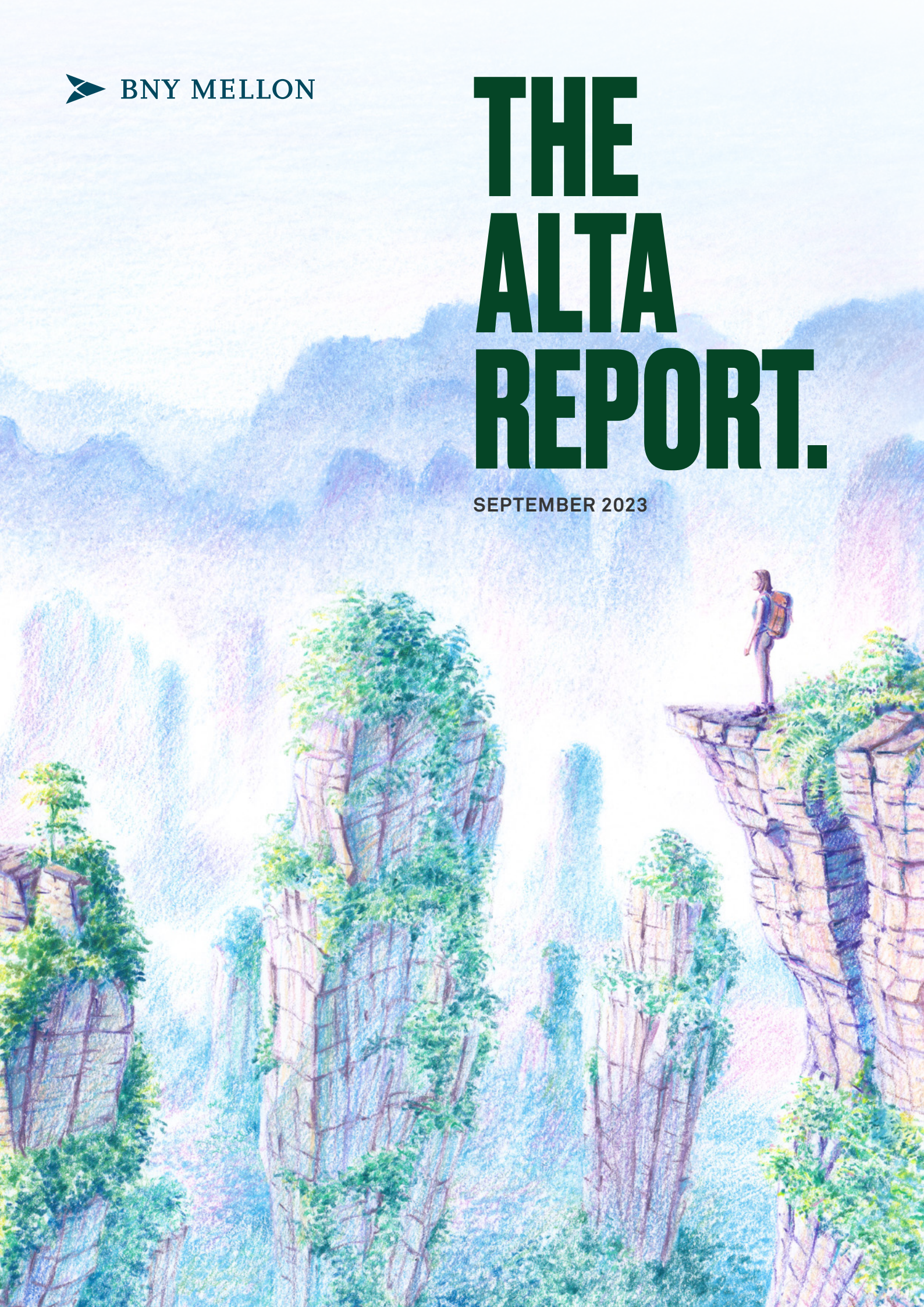


THE ALTA REPORT.

SEPTEMBER 2023



Welcome to THE ALTA REPORT.

