How investors manage cash

Cash management research note | June 2023

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Introduction

Cash management is a topic of increasing importance to investment managers. Approximately 11% of holdings across the Addepar client base are in cash instruments, up 35% from the beginning of last year. As cash market dynamics continue to evolve rapidly, the impact on portfolio performance between a competitive cash management strategy and a poor one can be significant.

On average, more than two thirds of cash portfolios consist of money market funds and Treasury bills. In this note, we look into how private wealth investors allocate to these two instruments and identify some potential opportunities for improvement.

Key takeaways

- Spreads between depository rates and securities remain high, continuing to incentivize managers to rotate out of deposits. These conditions sparked the regional banking crisis earlier this year.
- Yet market data and investor flows have subsequently normalized, as banking crisis fears and debt ceiling concerns have both receded.
  - The yield curve is no longer heavily inverted as it was prior to the banking crisis.
  - 1-month Treasury bill rates are no longer trading at a discount due to debt ceiling worries.
  - After substantial fear-based Treasury bill inflows in March, April and May show neutral flows.

- Direct trading of Treasury bills offers a number of advantages over money market funds: lower fees, more targeted duration to match liabilities, higher average duration, and more control in crisis scenarios. Despite how accessible the Treasury bill market is and the proliferation of tools to assist with trading, managers generally provide this service only to their most important relationships.

Cash market trends

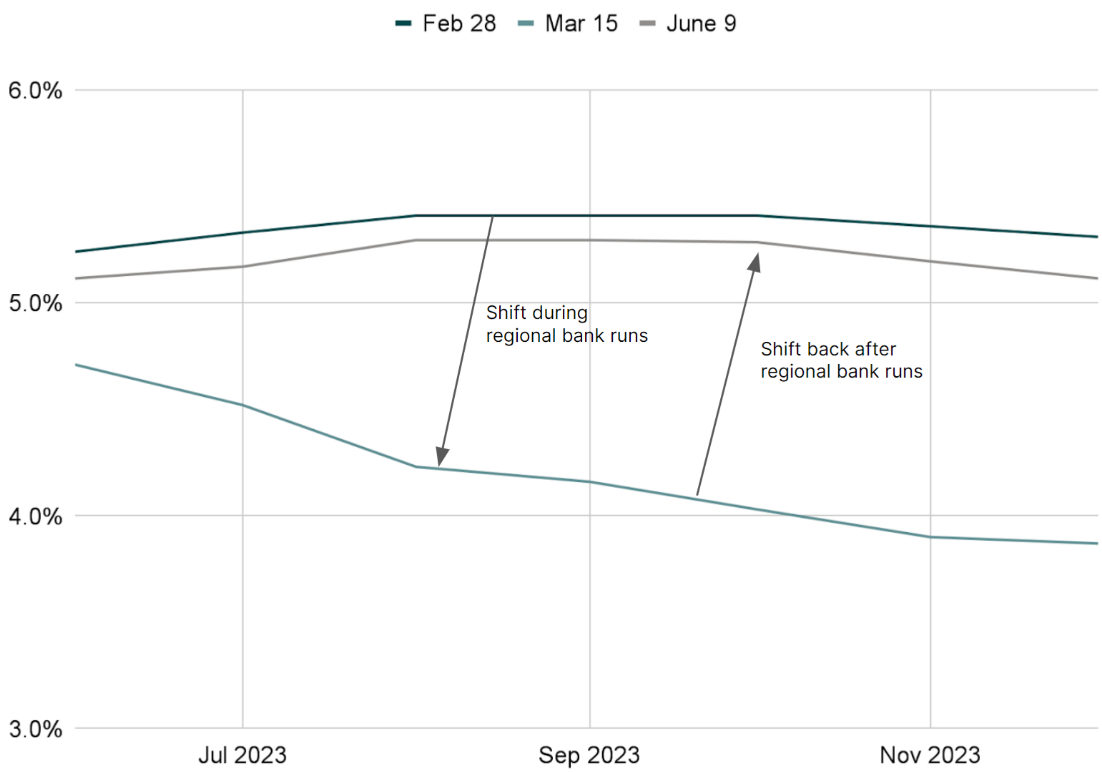
The fed funds forward curve, which refers to market-implied expectations for future fed funds rates, continues to become less inverted and roughly returning to levels seen at the end of February at the front end of the curve, prior to the regional bank runs. With the Fed leaving interest rates unchanged in mid-June, the market now expects potentially several more rate hikes in 2023, before easing may begin in 2024–2025. This flattening of the curve — together with the expectation that the Fed is moving closer to ending its interest rate hikes — reflects a prevailing market psychology that the regional banking crisis is behind us and the Fed will soon win its battle against inflation.

