

US Rates Watch

MMF portfolio update: WAMs extending quickly

Gov't fund inflows have slowed recently

Money market funds have seen record inflows in 2023 driven by Fed hikes, an inverted yield curve, and bank deposit outflows. According to Crane Data, money market funds have seen over \$1tn in inflows YTD. Inflows have primarily been into gov't MMFs, which are almost \$700b higher on the year (Exhibit 1). More recently however gov't funds are flat since Sept quarter-end. Prime funds are up \$226b YTD, with \$46b QTD. We see risks of further MMF AUM slowdown or outflows as the Fed cuts & curve steepens (Exhibit 3).

Inst'l funds have not yet recovered from mid-Oct outflow

Retail MMF AUM is up \$550b YTD while institutional funds have grown \$445b (Exhibit 2). In Q4 inst'l MMF AUM has declined \$8b but retail funds have seen almost \$100b in inflows. The decline in inst'l fund AUM occurred in mid-Oct around the expected California delayed tax payment date. Inst'l funds have seen inflows each week since mid-Oct but still lower on net. Prime and gov't retail funds continue to see inflows as the spread between MMF yields and retail deposit rates widen.

MMF yields little changed despite WAM extension

The average 7-day simple yield on MMFs have increased 24bps for gov't MMFs and 25bp for prime since the Fed's last hike on Jul 26 (Exhibit 4). The increase in MMF yields is most acute shortly after the Fed hike, but in Q4 yields are only up 2bps for both prime and gov't funds. Higher yields are primarily from MMFs moving out the curve. Gov't fund yields are currently 5.026% vs prime funds 5.191%, a 16.5bp spread. The spread between gov't and prime MMFs has come down 16bps since the start of the year. The narrowing of the spread in prime vs gov't appears reflective of prime funds shifting more into UST & agency debt & repo and away from CP, CD, and TDs.

MMF WAM extension rapid & back to avg '20-'21 levels

Gov't and prime fund WAMs have extended quickly in the past few months (Exhibit 5). Prime funds are now equal to their '20-'21 avg WAM with gov't funds only 5 days below. MMF WALs have also been extending, most significantly for gov't funds. In Q4 gov't fund WALS have extended 7.7 days vs 5.4 days for prime fund WALs. (Exhibit 6). MMF extension of WAM and WALs have picked up as the risk of cuts have been priced out and MMFs have become more comfortable with extending out the curve. Further WAM extension may be more challenging going forward as reflected in the tail of the 6m T-bill auction on Monday. MMF enthusiasm for longer tenor bills & WAM extension may wane as funds avoid securities that incorporate earlier-than-expected Fed rate cut pricing.

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AUM: Assets under management

MMF: Money market fund

YTD: Year to date

WAMs: Weighted average maturity

WAL: Weighted average life

ON RRP: Overnight reverse repo

facility

QT: Quantitative tightening

FHLB: Federal home loan banks

CD: Certificate of deposit

CP: Commercial paper

TD: Time deposit

UST: US Treasuries

Inst'l: institutional

Gov't: Government

DL: Debt limit

TGA: Treasury General Account

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MMFs continue to reduce ON RRP investments

As of October month-end, MMFs made up 95% of ON RRP take-up, in line with recent averages. A month-end snapshot from Crane Data shows that MMF take-up at the ON RRP declined \$400b in October vs September (Exhibit 7).

ON RRP take-up is now at levels last observed in Aug 2021 during the Fed's last QE program when utilization was ramping up. The decline in ON RRP has been most significant since the debt limit resolution when Treasury began to issue a large amount of T-bills. This helps to explain why despite large inflows into gov't MMFs, ON RRP take-up is now at a 2-year low. MMF that are nearly fully extended in WAM may see a slower decline in ON RRP use. We expect a slower pace of ON RRP decline going forward; it may take a further cheapening of other money market paper to draw cash out of RRP.

MMFs allocating more to Treasury debt

According to data from iMoneyNet, gov't funds allocated holdings primarily out of Treasury repo (which includes ON RRP) and into Treasury debt in Oct (Exhibit 9, Exhibit 11). Prime funds also reduced investments in Treasury repo and allocated primarily into non-negotiable TD, financial CP, and CDs (Exhibit 8, Exhibit 10).

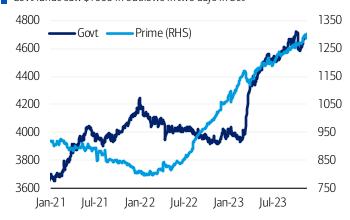
Over the last year, gov't funds have significantly increased their holdings of Treasury and agency debt and invested more into agency repo while reducing their Treasury repo investments. As we have approached the expected peak in Fed funds and front-end rates have cheapened, MMFs have been more willing to invest outside of the Fed's overnight reverse repo facility.

