GLOBAL MARKETS ANALYSIS
Monetary and Capital Markets

US Money Market Fund Developments in 2022

TUESDAY, FEBRUARY 21, 2023

OVERVIEW

- MMF are large liquidity repositories, pooling cash from households, financial institutions and non-financial corporations and investing it in short-term funding instruments. The main types of MMFs are Treasury, Government and Prime funds, based on the focus of their investments (respectively in Treasuries, Treasury/repo, and private short-term paper). With more than $5.1 trillions of Assets Under Management (AUM), US MMFs can affect funding conditions in money markets and are direct counterparties to the Federal Reserve, via the Reserve Repo (RRP) Operations. US MMFs use the RRP to invest liquidity, typically in excess of the liquidity invested in the markets.

- This special feature reviews main developments in US MMFs over 2022, a year of sharp policy rate hikes by the Federal Reserve, and highlights the response of MMFs.

- MMFs adjusted their yields to the rising policy rates almost one to one. Despite the strong rise compared to other alternatives, such as banks, a much-anticipated inflow of investors into MMFs did not materialize. Total AUMs increased little over the year, as outflows from Government MMFs roughly balanced inflows into Prime MMFs. Outflows from government MMFs were primarily driven by institutional investors, while Prime MMFs saw inflows mostly from retail investors, who are not affected by the 2021 SEC MMF reforms[1]. Despite timid net inflows, MMF total assets remain at record high levels.

- MMFs adjusted their asset composition to the rising interest rate environment significantly: MMFs holdings of Treasuries dropped, while repo holdings increased by a commensurate amount. Most of the repo increase was not private, but with the Federal Reserve (via the overnight Reverse Repo -ON RRP- Operation). As a result, the average maturity and life of their assets (Weighted Average Maturity – WAM and Weighted Average Life – WAL) dropped to very low levels compared to recent history.

- Accordingly, MMF participation in the ON RRP reached record levels. MMFs increased their overnight RRP participation dramatically, amid uncertainty about the future path of policy rates and elevated rate volatility for most of 2022. MMFs were eager to minimize interest rate risks by investing in overnight repo with the Federal Reserve. MMFs are the dominant counterparties in RRP, with a share of more than 90% of the total participation. Government MMFs are by far the largest participants, with Treasury and Prime MMFs also increasing their participation in 2022. Over the year, the top-five Fund Families accounted for more than 50% of the MMF take-up, suggesting a high concentration of holdings.

- Looking ahead, RRP participation is expected to be adjusted downwards. In a rising rate environment and with ongoing quantitative tightening draining liquidity from the system, MMFs will eventually invest on higher-yielding market alternatives and return to the markets much of the liquidity currently parked at the Federal Reserve. The dynamics and timing, however, are uncertain. A lot will depend on bank competition for deposits, the issuance volumes of other short-term funding alternatives, and the outlook for monetary policy.

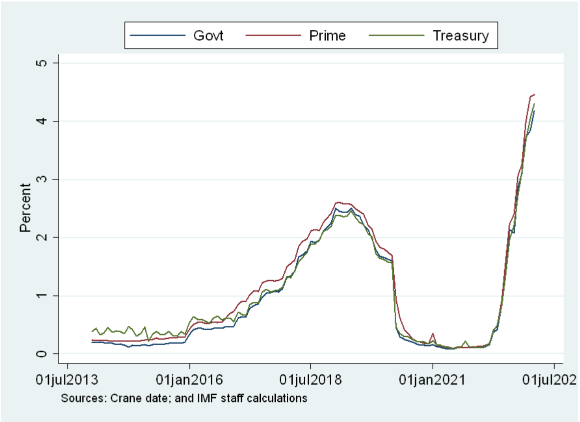
- Finally, we take a special look at sponsored repo, an area of increased focus by policymakers. In September 2022 the Securities and Exchange Commission (SEC), issued a proposal to expand central clearing to the US Treasury cash and repo market in order to improve liquidity in the Treasury market[2]. MMFs are major participants in the Tri-party Treasury repo market, which is subject to the SEC proposal. Although MMFs are not direct counterparties to the FICC (the only central counterparty clearing platform available for Treasuries), they can centrally clear their repo trades via dealer sponsoring. Our data shows that so far the sponsored repo market, albeit growing, remains a very small part of repo transactions, making the transition to the SEC proposal challenging.

This Monitor was prepared by Kleopatra Nikolaou, Deepali Gautam and Yiran Li.

