

## US Rates Watch

## MMF portfolio update: Gov't MMFs see significant inflows

## MMF portfolio update: MMF inflows bought FHLB debt and invested in Fed ON RRP

**AUM:** Money market funds have seen \$340bn in inflows since bank stress began on March 10th, according to Crane Data (Exhibit 1). Government MMFs drew inflows of \$354b following contagion fears around uninsured bank deposits. At the same time, prime funds saw \$16bn in outflows as investors likely wanted to park cash in safer funds and limit exposure to banks.

Most of these MMF inflows were into institutional MMF. Inst'l MMF AUM grew roughly \$307bn since March 10 vs \$77bn into retail funds. The recent institutional MMF inflows are likely to be from uninsured bank depositors (Exhibit 2). The flow into government institutional funds is a reversal of the theme we saw in '22 and earlier this year. Prime retail had drawn most of the inflows with Fed hikes & low bank deposit betas.

Overall, we expect MMF AUM to continue to increase as yields remain attractive relative to bank deposit rates. Historically, we have seen MMF AUM grow as 2s10s becomes more inverted (Exhibit 3, Exhibit 4). The current level of inversion would imply MMF AUM could grow to \$6.3tn, but we see risks skewed to the downside of this estimate.

**Simple yield:** The average 7-day simple yield on government MMFs has risen 21bps since March 10 vs 23bps for prime MMFs over the same period, which includes a 25bp Fed hike (Exhibit 5). Gov't fund yields are current 4.43% vs prime funds 4.62%, a 19bp spread. Since the start of '23, yields have risen 61 and 48bps for gov't and prime funds, respectively. We expect yields to keep rising along with the next Fed hike and as MMFs extend out the curve.

**WAM & WAL:** Gov't funds have extended WAM 0.9 days since the start of bank stress to 16.3 days, which is flat on the year. Prime MMFs have reduced WAM 3.4 days over the same period but are still 4.6 days longer YTD (Exhibit 6).

Gov't fund WALs have declined 3.1 days since Mar 10 and are 4.6 days shorter on the year. Prime WALs have shortened 3.6 days since Mar 10 but flat YTD. (Exhibit 7).

Uncertainty around the Fed's hiking path continues to keep MMFs short. Expectations of Fed nearing its last hike encourages extending out the curve but MMFs remain risk averse due to uncertainty around bank stress and strength of macro variables.

In addition to Fed path uncertainty, extreme richness of short-dated bills and debt limit risk aversions are keeping MMFs short. MMFs are pouring into 1m bills and ON RRP to avoid debt limit impacted bills. This should reverse post DL resolution, when we'll likely see significant net issuance in T-bills, which should cheapen front-end paper in late 2023 and encourage MMF WAM extension.

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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

DL: debt limit

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**ON RRP take-up:** MMF take-up at the Fed's ON RRP was \$138b higher on March quarter-end vs Feb month-end (Exhibit 9). Take-up likely rose due to typical quarter end dynamics which were exacerbated by recent bank stress.

The recent bank stress initially led to lower ON RRP take-up. Lower ON RRP use occurred despite MMF inflows as MMFs shifted their holdings into FHLB debt. As FHLB issuance slowed and MMFs continued to see inflows, ON RRP use has increased.

ON RRP take-up is likely to continue to increase as MMFs avoid bills maturing near forecasted debt limit X-dates.

**Holdings:** According to data from iMoneyNet, prime funds reallocated holdings out of CP, CD, and TD and into Treasury and agency repo (Exhibit 10, Exhibit 13). This was likely to reduce exposure to banks, especially non-Euro bloc and Japanese issuers (Exhibit 17). Gov't funds, which saw \$423b in inflows according to iMoneyNet in March, poured inflows into Agency debt and US Treasury repo, in line with what we are seeing in ON RRP take-up and FHLB debt issuance (Exhibit 9, Exhibit 11, Exhibit 14).