Interest rates are similar at the front end and then downward sloping, implying no additional yield for taking on extra duration exposure. For managers, the incentive remains to stay invested in shorter maturities.

Exhibit 1

The market expects rates to begin to ease later this year, in line with pre-bank crisis expectations

Fed funds futures implied rates as of February 28, March 15 and June 9



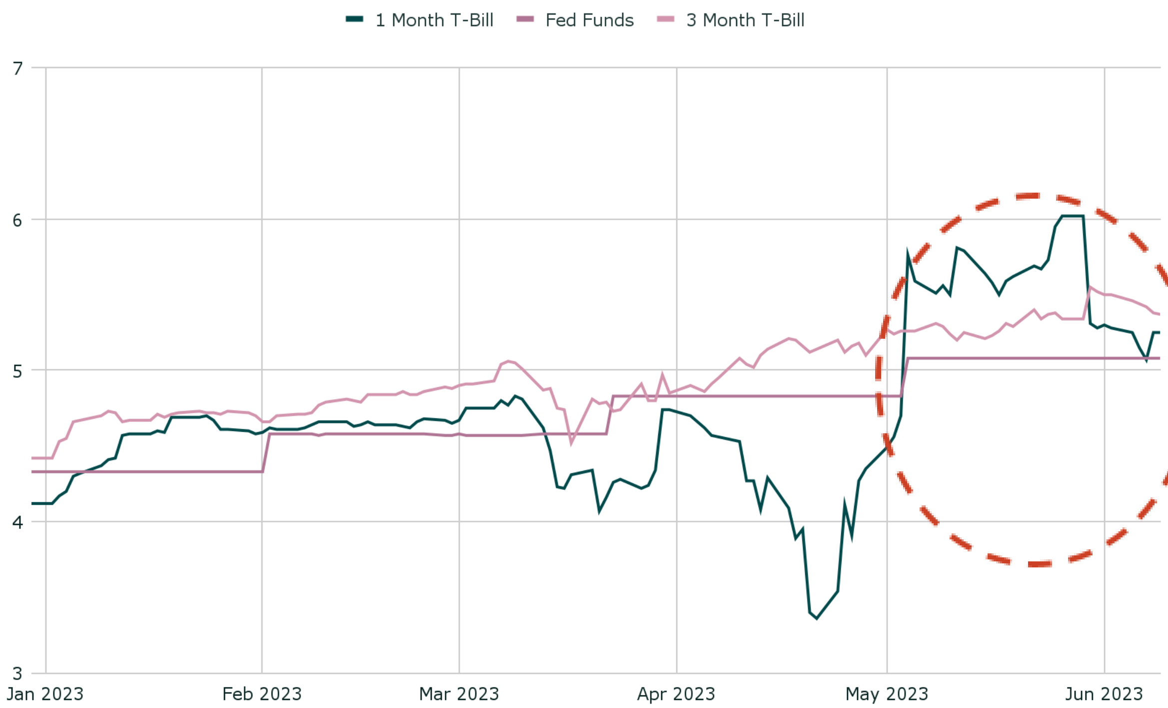
Source: CME Group

In our last note, we reported on distortions in Treasury bill rates due to stalled debt ceiling talks. These have now subsided, with 1-month Treasury bills no longer trading at a substantial discount because a debt ceiling deal has been struck. On a related note, liquidity spreads have narrowed to more historically normal levels.

Exhibit 2

1-month Treasury bills traded at a significant premium to fed funds rate and now are at a discount