Figure 1. MMF Holdings – Assets under Management.

US MMF yields rose sharply in 2022, closely following monetary policy rates.

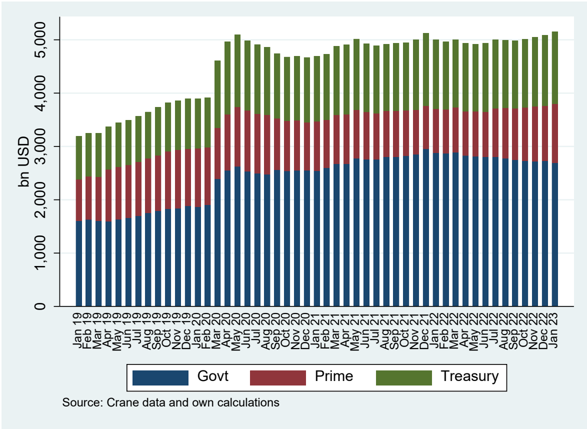
1. US MMF yields by Fund type
[in billions of US Dollars]



- The yields of US MMF saw a dramatic rise since March 2022, following closely monetary policy hikes.
- The increase was notable for all Fund Types, and for Prime Funds in particular

Nevertheless, MMFs saw moderate inflows.

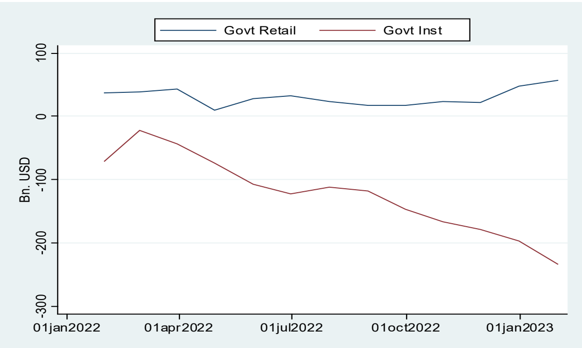
2. MMF Total AUM by Fund type
[in billions of US Dollars]



- MMFs Assets Under Management increased little overall in 2022, despite MMFs offering yields considerably higher compared to banks.
- On net, outflows from Government Funds largely offset inflows into Prime funds
- Total AUMs for MMFs are at historical heights at more than %5.1 trillions.

The decline in government MMFs was driven by institutional investors.

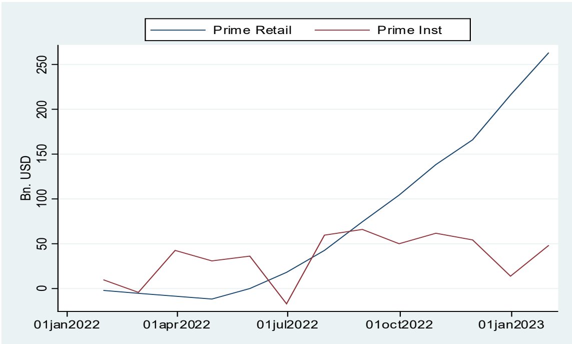
3. YTD cumulative change in Government MMF AUMs, by investor type
[in billions of US Dollars]



- Looking at the composition of investors, government MMF outflows in 2022 were mainly driven by institutional investors.
- Retail investors cumulative flows were broadly stable and positive, albeit small.

While retail investors drove the inflows into prime funds.

4. YTD cumulative change in Prime MMF AUMs, by investor type
[in billions of US Dollars]



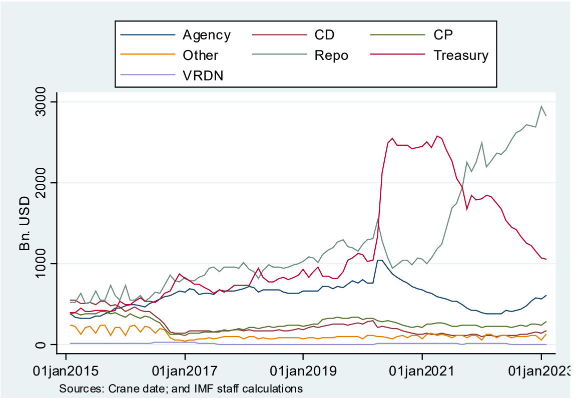
- On the contrary, prime MMFs saw inflows, mainly from retail investors, who are not affected by the 2021 SEC reforms.
- Contrary to government funds, prime funds saw some inflows from institutional investors. While this appears counterintuitive given the SEC reforms, anecdotal evidence suggests these inflows were driven by internal liquidity management processes within the Fund family, not affected by SEC reforms.