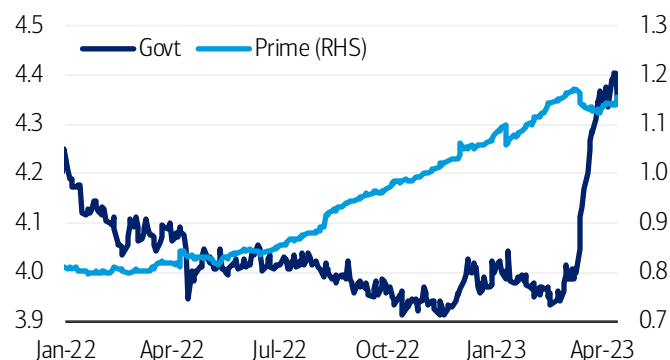
MMFs increased lending via repo to a number of banks in March who increased funding or built cash buffers via borrowing in repo (Exhibit 12). The largest increase ex-Fed was in FICC cleared repo.

Gov't funds increased allocations to UST notes and FRNs for the first time in several months as bill supply was little changed (Exhibit 15, Exhibit 16). We will likely see MMFs continue to move out of bills as the debt limit approaches and they want to avoid maturities that fall past potential X-dates. This has been reflected in the recent richening of 1m bills vs cheapening of 3m and 4m bills (Exhibit 18).

Bill supply cuts will likely continue as we approach the debt limit X-date (see [April tax season & debt limit X-date](#)). MMFs will likely continue to move into ON RRP as a result until the debt limit resolution. At that point we expect significant bill supply issuance to refill the TGA, which will drain ON RRP.

#### Exhibit 1: MMF AUM (\$tn)

Govt funds saw large inflows, prime funds saw outflows

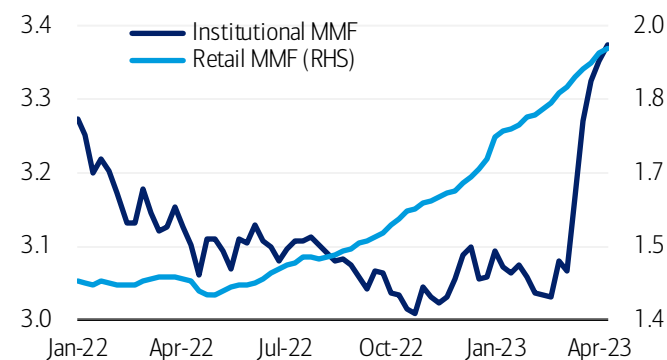


Source: BofA Global Research, Crane Data

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

Inst'l MMFs absorbed most of the outflows from uninsured bank deposits

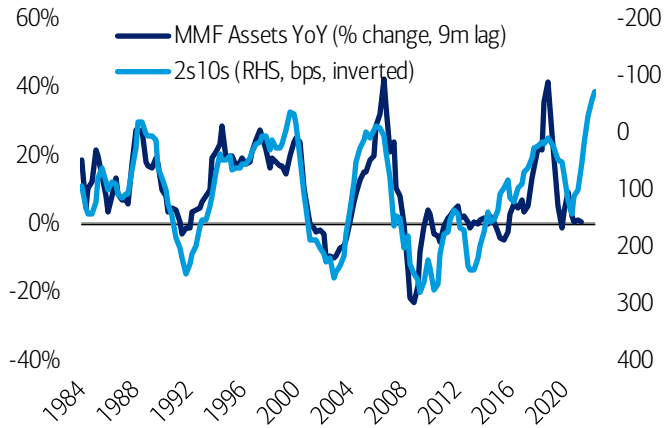


Source: Bloomberg, ICI

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**Exhibit 3: MMF assets and 2s10s curve**

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

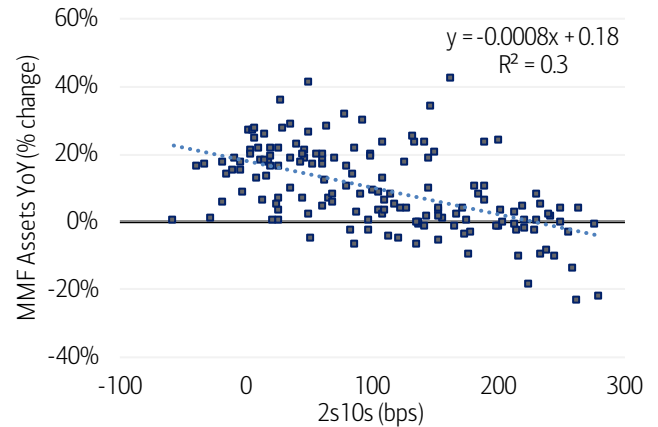


Source: BofA Global Research, Bloomberg, Haver

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**Exhibit 4: MMF assets YoY % change vs 2s10s**