Liquidity, duration and credit premiums, Jan. 1–April 28, 2023



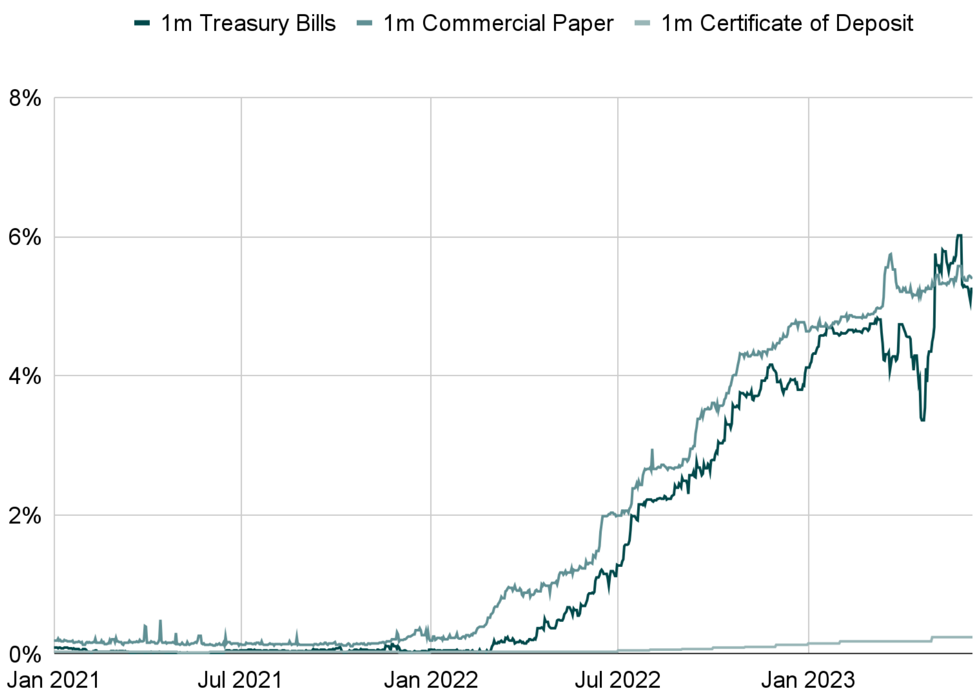
Source: Federal Reserve Bank of Saint Louis

Finally, yield differentials between depository products and securities remains high, which implies deposits remain unattractive relative to securities. For banks, this dynamic continues to put pressure on their depository base.

Exhibit 3

A significant gap remains between securities and benchmark depository rates

Daily yields of cash instruments since January 2021



Source: Thomson Reuters, Federal Reserve Bank of New York

Investor trends

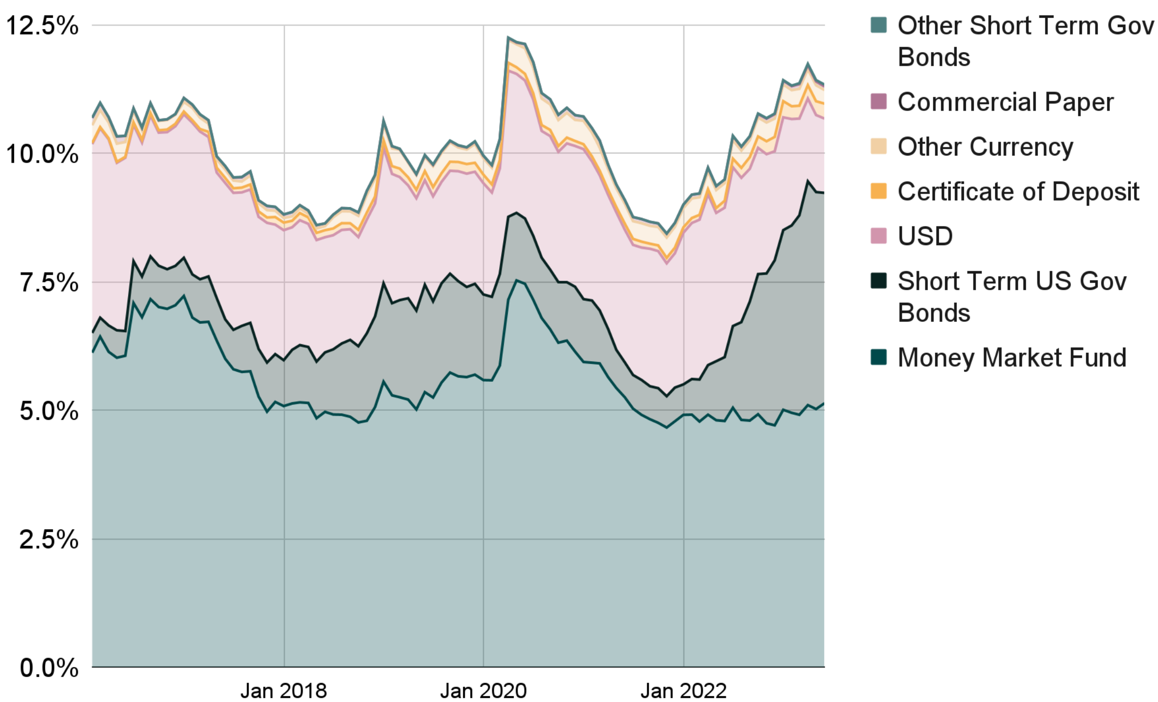
Private wealth investors continue to hold elevated levels of cash at roughly 11% of their portfolios on average, compared to a 9.7% historical average. Investors are allocating 5% of their cash to money market funds, 4% to direct trading of short-term Treasuries and the remainder to depository and other types of cash instruments.

