

# AERIAL VIEW

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## Why Were They Surprised? Repo Market Turmoil Tests New York Fed Chief

After years of calm, the financial regulator under fire last year, senior economist John Williams, a Ph.D. economist and Federal Reserve lifer, made his mark inside the central bank with his deep knowledge of interest-rate theory and his role as a policy maker and administrator.

When Mr. Williams won a big promotion to Federal Reserve Bank of New York president last year, senior officials didn't see his lack of financial market insight as a liability. In his first month in New York, he received a sharp rebuke from the market side of the bank.



# DECIPHERING A REPO DISLOCATION

BY KATY BURNE

# A SUDDEN CASH CRUNCH IN MID-SEPTEMBER HAS EXPOSED NEW CRACKS IN US MONEY MARKETS AND IS PUTTING PRESSURE ON THE FEDERAL RESERVE TO DELIVER CONCRETE MEASURES TO SHORE THEM UP.

BY KATY BURNE

If there is one thing that whips up Wall Street, it is any sort of bottleneck in ordinarily placid short-term money markets. So in September, when getting overnight loans in exchange for US Treasuries suddenly became expensive—much sooner in the month and much more dramatically than expected—it created a stress reminiscent of historic funding shortages.

The genesis was a spike in the cost of loans backed by Treasuries in the multi-trillion-dollar market for repurchase agreements. Market forces tend to keep rates on those overnight “repos” close to where the central bank sets its benchmark rate. But on September 16, when the Fed’s target range was 2% to 2.25%, overnight repo rates spiked to nearly 10% intraday (see graph 1), causing the Fed to step in to bring them back down.

The central bank has intervened ever since to keep repos near the federal-funds rate target range, which is now 1.5% to 1.75%. But sorting through why those overnight rates lurched, and what it all means, is now the subject of intense scrutiny on the part of traders, market referees and Fed policymakers.

The answers could have implications not just for the Fed’s ability to maintain orderly markets, but also for domestic corporate borrowing, the cost of overseas borrowers funding themselves in US dollars, and the health of the global economy.

The primary tool the Fed is using is a multi-day repo facility, which takes in bonds and lends cash and which has not been used, other than for small value tests, since the 2008 global financial crisis. Leaving aside the first day of interventions, when the Fed’s

operation opened late due to a technical hitch, demand regularly exceeded the cash offered, right up until the end of the third quarter.

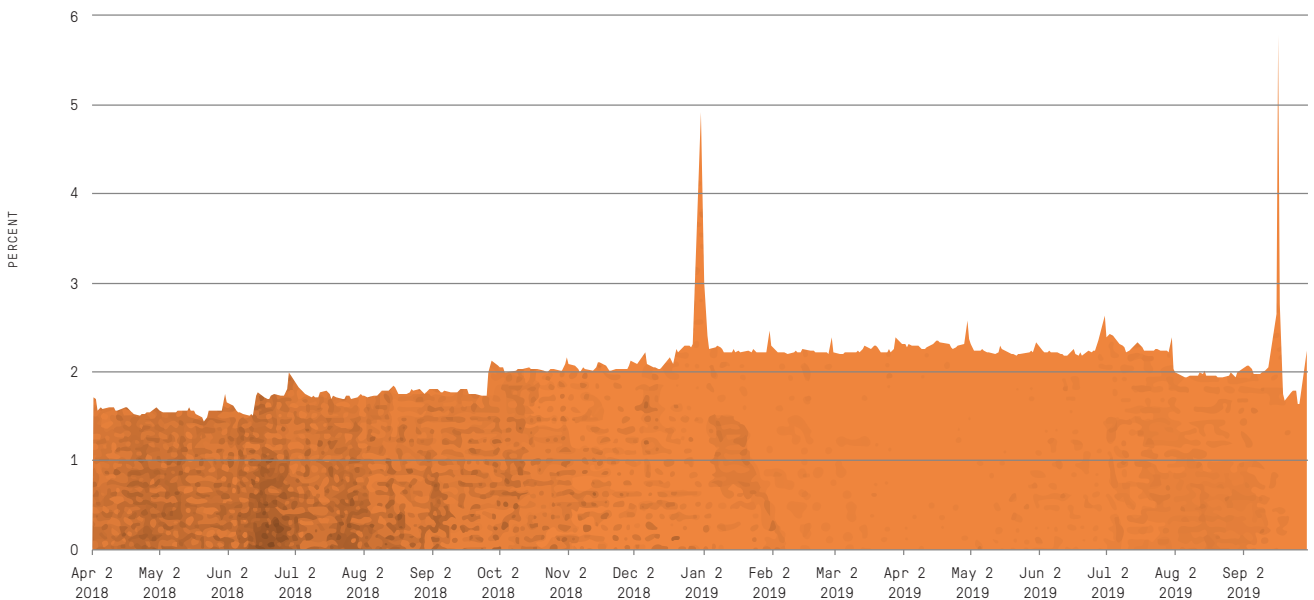
When borrowing rates for cash after quarter end remained elevated, the Fed took a few stabs at addressing the volatility, first with operations lasting through October 10 and again with operations through November 4. In a third update, it said it would conduct daily repo operations, initially sized at \$75 billion, at least through January to prevent a reoccurrence of strains in funding markets over year-end.