Welcome to the Alta Report, a quarterly compilation of BNY Mellon perspectives derived from *our unique vantage point* at the intersection of markets. Touching 20% of the world's investable asset flows gives us insight into key trends, helping you navigate the future arc of markets and macro developments.

Our vantage point comes from:

TOUCHING

20%

of the world's
investable assets

SAFEKEEPING

\$46.9T

in assets (custody
and/or administration)
as the world's
largest custodian

SETTLING

\$12.3T

in U.S.
government
securities daily

SERVICING

\$6T

in U.S. and
international
collateral

FINANCING

\$4.5T

in lendable
securities

PROCESSING

\$2.4T

of U.S. dollar
payments daily

MANAGING

\$1.9T

in assets for our
asset & wealth
management clients

INVESTING

\$286B

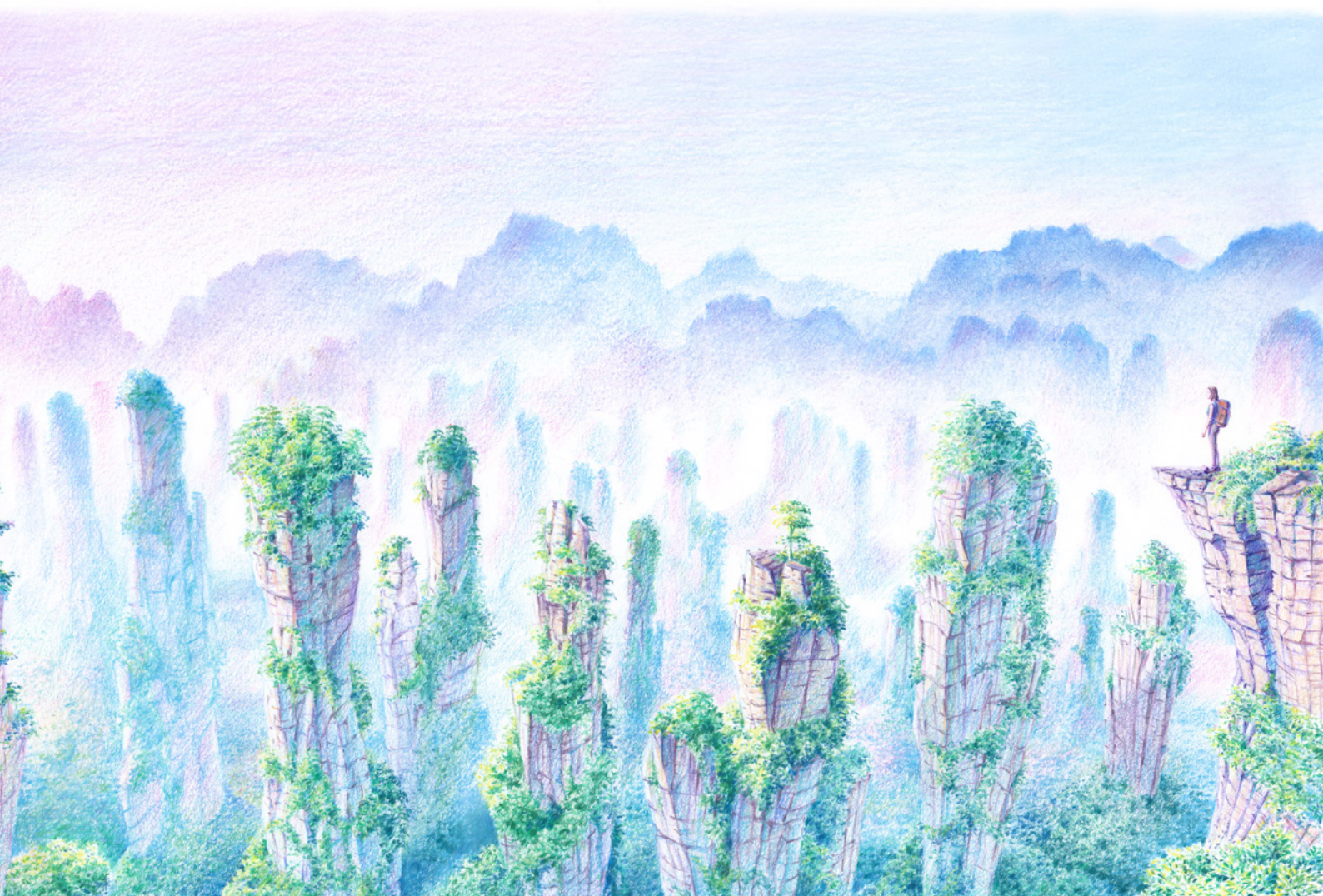
in client wealth
management assets

Change for the Better

Sometimes change is the only constant. The growing digitalization of treasury services is the latest example of that. So is the proliferation in payment types we process, as clients transition more aggressively away from paper checks to electronic methods.

Another transformation we're seeing is the double-digit growth rate in the number of broker dealers and non-banks paying firms to service their consumer clients directly with checks and debit cards, proving that the concepts of open banking and banking-as-a-service are trends to watch.

The changing geopolitical winds are also impacting our clients, specifically the flow of currencies into different markets.





Renminbi Payments into China Rising