Sources: Crane data and IMF Staff calculations.

Figure 2. Asset composition of US MMFs.

MMFs focused their investments on Treasuries and Repo

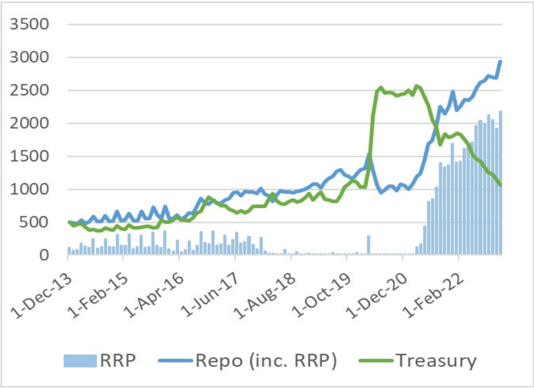
1. Total AUM by asset type [in billions of US Dollars]



Sources: Crane date; and IMF staff calculations

The divergency between Treasury and Repo increased, as MMFs turned over to the RRP operations of the Fed

2. Treasury, repo (including RRP) and RRP holdings [in billions of US dollars]



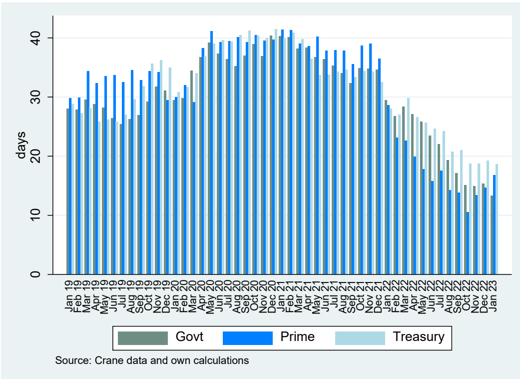
- In 2022 the concentration of MMF assets in repo increased dramatically and the diversification of assets largely declined.
- Repo became the main category of MMFs holdings, while Treasuries, the second major holding, declined dramatically.
- Agency debt changed little on net in 2022.

- The increase in repo was mainly driven by a shift towards the overnight RRP operations offered by the Federal Reserve.
- With net issuance of T-Bills mostly negative since 2021, the shortage of market alternatives was an important factor behind the decline of Treasury holdings.
- The resulting richness of T-Bills further added to the attractiveness of overnight RRP rates.

Figure 2. Asset composition of US MMFs.

A strong urge to shorten maturities, following a relentless monetary policy tightening, led to shorter WAMs.

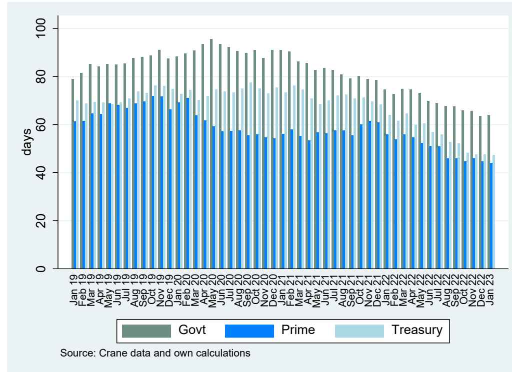
3. WAM of assets by Fund Type
[in days]



- A key factor driving RRP increased participation in 2022 has been uncertainty over the path of monetary policy, which led MMFs to considerably shorten their investment horizons to minimize credit and interest rate risks.
- The WAMs of MMF holdings dropped to very low levels, reflecting the large share of their ON RRP portfolio
- The decline was more pronounced for prime MMFs, which increased their RRP participation relatively more.

Similarly, WALs of assets held also declined.