Extending operations over year-end is important because last December those strains were especially acute. Additionally, the Fed said it would offer longer-term repos, initially sized at \$35 billion and generally twice a week, into the New Year.

(GRAPH 1)

## REPO RUCKUS

Rates\* on overnight repurchase agreements or “repos” traded well outside of normal range in mid-September, prompting unusual measures from the Fed to quell the volatility.



SOURCE: BNY MELLON

\*DAILY CLOSING LEVEL

Before the Fed announced plans into January, lenders were charging a slight premium of around 3% to borrow cash on December 31\*, when repo markets are typically volatile and lenders tend to hoard their cash ahead of regulatory reporting deadlines.

Attention is now turning to whether the Fed needs make its repo backstops permanently available, perhaps in the form of a “standing” facility. “One implies a long-run fix and the other is a short-run response to a problem,” said Joseph Gagnon, Senior Fellow at the Peterson Institute for International Economics, who last month argued for a standing facility in a paper co-authored with Brian Sack, a former markets head at the Federal Reserve Bank of New York.

The ramifications of such a commitment would be significant. If the Fed injects cash via a permanent facility, it would be inserting itself into money markets in ways that could be difficult

to exit later—at a time when its policy-making decisions are already under the microscope. It still has a daily “reverse” repo facility it started in 2013, which it initially said it wanted to phase out.

The next time the interest rate committee of the Fed has an opportunity to weigh the issue is at its October 29-30 policy meeting. At its June meeting, minutes show the Fed discussed such a standing facility as well as the potential for it to involve some sort of “moral hazard” and the possibility that turning to such a facility could carry a stigma.

### A RECURRING PROBLEM

Many traders think the Fed will do what’s necessary in the long term. Liquidity challenges in repos are expected to continue—similar to the “flash crashes” in Treasuries and equities in recent years—for a host of reasons related to existing market frictions.

Firstly, the Fed left huge sums of cash

on the balance sheets of banks when it purchased piles of US Treasuries and other assets to fight the 2008 financial crisis, but it has since withdrawn more than half of that liquidity, leaving around \$1.4 trillion today (see graph 2). The central bank has not said how much of that cash—called “reserves”—it thinks banks need to hold in their Fed accounts for its policymaking to be effective.

Some believe the Fed doesn’t know the ideal amount of reserves for smooth market functioning because it has not needed to figure it out for more than a decade. Others think that point can’t be known in real time, but can be deduced when strains become evident.

“To estimate the required amount of reserves the Fed needs to target is still an ongoing discovery,” says John Velis, FX and macro strategist at BNY Mellon. “It can only stand by ready to intervene as it sees necessary.”

The Fed has been trying to weigh

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the level of cash demand as it looks to manage the size of its bond portfolio longer-term. As of August, it had stopped shrinking that pile of assets, which had grown to around \$4 trillion post-crisis, preferring to maintain the current size of it by reinvesting proceeds from maturing bonds into other existing assets.

Now, the portfolio is set to grow again, although the Fed has described the new purchases as distinct from the asset purchase programs it has used to date in the post-crisis era. On October 15, the Fed started buying short-term Treasuries to the tune of an initial \$60 billion a month, and committed to these purchases into the second quarter, on top of the existing bond reinvestments and repo operations. An increase in the Fed's balance sheet with Treasury bills, besides being positioned as something different than quantitative easing, is coming a full quarter sooner than the median expectation among bond dealers who responded to a New York Fed survey in September.

Growing the portfolio again also would be helpful at a time when the US is issuing more government debt to

fund the federal deficit and when the volume of repo trades backed by Treasuries has risen 25% in the past year alone, according to Fed data. Projections for increased Treasury borrowing could require the market to absorb tens of billions of dollars in extra issuance each month next year.

A second reason the repo reverberations could continue is that post-crisis rules targeting the amount of leverage, or borrowed money, at banks have made it less attractive for them to act as middlemen on repos. Since the Fed's repo facility is only available to the two-dozen “primary dealers” eligible to trade directly with the central bank, its efficacy depends on the take-up from those firms. But given the leverage rules, those firms may be unwilling to take on even low-risk repos or they may be using Fed cash to solidify their own funding, making them poor conduits for that liquidity.