This shift from deposits to Treasuries has been ongoing since returns on Treasuries started to outpace depository rates, although it snowballed after the regional banking crisis earlier this year. Essentially, all of the increase in cash holdings has been driven by direct investing in Treasury bills.

Exhibit 4

High allocations to cash has been fueled by direct holdings of short-duration Treasuries

Cash holdings by investment type, % of total assets, Jan. 2016–May 2023



Source: Addepar

USD and other currency are defined as paper money and cash held at banks. Money market funds are ETFs and mutual funds that invest in safe fixed income instruments with maturities of one year or less. Short-term U.S. government bonds are Treasury bills and off-the-run Treasury securities set to mature in one year or less.

In Exhibit 5, we review the top 10 most popular funds held by private wealth investors. We observe that these funds are almost exclusively holding the safest securities such as Treasury, agency and repurchase agreements. The one exception is JPST, which is mostly invested in credit. What's not on the list is also quite interesting to note; municipal bonds and other spread instruments do not appear in the top funds[1]. For all funds, the historical tracking error is modest relative to what can be found in other asset classes, although for large cash holders even a 10 bps underperformance can be quite meaningful.

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[1] Post 2008, regulatory reforms were implemented to address vulnerabilities in the money market fund industry, which experienced significant disruptions during the crisis. Among other impacts, these regulations constrained money market fund holdings.

We also note that the more popular funds tend to have higher historical excess returns,[2] which may indicate that investors use historical returns as criteria for picking funds. However, our research shows that fees and macro conditions are the key drivers of tracking error to benchmarks. We will cover this topic in depth in our next cash management research note.

Exhibit 5

The most popular funds are mostly invested in government securities with less than a month of maturity

Top 10 most commonly held cash funds on platform*, May 2023

Name	Ticker	Inception	% of Portfolios	Composition	Fees	WAM	Excess Ret. ITD	Excess Ret. 1-Yr.	CP Excess Ret.
Fidelity Government Cash Reserves	FDRXX	5/31/1979	17.8%	66% Repo, 31% Agency	0.27%	25	0.27%	-0.02%	--
Schwab Value Advantage Money Fund (Investor Shares)	SWVXX	4/30/1992	7.2%	44% Repo, 25% CD, 18% CP, 10% Time Deposit	0.34%	19	0.09%	0.24%	--
Fidelity Government Money Market Fund	SPAXX	2/5/1990	5.9%	65% Repo, 32% Agency	0.42%	24	0.03%	-0.05%	--
JPMorgan Ultra-Short Income ETF	JPST	5/17/2017	4.9%	30% Credit, 22% Cash, 21% CP, 16% CD	0.18%	277	0.56%	0.15%	0.45%
Schwab Government Money Fund (Sweep)	SWGXX	1/26/1990	4.9%	72% Repo, 23% Agency	0.44%	17	-0.21%	-0.10%	--
Fidelity Treasury Money Market Fund	FZFXX	8/31/1983	4.9%	93% Repo, 7% Treasury	0.28%	7	-0.18%	-0.03%	--
Vanguard Treasury Money Market Fund (Investor Shares)	VUSXX	12/14/1992	3.5%	51% Treasury, 42% Repos	0.09%	52	0.05%	0.19%	--
SPDR Bloomberg 1-3 Month T-Bill ETF	BIL	5/25/2007	3.4%	100% Treasury	0.14%	47	-0.07%	0.02%	--
Schwab Treasury Obligations Money Fund (Investor Shares)	SNOXX	4/24/2012	2.5%	95% Repo, 5% Treasury	0.34%	4	-0.12%	0.05%	--
Schwab U.S. Treasury Money Fund (Investor Shares)	SNSXX	1/17/2018	2.5%	100% Treasury	0.34%	22	-0.21%	-0.13%	--

* An asset-weighted analysis yields a similar qualitative picture.
**Excess return is calculated at ITD total return of the fund minus the return on 1-month Treasuries. The commercial paper excess return uses the 30-day commercial paper (AA Financial) return rate minus the return on 1-month Treasuries.
***Cash funds are defined via Morningstar as those with fund category equal to one of prime money market, money market-taxable, money market-tax-free or ultrashort bond.
Source: Thomson Reuters, latest fund factsheets.