As 2s10s get more inverted, MMF AUM grows

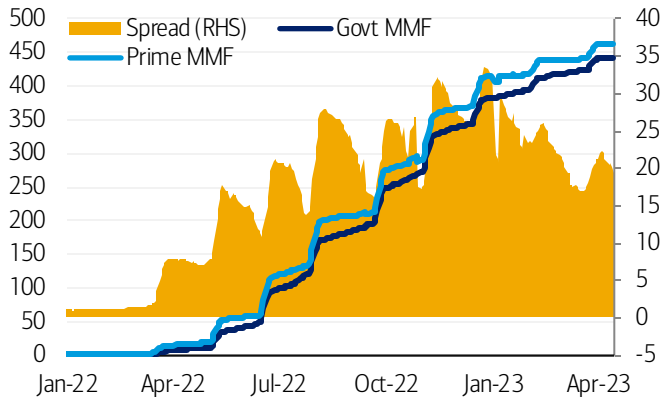


Source: BofA Global Research, Bloomberg, Haver

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**Exhibit 5: Domestic MMF 7 day simple yield (bps)**

MMF yields continue to rise with Fed hikes

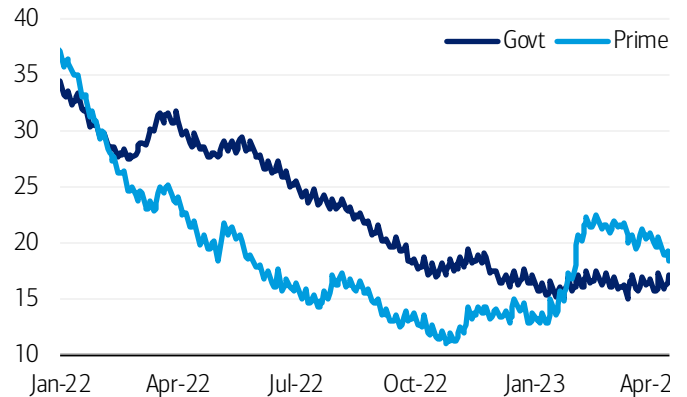


Source: BofA Global Research, iMoneyNet

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**Exhibit 6: MMF WAM (Days)**

Gov't WAM was flat but prime fund WAMs recently declined

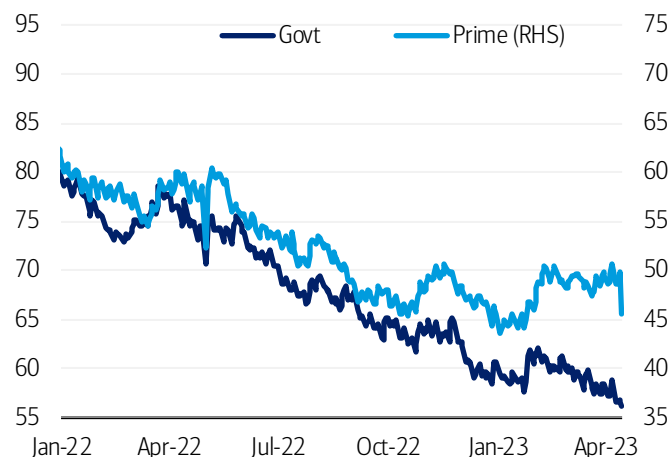


Source: BofA Global Research, iMoneyNet

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**Exhibit 7: MMF WAL (Days)**

Prime fund WALs dropped dramatically after bank stress

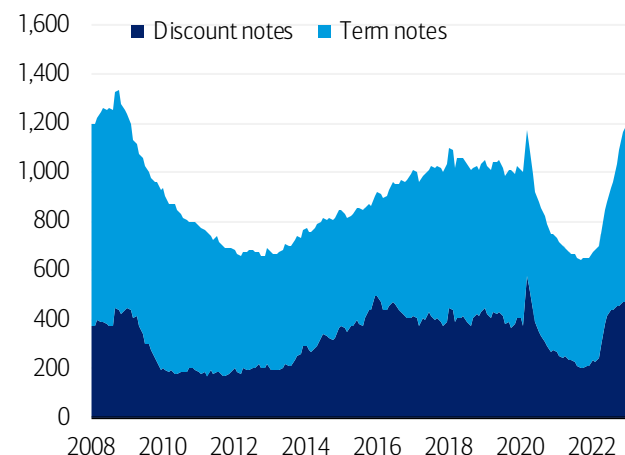


Source: BofA Global Research, iMoneyNet

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**Exhibit 8: FHLB debt issuance (\$bn)**