4. WAL of assets by Fund Type
[in days]



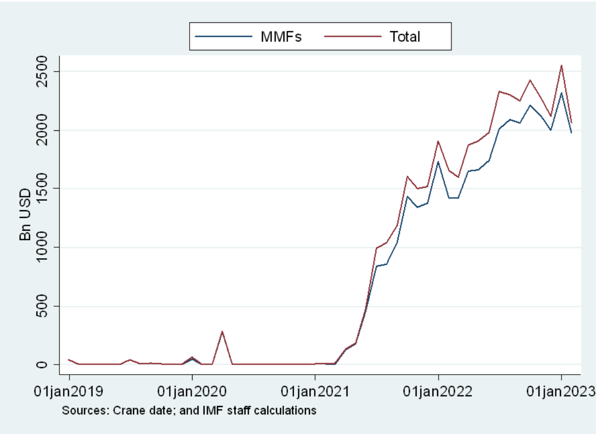
- The WALs, a weighted average of the time until the maturity of the portfolio, also dropped, albeit less markedly.
- The drop kept WALs comfortably lower compared to their regulatory requirement of maximum 120 days.
- The decline in Treasury MMFs was the starkest, bringing the WAL to levels similar to the ones recorded by Prime MMFs.

Sources: Crane Data, Bloomberg, NY Fed and IMF Staff calculations.

Figure 3. MMF participation in RRP operations for the Federal Reserve

MMF participation in the RRP operations increased drastically since 2021.

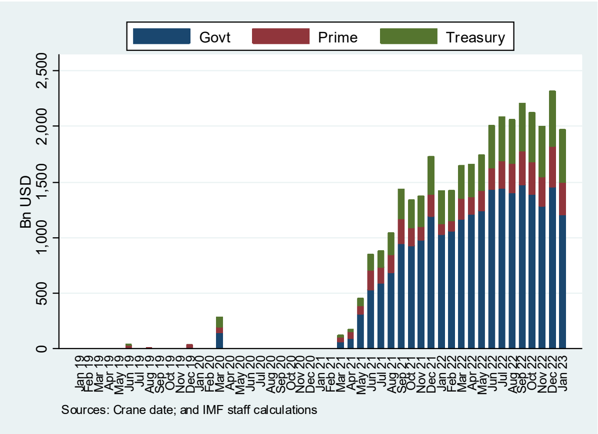
1. Total RRP and MMF take-up in the RRP
(in billions of US dollars)



- MMFs are major RRP participants, accounting for the major share of take up in RRP operations.
- RRP volumes increased drastically in the last couple of years, reflecting the shift of MMFs towards RRP investments.
- Other RRP participants, (dealer/Banks and Government Sponsored Enterprises- GSEs) increased participation by much less.

Government MMFs have the major share in RRP operations

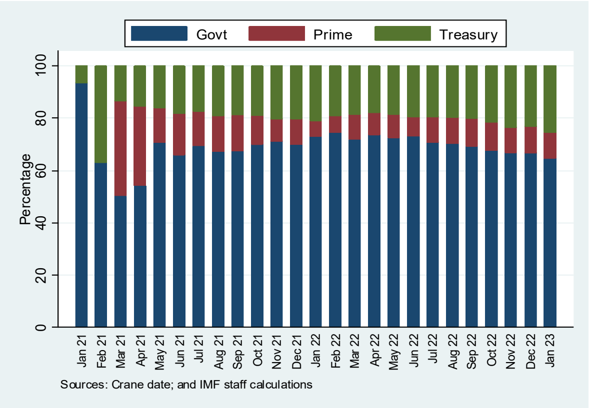
2. RRP take-up by Fund type
(in billions of US dollars)



- Government MMFs are the largest type of counterparty to the operations, reflecting the relative size of government MMFs compared to other types and their broader eligibility.

Prime and Treasury MMFs increased their participation in line with more inflows.

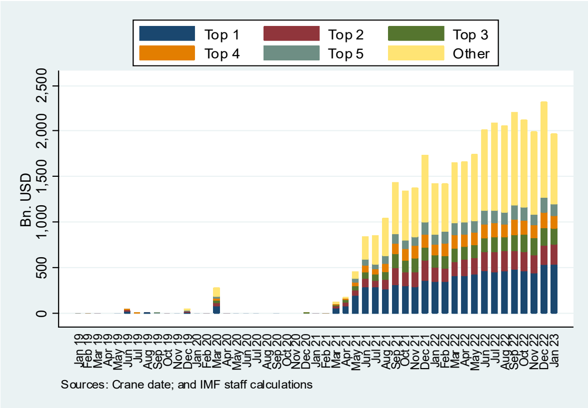
3. Share of RRP participation by Fund type
(in percent)



- The share of Government MMF participation shank a bit in 2022, as Prime and Treasury MMFs increased their share, in line with increased inflows.

RRP attracted a large number of MMFs, lowering the typical concentration of take-up to five Fund families.