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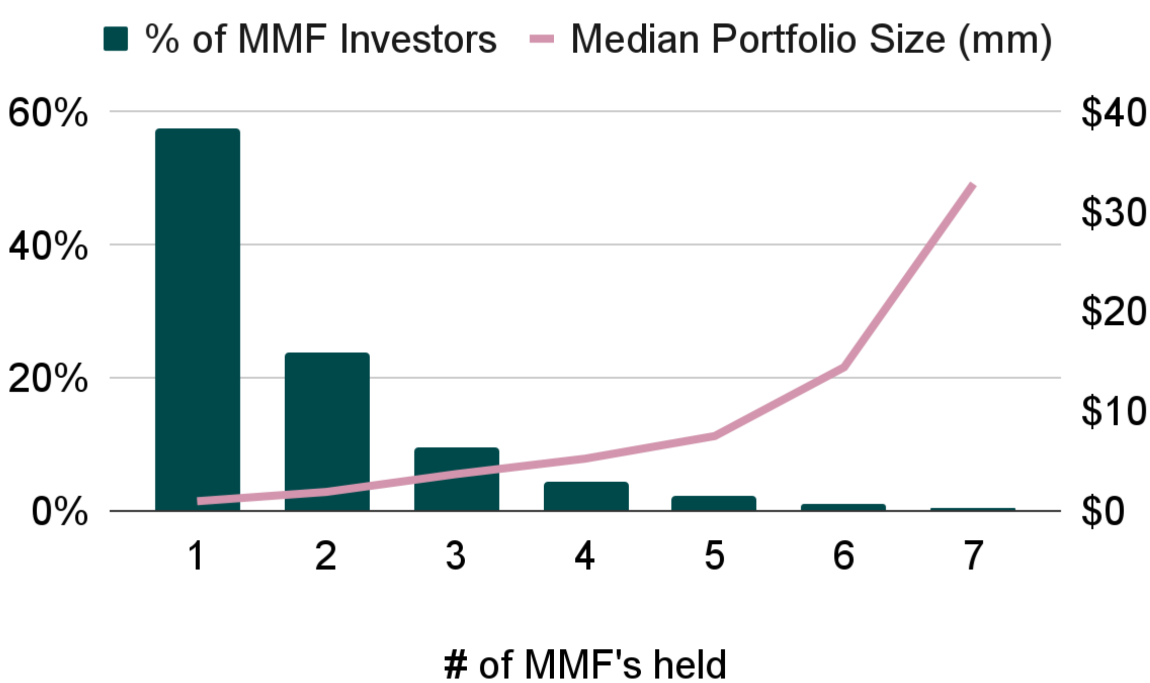
[2] Excluding JPST, there's a .8 correlation between % of portfolios and ITD excess return.

Most investors only hold one money market fund. Often these are tied by default to the brokerage or custody client relationship. As portfolios get larger and the number of accounts and sophistication increases, we see ownership of multiple funds, which are again generally tied to custody relationships[3]. It's likely not a surprise to readers that money market funds are a lucrative source of revenue for custodians[4]. The flip side is that with a bit of extra work (or technology), whether through picking better funds or trading securities directly, managers can potentially earn higher returns on their cash.

Exhibit 6

58% of all investors in MMF's only hold a single fund

Median investment and percentage count by number of distinct money market funds held, May 2023



Source: Addepar

We now take a closer look at the emerging trend of investing directly into Treasuries (not through fund vehicles). Our main learning is that managers tend to provide this service only to their top tier clients. In addition to the quantitative data we share below, through preliminary client discussions we've learned that operational concerns and not market concerns (such as trading minimums) are

[3] Larger portfolios also hold more municipal bonds and spreads such as corporate bonds.
[4] Fees on sweep vehicles are generally high with the exception of Vanguard in Exhibit 4.

