking panics by allowing depositors to withdraw funds more quickly at any time and day. In a July 12 speech at the National Bureau of Economic Research, Cleveland Fed President Loretta Mester noted that FedNow participants "could lower their transaction limit, restrict access to the service to certain non-wholesale customers, or change to 'receive payments only' status" to mitigate sudden deposit outflows. "They could also design their own controls to limit the total volume of transfers to manage their risks while serving their customers," she added.

Another challenge for any new payment service is attracting a critical mass of users. Payment systems are subject to what economists call network effects, meaning that the value of the system increases as the number of users increases. A method of payment is most valuable if it is widely accepted. In order for households and businesses to reap the benefits of fast payments, financial institutions need to sign up for FedNow and offer services that utilize its capabilities to their customers.

"Simply turning on the switch to FedNow does not solve the problem of how long it takes a customer to access their funds," says Klein. "The customer has no control over whether or not their bank uses it or the other bank sending them money is using it."

The Fed has noted that while some countries have mandated that financial institutions adopt instant payment services, that is not the case in the United States. The Fed has been working to educate and prepare financial institutions for FedNow, but for many banks, adoption and rollout is anticipated to take time.

"Implementing FedNow will be a big technological lift for a lot of banks," says Kenneally. "So, we expect to see implementation over time rather than all at once."

In June, the Fed announced that 57 FedNow early adopters had completed their testing and certification to go live when the service launched in July. The Fed plans to continue working with financial institutions in the years ahead to support network growth with the ultimate goal of reaching all institutions big and small. **EF**

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