3. RRP participation by the top-5 MMFs Fund Families
(in billions of US dollars)



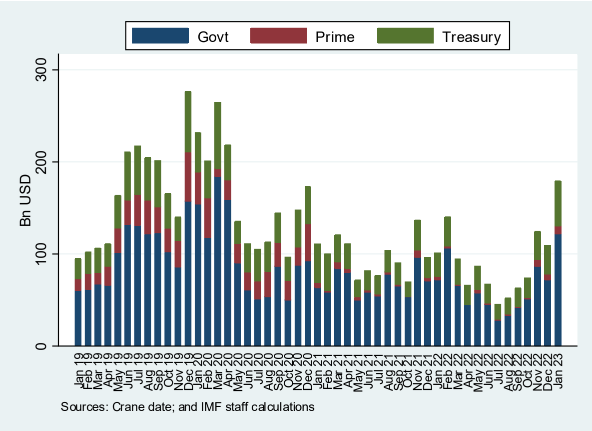
- Prior to mid 2021, RRP take up was minimal and the top five Fund families, largely consistent over time, typically made 100% of the take up.
- Since mid 2021, the top five families have consistently made more than 50% of the total MMF RRP take up. at.

Sources: Crane Data, Bloomberg, NY Fed and IMF Staff calculations.

Developments in Sponsored Repo

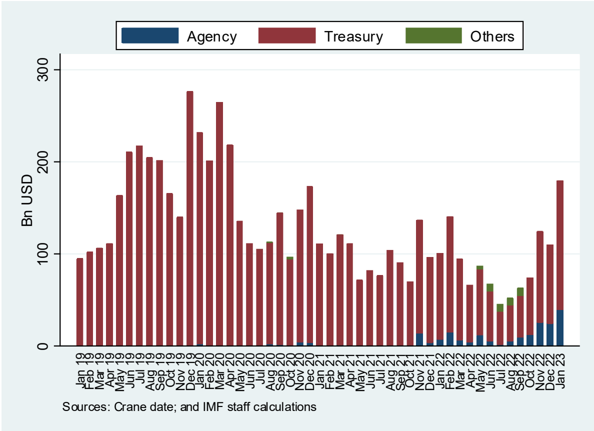
Sponsored repo take up appears on a rising trend.

1. Repo holdings of MMFs with the FICC as counterparty by MMF type
(In billions of US dollars)



The main type of collateral remains Treasury collateral, with Agency repos on an upward trend.

2. Repo holdings of MMFs with the FICC as counterparty by maturity
(In billions of US dollars)

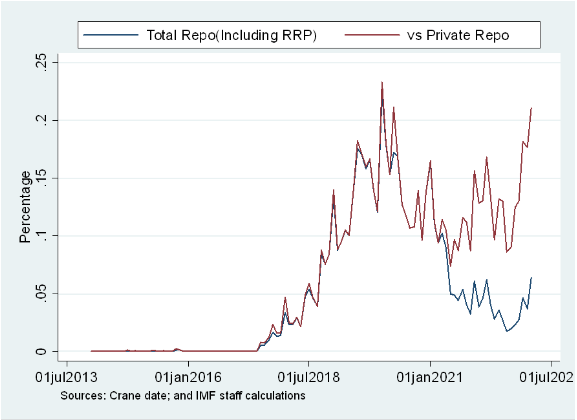


- Post-crisis leverage rules have constrained intermediation capacity of dealers in repo markets.
- Under sponsored repo, MMF still negotiate bilaterally with dealers, but the trades are novated by a central clearinghouse (FICC). The dealer steps out of the trade (i.e. freeing her balance sheet) but guarantees the financial performance of MMFs to the FICC.
- Since July-2022, sponsored repo volumes rose along with rising bilateral repo rates and an increased demand for repo.

- An increase in other types of collateral has also contributed to the elevated volumes in late 2022.
- US Treasury repos by far dominate the collateral posted in sponsored repo trades, but agency repo increased steadily in the last few months.

Sponsored repo remains a very small part of MMF tri-party repo.

1. Share of sponsored repo vs private repo and vs total repo (including the Federal Reserve - RRP).
(percentage)



- So far, sponsored repo remains a very small share of repos conducted by MMFs with dealers. This is likely due to the costs involved in this process, which are currently borne by dealers.
- Given the low share, there is on ongoing discussion on possible ways, other than sponsoring, by which full centralisation of Treasury repo volumes can be achieved, in line with the SEC proposal.

Sources: Crane Data, and IMF Staff calculations.