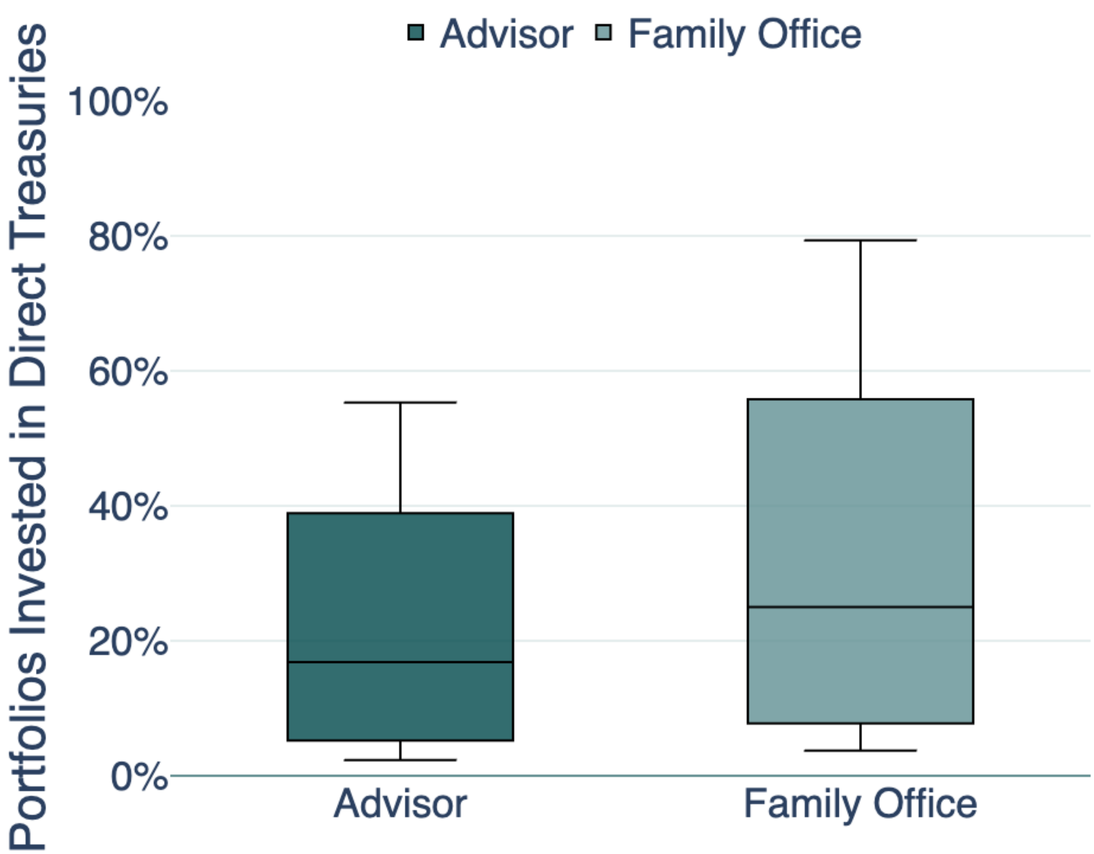
the primary reason for not providing this service to all clients. This may be an opportunity for enterprising managers to stand out from their peers.

Exhibit 7 shows that most managers are investing in Treasury bills for a small percentage of their clients. This is surprising because of the relative simplicity of trading Treasuries through auction or in the secondary market, as we will share in a subsequent Addepar Research Brief.

Exhibit 7

The median advisor invests in direct Treasuries for only 17% of their clients

Percentage of firm portfolios invested directly in Treasuries by firm type, May 2023



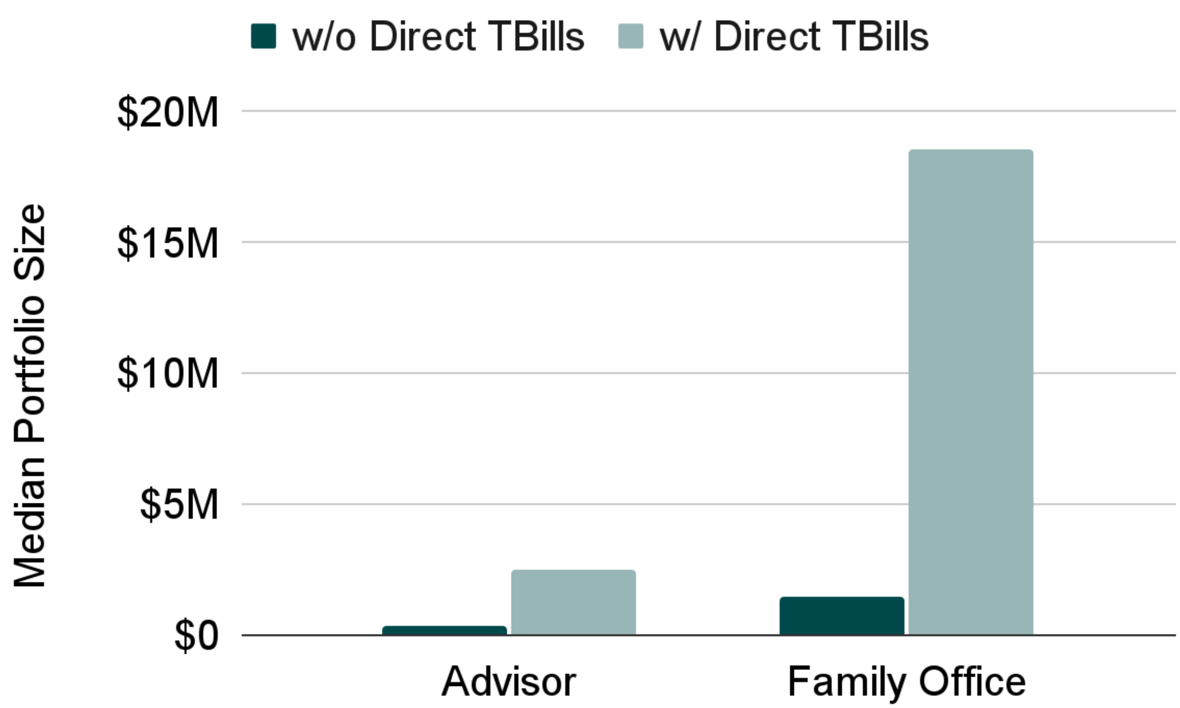
* 10th, 25th, 50th, 75th, 90th percentiles respectively.
Source: Addepar