There are some subtle changes the Fed could make to help redistribute that cash, including allowing counterparties other than primary dealers to access the overnight repo facility. In the June minutes, the Fed discussed

allowing banks to participate.

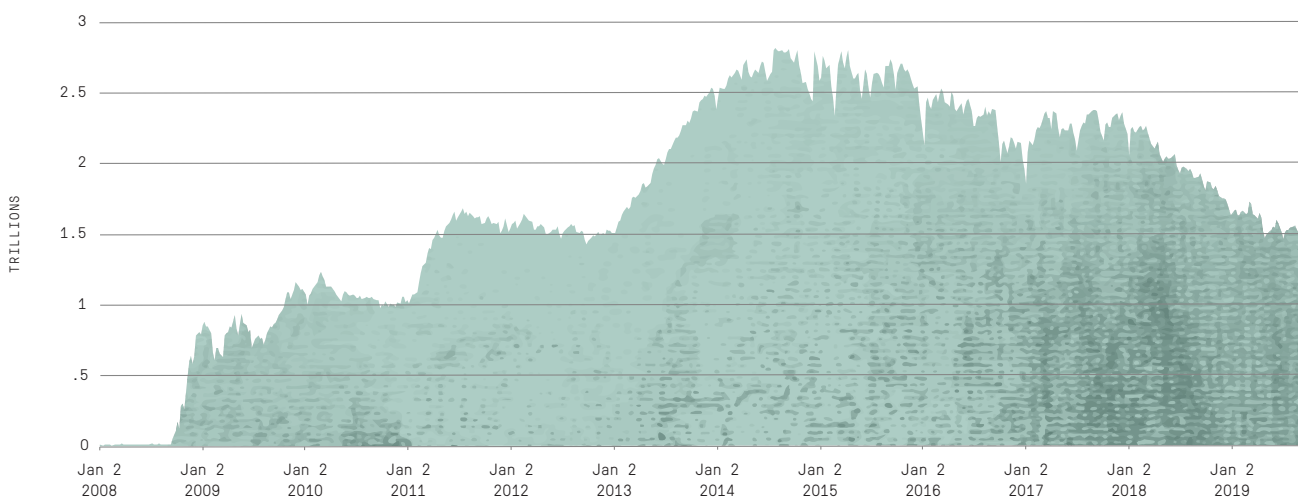
A third reason the gyrations may persist is that there are more unknowns to assess. Among the known precursors to the panic: money market funds had been expecting the Fed to cut rates on September 18, and had been investing their cash longer term, leaving less cash invested in overnight repos. At the same time, corporations were pulling cash out of money market funds in advance of a September 16 tax payment deadline. Added to that, \$78 billion of US Treasury note auctions from the previous week were scheduled for settlement, along with \$177 billion of bills, so firms needed ample cash to pay for the paper they had bought.

But the spike in overnight repo rates was far more severe than could have been explained by these factors alone. Some pundits speculated that there could have been an unusually large withdrawal from a domestic US bank. “We haven't seen a rate squeeze like that in years,” said Scott Skyrms, Head of Repo at Curvature Securities. “My theory was there was something hidden out there.”

(GRAPH 2)

## PRESSURE TANK

The liquidity banks have on their balance sheets, called reserves, has fallen by more than half since its post-crisis peak.



SOURCE: BNY MELLON

### A PATH FORWARD

Whatever the causes of the dislocation, repo borrowers need to consider what to do in future liquidity shocks. For those with cash to lend, or borrowers with inventory to finance, facilities like BNY Mellon's sponsored cleared repo program are a useful alternative to accessing the regular repo markets.

The program allows participants to a repo, after agreeing on the details of the transaction, to face a clearinghouse directly so they can reduce their counterparty risk. BNY Mellon sponsors the trades into the Fixed Income Clearing Corp., obviating the need for either the borrower or the lender to become a full member of the clearinghouse itself.

More recently, and at least in part because of post-crisis regulations like the Supplemental Leverage Ratio, there has been a significant increase in the use of BNY Mellon as a middleman on sponsored cleared repos. Periodic spikes in repo rates, such as those encountered in mid-September,

suggest that such solutions are beneficial to the marketplace and could be more widely used.

"Our sponsored cleared repo offering is already established and volume-tested, allowing us to continue to alleviate some of the strain in these markets," says Mark Haas, Head of Principal Securities Finance at BNY Mellon.

Now, the bank is working with FICC to expand its sponsorship capabilities beyond overnight repos to include term repo transactions, and potentially to add other asset classes beyond US Treasuries as collateral.

As if the repo situation wasn't tense enough, the industry has another problem on its mind. Its chosen replacement for the storied London interbank offered rate (LIBOR), a benchmark for US dollar loans between banks, is a rate based entirely on repos, meaning the new rate has been bouncing around wildly, too.