Higher FHLB debt issuance leading to more MMF investment



Source: BofA Global Research, FHLB Office of Finance

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**Exhibit 9: Top 10 MMFs' ON RRP use (\$bn)**

MMF ON RRP take-up picked up on March Q/E but still below \$160b counterparty cap

Fund	Mar Assets	Mar ON RRP	Feb ON RRP	Jan ON RRP	Dec ON RRP
Goldman Sachs FS Govt	266	138	138	136	142
Fidelity Govt Money Market	256	123	136	139	136
Vanguard Federal Money Mkt Fund	238	122	118	119	128
JPMorgan US Govt MM	225	109	84	88	118
Fidelity Govt Cash Reserves	215	102	119	125	126
Fidelity Inv MM: Govt Port	172	102	0	81	69
BlackRock Lq FedFund	136	71	58	42	59
BlackRock Lq T-Fund	90	64	60	41	50
Morgan Stanley Inst Liq Govt	150	61	43	39	75
Dreyfus Govt Cash Mgmt	118	58	84	87	82

Source: BofA Global Research, Crane Data

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**Exhibit 10: Domestic MMF holdings, prime funds (\$bn)**

Prime funds shifted holdings from CP/CD/TD into UST&amp; agency repo

	Prime			Prime Institutional			Prime Retail		
	Mar-23	MoM	YoY	Mar-23	MoM	YoY	Mar-23	MoM	YoY
Cash	11.4	(0)	10	4.4	(0)	3	7.0	(0)	6
Treasury Debt	2.7	(4)	(1)	1.5	(1)	(0)	1.2	(2)	(1)
Treasury Repo	238.4	54	182	48.4	10	25	190.0	44	157
Govt Agency Debt	3.4	2	3	1.1	0	1	2.2	1	2
Govt Agency Repo	63.3	8	47	18.1	10	13	45.2	(2)	34
Other Repo	49.9	0	3	28.5	0	(1)	21.3	(0)	4
CD	143.5	(14)	53	58.7	(5)	3	84.8	(8)	50
Financial Co CP	115.9	(21)	24	42.5	(11)	(2)	73.4	(10)	27
ABCP	42.5	(4)	12	15.3	(1)	(1)	27.2	(3)	14
Other CP	10.4	(8)	(1)	3.2	(3)	(2)	7.2	(5)	1
Non-Negotiable TD	68.5	(35)	12	32.4	(13)	(5)	36.1	(23)	18
VRDN	5.5	(0)	(4)	1.4	(1)	(3)	4.2	0	(1)
Other	9.4	2	0	0.0	0	0	0.0	(26)	0
Total	769	(21)	342	262	(15)	29	507	(6)	313

Source: BofA Global Research, iMoneyNet

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**Exhibit 11: Domestic MMF holdings, government funds (\$bn)**

Gov't MMF inflows bought UST and Agency debt and repo

	Government			Government Institutional			Government Retail		
	Mar-23	MoM	YoY	Mar-23	MoM	YoY	Mar-23	MoM	YoY
Cash	56.5	2	12	42.4	(1)	11	14.1	3	1
Treasury Debt	993.4	48	(629)	788.2	59	(252)	205.2	(10)	(377)
Treasury Repo	2232.9	142	450	1020.0	70	79	1212.9	71	371
Govt Agency Debt	699.6	190	363	377.6	132	174	322.0	58	189
Govt Agency Repo	389.6	40	106	285.7	28	74	103.9	12	32
Other Repo	3.2	(1)	3	3.2	(1)	3	0.0	0	0
Investment Co Funding Agrmnt	9.0	1	4	3.9	1	(1)	5.1	0	5
VRDN	0.6	0	(5)	0.1	0	(4)	0.5	0	(1)
Other Instrument	1.6	1	1	0.7	1	0	0.9	1	1
Total	4387	423	305	2522	288	84	1865	135	221