Exhibit 8 shows that Treasury bills are being traded for larger portfolios. This implies that managers are limiting this service to their 'white glove' clientele. Operational challenges such as account management, monitoring markets and staying abreast of operations such as rolling maturing bills are likely the top reasons challenging managers.

Exhibit 8

The portfolios invested in direct Treasury bills tend to be for larger portfolios

Median portfolio size with and without direct Treasury investments by firm type, May 2023



Source: Addepar

It's quite interesting that the median maturity of Treasury bill holdings is four months, while the typical money market fund holds less than a month of WAM (weighted average maturity). This may indicate that money markets do not adequately provide the exposure that many portfolios desire. As discussed in our asset allocation paper, private wealth portfolios hold significant alternatives whose capital call liabilities are ideally neutralized with instruments of appropriate maturities (oftentimes of more than a month). In holding a longer WAM, these investors are then also earning more term premium over money market funds.

Interestingly, Treasury bill WAMs have declined and distributions compressed recently — likely in response to the inversion in the yield curve, which as we've discussed is incenting managers to roll into the short-end of the curve.

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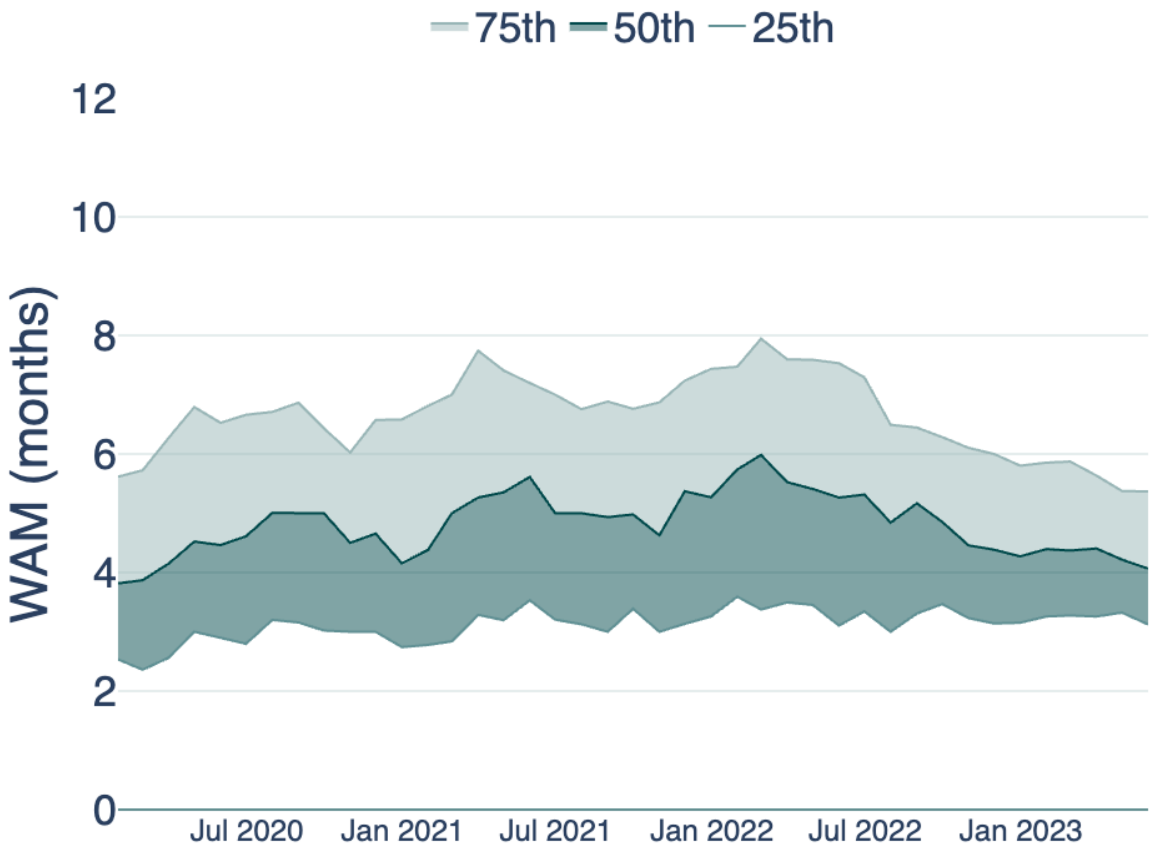
Exhibit 9