MMF holdings of bills increased \$219b in Oct, implying MMFs bought more than the \$197b in net new bills issued over the month (Exhibit 12). At the same time, MMF holdings of UST notes increased \$3b, slowly moving off historical lows, while holdings of FRNs declined \$42b likely due to expectations of Fed cuts (Exhibit 13).

Over the last two years, prime MMFs have consistently been reducing their holdings of CP, CD, and TDs and largely moving into Treasury and Agency repo. This trend troughed earlier this year following bank stress events which prompted banks to issue more CP, CD, and TDs to offset other deposit outflows. MMF holdings of CP, CD, and TDs are now flat to Feb month-end ahead of the March stress events.

Exhibit 1: MMF AUM (\$bn)

Govt funds saw \$100b in outflows in two days in Oct



Source: BofA Global Research, Crane Data

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Exhibit 2: Institutional MMF AUM vs Retail MMF AUM (\$tn)

 $Higher\ institutional\ deposit\ rates\ likely\ pulling\ \$\ out\ of\ inst'l\ MMFs$

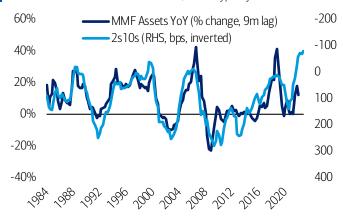


Source: Bloomberg, ICI



Exhibit 3: MMF assets and 2s10s curve

As 2s10s curve becomes more inverted, MMFs typically see inflows

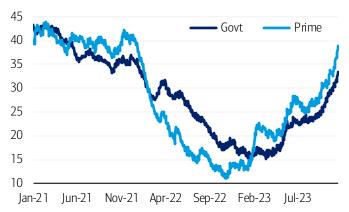


Source: BofA Global Research, Federal Reserve, Haver

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Exhibit 5: MMF WAM (Days)

MMF WAMs back at '20-'21 avg, further extension likely limited



 $\textbf{Source:} \ \ \mathsf{BofA} \ \ \mathsf{Global} \ \ \mathsf{Research, iMoneyNet}$

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Exhibit 7: Top 10 MMFs' ON RRP use (\$bn)

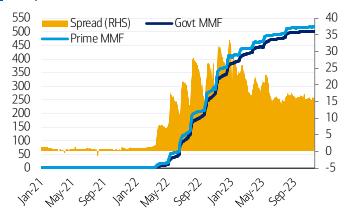
MMF ON RRP declined \$400b as of Oct month-end from Sept month-end

Fund	Oct Assets	Oct ON RRP	Sep ON RRP	Aug ON RRP	Jul ON RRP
Vanguard Federal Money Mkt Fund	273	77	88	87	101
JPMorgan US Govt MM	252	75	90	100	99
Fidelity Govt Money Market	295	56	52	74	108
Schwab Treasury Oblig MF	71	45	49	49	49
Fidelity Govt Cash Reserves	227	40	43	59	85
Fidelity Inv MM: MM Port	116	39	37	48	54
Fidelity Cash Central Fund	46	37	33	34	38
Fidelity Inv MM: Govt Port	183	36	45	61	79
Northern Instit Treasury MMkt	73	34	47	46	50
Fidelity Money Market	97	33	31	39	44
Total of all MMFs	4897	1077	1478	1560	1748

Source: BofA Global Research, Crane Data

Exhibit 4: Domestic MMF 7 day simple yield (bps)

MMF yields rise after a Fed hike but further increases are limited

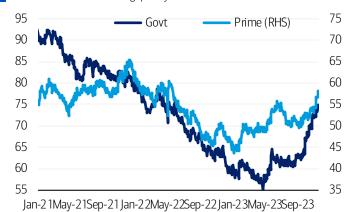


Source: BofA Global Research, iMoneyNet

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Exhibit 6: MMF WAL (Days)

Gov't MMF WALs extending quickly as the curve became less inverted



Source: BofA Global Research, iMoneyNet

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Exhibit 8: Domestic MMF holdings, prime funds (\$bn)

Prime funds shifted holdings out of UST repo and allocated inflows into CP, CD, and TDs