We have already seen our share of renminbi (RMB)-denominated transactions into China from January to July this year outpace the renminbi share seen in the full year of 2022, while our U.S. dollar share of comparable transactions into China has fallen. This furthers a trend earlier reported by the International Monetary Fund in March, which cited payments data from 125 economies on the Swift messaging system and found that the median use of RMB in cross-border transactions rose to 20% in 2021 from zero in 2014.

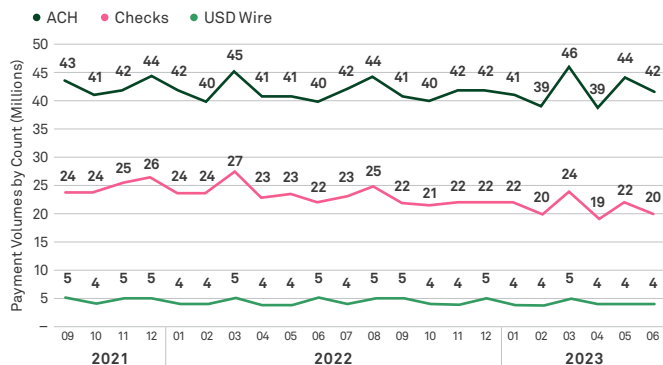
Check Declines Accelerate; ACH Usage Grows

BNY Mellon Treasury Services is on track for a 7.6% decrease in the number of paper checks we are processing this year for clients versus a year ago. That's a slightly higher rate than the industry as a whole, which Federal Reserve data show was seeing an average yearly decline of 7.2% since 2018. The potential for us to process 255.1 million paper checks this year—about 21 million fewer than in 2022—would mean a carbon footprint that is roughly 90,200 pounds lower. Since 2019, we have seen a 21% decline in checks on our platform, or a 289,000lb reduction in carbon.



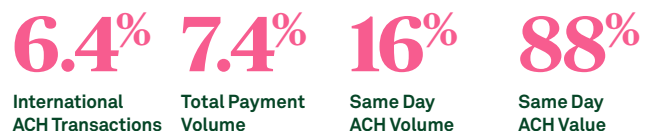
At the same time, electronic payment methods are becoming more popular. We saw Automated Clearing House (ACH) origination payment volumes rise 7.4% in 2023, partly benefitting from same-day individual payment limits increasing to \$1m from \$100,000 in March 2022. Our same-day ACH volumes, by transaction count, rose 16% in 2022 and their U.S. dollar value rose 88%. This was slightly higher than the overall volumes reported by the National Automated Clearinghouse Association (NACHA), which governs industry usage of the ACH network and reported a 15.5% increase in those volumes in 2022. Our international ACH payment volumes rose 6.4% in 2022 while NACHA reported a 2.9% decline.