Firms are increasingly concentrating their Treasury bill holdings to WAMs of 3–6 months

Interquartile range of weighted average maturity of short term treasury portfolios Jan 2020 - May 2023



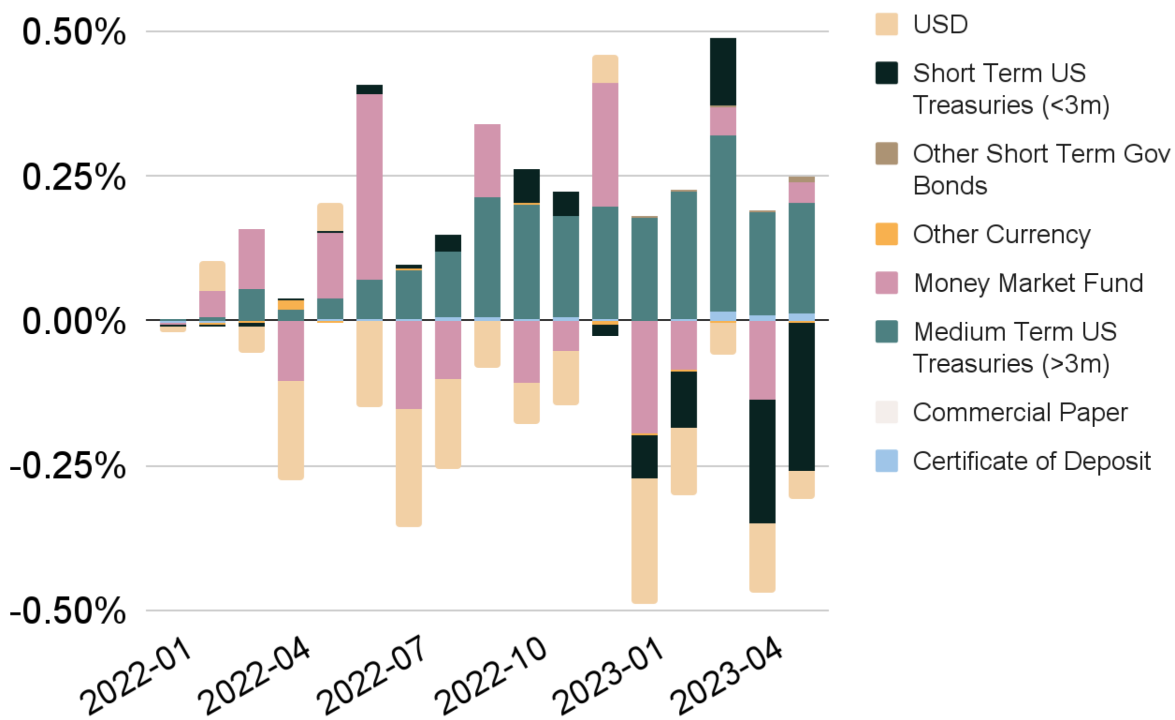
Source: Addepar

After investors ran to the safety of treasuries in March, pressures have receded in April and May. That month had the lowest net inflows into direct Treasury bills since last September. Rotations out of <3-month Treasury bills and into higher maturities may indicate lingering concerns over the debt ceiling.

Exhibit 10

Investors are continuing to flow out of shorter-term Treasury bills into medium-term Treasuries (>3-months)

Average portfolio flows into cash, Jan. 2022–May 2023



Source: Addepar

4. Conclusion

Markets and investor activity are pointing to a calming of fear induced by the regional banking crisis, even though deposits remain unattractive. Managers who reduce their exposure to bank default while investing in trading Treasury bills for their entire client base have the opportunity to stand out from their peers.

5. Definitions

The **fed funds forward rate curve** is a graphical depiction of expected fed funds interest rates in the future as priced by futures contracts. Typically, the curve is upward sloping, indicating that longer-term securities have higher yields than shorter-term securities. Generally, the central bank is more likely to tighten policy than ease. This pattern also reflects the market's expectation of higher compensation for holding longer-term bonds due to factors such as inflation uncertainty and interest rate risk. The shape of the curve can change based on economic conditions and market expectations. At present, U.S. markets are pricing in a few more rate hikes in 2023, followed by rate cuts in 2024–2025.

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