Source: BofA Global Research, iMoneyNet

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**Exhibit 12: Top 10 largest MoM increases in MMF repo by issuer Ex-Fed**

MMFs increase FICC cleared repo by \$55b MoM

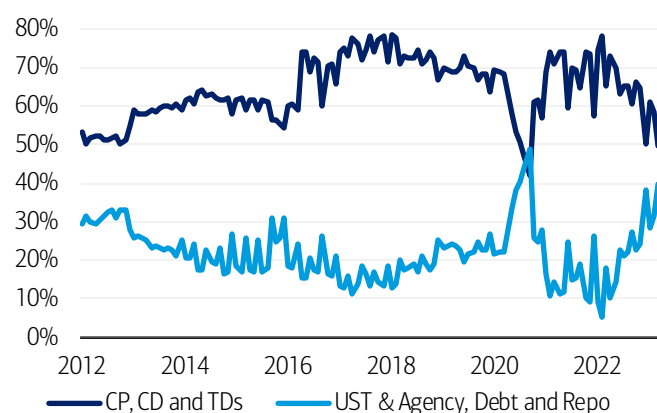
	Mar-23	Feb-23	Change
Fixed Income Clearing Corp	231.7	177.0	54.7
Bank of America	66.4	43.0	23.4
Bank of Montreal	32.7	16.2	16.5
ING Bank	23.1	9.7	13.4
Wells Fargo	32.2	19.1	13.1
Citi	56.3	45.9	10.5
JP Morgan	77.9	69.4	8.5
Sumitomo Mitsui Banking Corp	38.4	30.5	7.9
BNP Paribas	58.7	54.2	4.5
RBC	72.3	69.0	3.3

Source: Crane Data

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**Exhibit 13: Prime MMF holdings as % of total**

Prime fund holding of repo increased while CP, CD, and TD declined

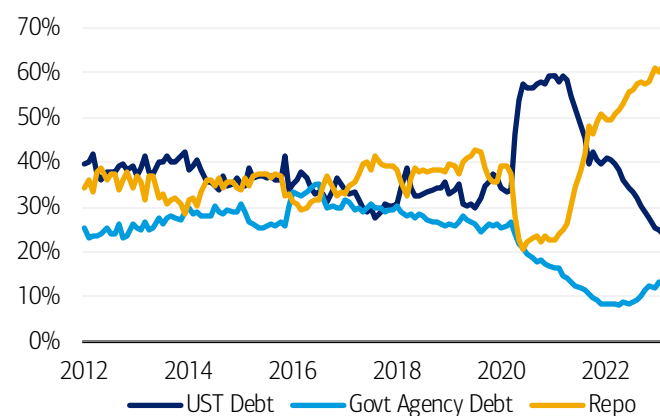


Source: BofA Global Research, iMoneyNet

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**Exhibit 14: Govt MMF holdings as % total**

Gov't holdings of repo dominates but growth in agency debt has picked up

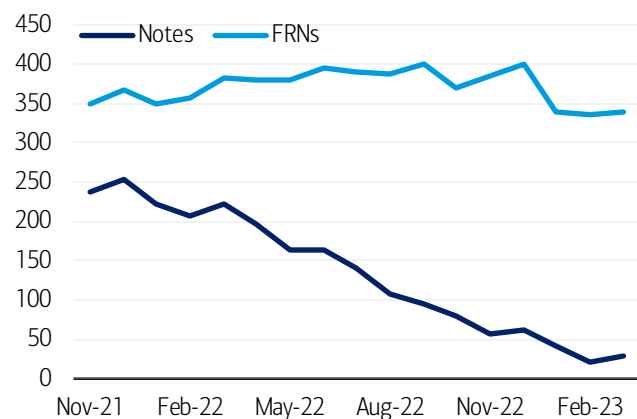


Source: BofA Global Research, iMoneyNet

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**Exhibit 15: MMF holdings of Treasury notes and FRNs**

MMF holdings increased for notes and FRNs



Source: BofA Global Research, Crane Data

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**Exhibit 16: Bills outstanding versus total MMF holdings (\$bn)**