Payment Volume Trends at BNY Mellon



*Representative of organic and consistent client payment activity, excluding temporary increases and declines.
Source: BNY Mellon Treasury Services

ACH Origination Growth in 2022



*The statistics presented are based on BNY Mellon YoY ACH origination data, excluding outliers.
Source: BNY Mellon Treasury Services

Digital Transformation Top of Mind

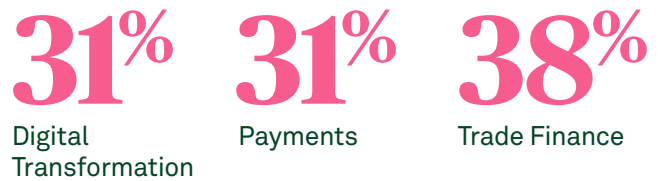


There has been a steady increase in clients (banks and corporates) using our application programming interfaces (APIs) to access and manage their payments and liquidity. Year-to-date, clients have made twice the number of payment requests from a year earlier on our APIs. These tools aim to improve the end-customer experience by providing real-time domestic payment execution, streamlining the way that low-value FX payments move from payors to receivers, as well as providing reporting capabilities, status updates and data validation.

We think that by providing banking clients one point of access to a full suite of payment solutions, which can be integrated into their own banking APIs, mobile apps and online portals, we can help them better compete with fintechs. These solutions should give end-users 24x7 payments to multiple markets, seamless delivery and instant response on notifications, as well as other benefits. Our new Bankify solution gives consumers more ways to pay for small-value items using apps that take money from their bank accounts, instead of debit or credit cards.

Digital transformation is also a top client concern as our clients undergo payment-method transitions, according to our surveys. At a client event in Asia, 31% of attendees we surveyed said digital transformation was one of the topics they were most interested in, tied with payments and behind trade finance.

Digitalization: Top Client Concerns



*Survey taken at 2023 client APAC meeting.
Source: BNY Mellon Treasury Services

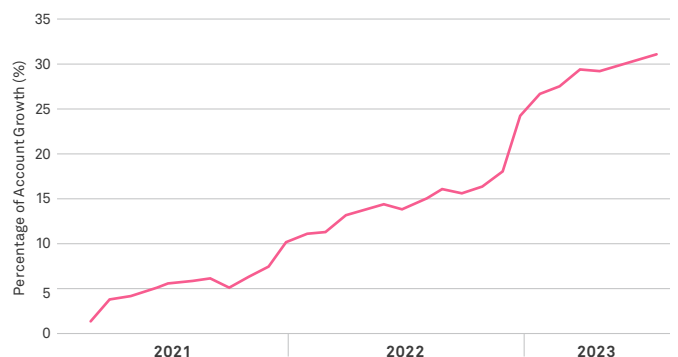
Retail Brokers Push Bank-Like Services

Retail brokers and other non-banks have seen notable success in opening consumer-oriented investor accounts for clients with features such as check writing, debit cards and ACH payments. Those services are then processed via traditional banking channels like ours. There has been a 31% increase in the number of consumer accounts we have opened on behalf of non-bank clients between January 2021 and June 30, 2023, indicating that these services are a value-add in the relationship and not only in demand from banks.

An increasing number of consumers are also using debit cards attached to these retail brokerage accounts, our data show. The percentage of accounts that are active on our platform has ranged from 23%-26% since 2021, mostly related to investible funds attached to U.S. tax-advantaged Health Savings Accounts (HSA). While our clients have been touting these offerings, many of the

debit cards remain inactive (only 28% are registering transactions within the past 60 days) because consumers cannot spend the money they set aside in HSA accounts if they do not have qualifying medical expenses in a given calendar period. A key advantage of these accounts is that the money can remain invested while it is unused. We are working with clients to help them understand the card usage rates and support a frictionless customer experience.