		Prime Prime Institutiona			onal	Prime Retail			
	Oct-23	MoM Δ	ΥοΥ Δ	Oct-23	ΜοΜ Δ	ΥοΥ Δ	Oct-23	MoM Δ	ΥοΥ Δ
Cash	18.0	0	16	5.4	(0)	4	12.6	0	12
Treasury Debt	30.3	2	29	3.9	(0)	3	26.3	2	25
Treasury Repo	159.8	(33)	54	18.0	(21)	(11)	141.8	(11)	65
Govt Agency Debt	2.1	(0)	2	1.1	0	1	1.0	(0)	1
Govt Agency Repo	81.1	(4)	57	10.5	2	3	70.6	(6)	54
Other Repo	67.9	(1)	22	35.5	(1)	7	32.3	0	15
CD	199.2	14	65	63.3	(2)	5	135.9	16	60
Financial Co CP	157.1	12	40	48.3	2	2	108.8	11	38
ABCP	58.7	1	20	21.0	0	6	37.8	1	14
Other CP	14.8	2	(1)	3.0	0	(3)	11.9	2	2
Non-Negotiable TD	120.0	31	39	50.7	16	8	69.3	15	31
VRDN	7.1	0	1	1.8	0	(0)	5.3	0	2
Other	9.4	(1)	2	0.0	0	0	0.0	(67)	0
Total	930	25	347	268	(5)	24	662	29	322

Source: BofA Global Research, iMoneyNet

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Exhibit 9: Domestic MMF holdings, government funds (\$bn)

Gov't fund AUM allocated holdings out of UST repo and into UST debt, agency debt, and agency repo

				Go	vernmei	nt			
	Government			Institutional			Government Retail		
	Oct-23	MoM Δ	ΥοΥ Δ	Oct-23	MoM Δ	ΥοΥ Δ	Oct-23	MoM Δ	ΥοΥ Δ
Cash	79.7	(8)	16	60.2	(4)	10	19.4	(4)	5
Treasury Debt	1837.9	189	656	1115.9	91	244	722.0	98	412
Treasury Repo	1594.3	(288)	(457)	709.7	(183)	(332)	884.6	(105)	(125)
Govt Agency Debt	644.8	34	188	356.9	27	135	287.9	7	53
Govt Agency Repo	551.2	13	299	420.7	13	244	130.5	0	55
Other Repo	5.0	(2)	5	5.0	(1)	5	0.0	(1)	0
Investment Co Funding Agrmnt	9.2	(1)	(2)	3.9	(1)	(2)	5.3	(0)	0
VRDN	0.6	(0)	0	0.1	0	0	0.5	(0)	0
Other Instrument	2.0	2	2	0.8	0	1	1.2	1	1
Total	4725	(62)	706	0	0	0	0	0	0

Source: BofA Global Research, iMoneyNet Analyzer

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Exhibit 10: Prime MMF holdings as % of total

Prime funds allocated more into CP, CD, and TDs

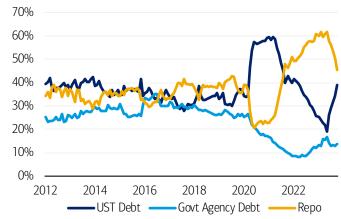


Source: BofA Global Research, iMoneyNet

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Exhibit 11: Govt MMF holdings as % total

Gov't funds are swapping their holdings of repo for UST debt



Source: BofA Global Research, iMoneyNet

Exhibit 12: Bills outstanding versus MMF bill holdings (\$bn) Bill holdings as % of outstanding are now above pre-COVID '18-'20 avg

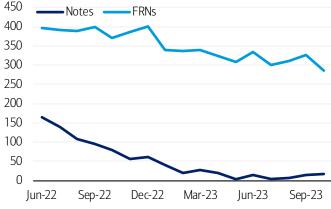
	Bills		MMF as %
	Outstanding	MMF Holdings	Total
Jun-22	3524	896	25%
Jul-22	3515	892	25%
Aug-22	3725	846	23%
Sep-22	3645	761	21%
Oct-22	3666	765	21%
Nov-22	3812	706	19%
Dec-22	3697	598	16%
Jan-23	3939	662	17%
Feb-23	4058	644	16%
Mar-23	4069	663	16%
Apr-23	3943	656	17%
May-23	3993	576	14%
Jun-23	4467	888	20%
Jul-23	4771	1124	24%
Aug-23	5074	1277	25%
Sep-23	5260	1417	27%
Oct-23	5457	1636	30%

Source: BofA Global Research, Crane Data

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Exhibit 13: MMF holdings of Treasury notes and FRNs

MMF holdings of FRNs declined \$42b as Fed cuts got priced in



Source: BofA Global Research, Crane Data



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