MMF holdings as % of outstanding unchanged in March

	Bills Outstanding	MMF Holdings	MMF as % Total
Nov-21	3785	1199	32%
Dec-21	3768	1184	31%
Jan-22	3959	1274	32%
Feb-22	4053	1261	31%
Mar-22	3927	1144	29%
Apr-22	3826	1093	29%
May-22	3671	984	27%
Jun-22	3523	896	25%
Jul-22	3514	892	25%
Aug-22	3724	846	23%
Sep-22	3644	761	21%
Oct-22	3665	765	21%
Nov-22	3811	706	19%
Dec-22	3696	598	16%
Jan-23	3937	662	17%
Feb-23	4056	644	16%
Mar-23	4068	663	16%

Source: BofA Global Research, Crane Data

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**Exhibit 17: Prime MMF holdings, by country of issuer (\$bn)**

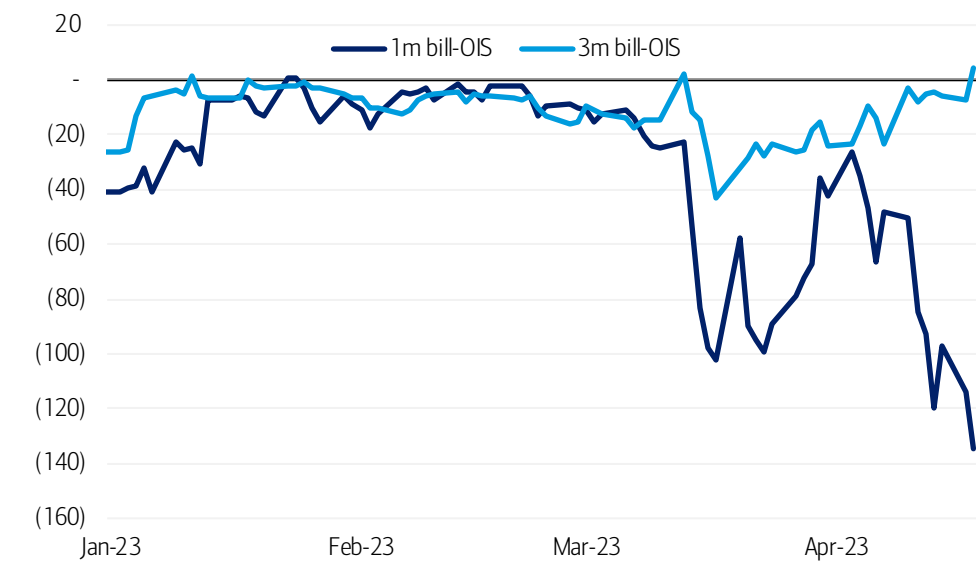
Prime MMF reduced holdings of CP, CD, and TD primarily with exposure to non Euro-bloc issuers

	CD			Financial Co CP			Non-Negotiable TD		
	Mar-23	MoM Δ	YoY Δ	Mar-23	MoM Δ	YoY Δ	Mar-23	MoM Δ	YoY Δ
US	16.3	(1)	13	8.2	(0)	4	0.5	(5)	0
Canada	28.2	0	5	34.1	(2)	7	6.6	(1)	(1)
Euro Bloc	27.5	(8)	13	13.9	(11)	(1)	30.8	(7)	4
Germany	5.5	(4)	2	3.4	(6)	(2)	4.8	(2)	(3)
France	17.1	(3)	11	4.7	(1)	0	3.5	(2)	2
Other	4.9	(1)	1	5.8	(4)	0	22.5	(3)	6
Europe (non-Euro Bloc)	20.8	(1)	1	30.4	(1)	13	5.6	(19)	(1)
UK	9.2	(1)	(0)	7.2	0	3	0.6	(3)	(1)
Sweden	11.1	0	4	15.8	(1)	10	4.3	(16)	(1)
Other	0.6	0	(2)	7.4	(0)	(0)	0.7	0	1
Australia	0.4	0	(1)	17.2	(4)	2	11.5	4	6
China	0.0	(1)	(0)	0.0	(0)	0	1.7	(0)	(1)
Japan	47.0	(4)	21	6.9	(1)	(1)	4.2	(7)	(1)
Total	143.5	(14)	90	115.9	(21)	25	68.5	(35)	12

Source: BofA Global Research, iMoneyNet

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**Exhibit 18: 1m and 3m bills vs OIS (bps)**  
1m bills have richened vs OIS while 3m bills have cheapened



Source: BofA Global Research, Bloomberg

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