Retail Broker Debit Card Account Growth



*Banking Transaction Services (BTS) is a service we sell to broker dealers and other non-banks, allowing them to offer check clearing, ACH and card services in competition with retail banks.
Source: BNY Mellon Treasury Services

Money in Motion: From Balance Sheets to MMFs to Repos

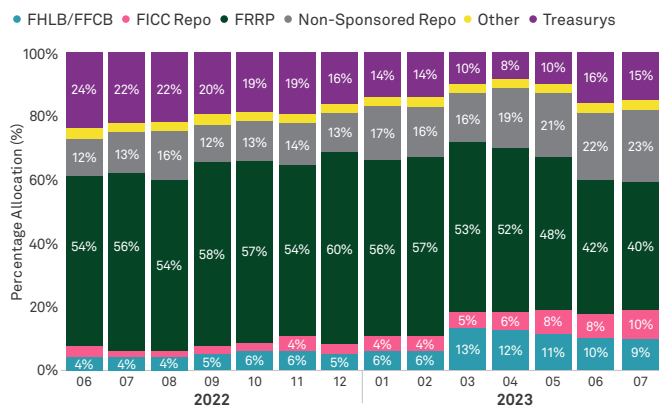


With uncertainty still high, cash management and short-end interest rates are a strategic priority for the first time in years—and across more desks than usual. We have seen money leaving weaker balance sheets for stronger ones, although deposits pricing remains under pressure. Cash oriented investors have also flocked more aggressively into government money market funds (MMFs), attractively priced repos and Treasuries.

Tiptoeing Out

However, many are starting to rotate into longer tenor short-end products that should perform better if the Fed nears completion of its current rate-hiking cycle. In fact, institutional Treasury repo and government MMFs have been significantly reducing their overnight Fed reverse repo program (RRP) positions and moving that cash into T-bills that mature further out on the curve. The Treasury positions in those funds had weighted average maturities of 55 days as of July compared with a low of seven days as of March per our LiquidityDirect platform.

Treasury/Govt MMF Allocations by Instrument



Source: BNY Mellon Liquidity Services

The U.S. Treasury is issuing large quantities of new debt into this latest rotation, which has been absorbed mostly without a hitch because increased supply has led to more attractive yields. Much of the money entering T-bills, where rates recently became attractive especially in two- to 13-week paper, is coming out of the Fed's RRP, which has fallen to \$1.5t in early September from \$2.4t in March.

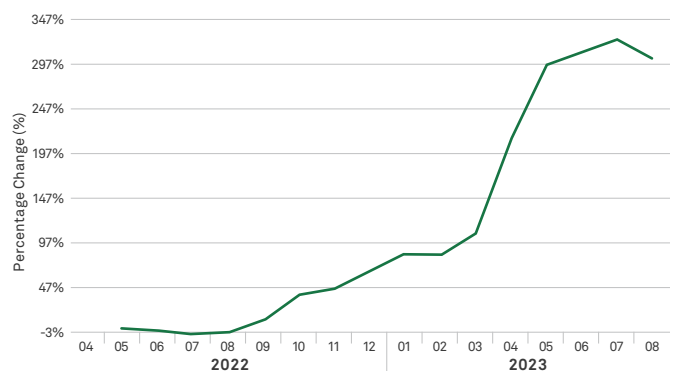
Switching Repos

Treasuries of all stripes have been in extremely high demand. Our Pershing clearance platform saw a 147% year-over-year increase in the par value of U.S. Treasuries traded by more retail-oriented broker dealers and registered investment advisors in the secondary market during the first half of 2023 vs the first half of 2022 (\$219b vs. \$89b). The year-over-year increase for more institutional-oriented dealers and hedge funds was 20%.

In addition to cash moving from RRP to T-bills, we are also seeing money market funds moving cash from the RRP into cleared repos that we sponsor into FICC, where rates are competitive. We have seen balances of these cleared sponsored FICC repos rise 300% from year-ago levels, which may be due to an expected clearing mandate for Treasury-backed repos coming this fall.

Overall, there remains considerable uncertainty over what the Fed will do next—whether it will raise rates again and how long they will stay there—meaning that a lot of the short-end money is moving from one Fed meeting to the next.

Growth in Sponsored FICC Repo Volumes



Source: BNY Mellon Securities Finance

For more information, email:
TheAltaReport@bnymellon.com

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