A Fed-sponsored committee has suggested replacing LIBOR with the Secured Overnight Funding Rate

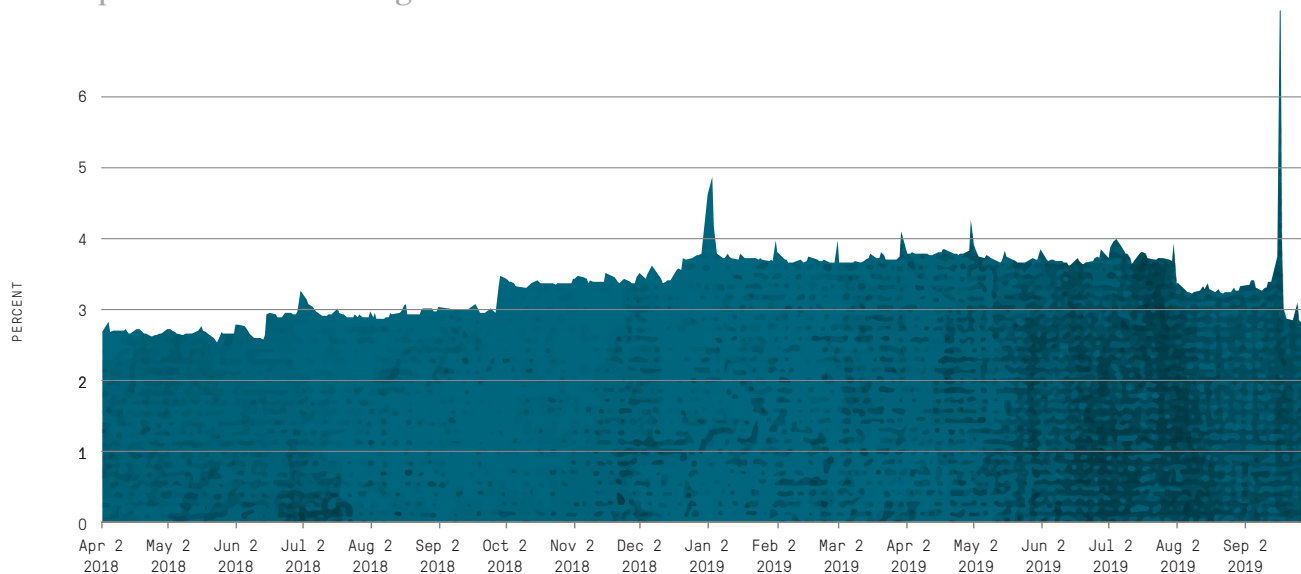
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(GRAPH 3)

## IN THE LURCH

The new benchmark tipped to replace Libor, called SOFR, is backed by repos so has experienced some swings of its own.



SOURCE: BNY MELLON

(SOFR). But unlike LIBOR, which is based largely on judgment, SOFR is based on a blended batch of more than \$1 trillion in daily repo transactions backed by US Treasuries. When repos spiked, SOFR hit 5.25% on September 17, up from 2.42% the day before (see graph 3).

Some are worrying that this volatility will complicate the Fed's ability to get financial institutions interested in using SOFR—even though many would be using a 90-day average and not the overnight rate. “This episode is a shot across the bow regarding funding assumptions,” says Robert Lynch, Head of Rates Trading for BNY Mellon Capital Markets, LLC, a registered broker dealer.

Either way, it is imperative for the Fed to understand the intricacies of these funding pressures because the US Treasury can ill afford hurdles as it borrows more, and the Fed has stated that its long-standing aim is to hold primarily Treasuries in its own portfolio.

In a September 23 speech, New

York Fed President John Williams said his bank's actions, “Had the desired effect of reducing strains in markets, narrowing the dispersion of rates and lowering secured and unsecured rates to more normal levels relative to other benchmarks.” At the same time, he said it was, “equally important that we examine these recent market dynamics and their implications.”

Even if the Fed gets its arms around the problem, it may not come without some hiccups. Well-meaning regulations have often had unintended consequences and repo market ripples have caused big problems in the past.

Even today, repo's presence at the core of money markets makes it possible for issues to ripple out, especially if bank reserves and market capacity could be lower than in the recent past.

In an April speech, Lorie Logan, Senior Vice President at the New York Fed, said she favored a regime with ample reserves because it could act as a buffer, cutting down on the need to tightly manage reserves from day

to day and helping liquidity shocks to “be absorbed without the need for sizeable daily interventions by the central bank.”

The Fed must be careful to understand the impact of its next actions, lest changes in critical pieces of plumbing under Wall Street's securities markets contribute to pressures elsewhere.

“There is risk in the system and when the Fed pushes risk out of one compartment, they just push it into another,” says Skyrm. ●

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