

US Rates Watch

Follow the money: FHLBs, MMF, & Fed

Money map: FHLBs, MMF, & Fed

Clients have recently asked how money is moving around the US financial system and what this implies for bank stress. We provide our real-time assessment of how funds are flowing in the system using daily & weekly data across FHLBs, MMF, & Fed.

Key takeaway: banking system stress remains high, but there are some signs of stabilization. MMFs experienced outflows on Friday & ON RRP take-up has trended downward since March 22. The MMF outflows, mostly out of government funds, likely represent some cash shifting back into the commercial banking system.

Tracking our views: we map the money flows from FHLB, MMF, & Fed activity.

FHLB activity: we see FHLB activity as the best real-time proxy for bank liquidity need. Recall, FHLBs are a core source of bank funding for applicable collateral (for detail see: [FHLB lender of 2nd-to-last resort](#)). FHLB debt issuance is the best barometer for bank advance / loan demand. Daily FHLB debt issuance data is from our trading desk. Trading desk is best real time data we are aware of; FHLB official issuance numbers are monthly.

FHLB net issuance on Monday, March 27th rose only \$575mn (Exhibit 2). This is a considerable slowdown from \$156.48bn at the start of bank stress; it is also a slowdown from the Friday, March 24 pace of \$7.3bn. Since March 13, FHLBs have issued net \$292bn according to BofA trading desk numbers (Exhibit 3).

Money market funds: MMF flows can represent cash moving around the system or cash leaving commercial banks. To track deposit outflows, we think the relevant statistic to watch is increase in Fed ON RRP or the Treasury cash balance. MMF inflows in excess of ON RRP or TGA increase should reflect cash recycled within the banking system.

MMF experienced outflows of \$13b on Friday, according to Crane data. The MMF outflows were surprising because there was not a large known Treasury tax payment date. Therefore, Friday's MMF outflows likely represent some cash shifting back into the commercial banking system, in our view.

ON RRP: use was relatively flat on Monday but total use remains \$30bn above March 10 levels. ON RRP use declined at start of the bank stress as MMFs likely shifted holdings into FHLB debt. ON RRP use has rebuilt as FHLB issuance slowed and with late month GSE P&I cash.

Fed bank data: late Friday, the Fed released updated bank H.8 data as of Mar 15 (Exhibit 10). Our take: (1) small to large US bank deposit shift, (2) cash build across banks, (3) sharp borrowing increase likely to build cash. Timelier Fed H.4.1 data from Mar 22 shows \$74bn w/w bank cash/reserve drop likely because deposits leaving for MMF (Exhibit 9). Fed H.4.1 also shows limited new use of emergency bank facilities (DW, BTFP; Exhibit 11).

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Abbreviations:

BTFP: bank term funding program
DW: discount window
FHLB: Federal Home Loan Banks
GSE: Government sponsored enterprises
MMF: Money market funds
ON RRP: Overnight reverse repo facility
P&I: principal & interest
TGA: Treasury General Account

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Refer to important disclosures on page 5 to 7.

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Timestamp: 28 March 2023 06:00AM EDT

Exhibit 1: Data on FHLB issuance + ON RRP / MMF flows (\$bn)

FHLB net issuance is offset by ON RRP decline & MMF inflows; funding markets are working

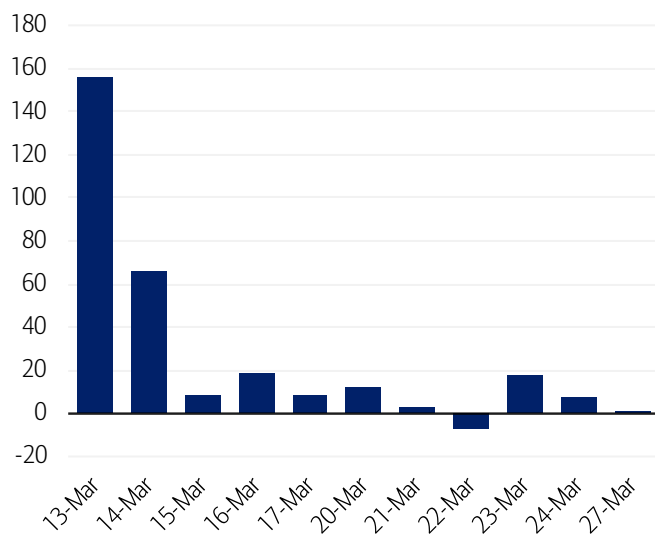
FHLBs	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	27-Mar
Total	156.49	66.34	8.19	19.18	8.62	12.10	3.36	-7.24	17.52	7.28	0.57
Money Markets	13-Mar	14-Mar	15-Mar	16-Mar	17-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	27-Mar
ON RRP Total	2,126.68	2,042.58	2,055.82	2,066.32	2,106.17	2,098.39	2,194.63	2,279.61	2,233.96	2,218.46	2,220.13
ON RRP Change (d/d)	-61.70	-84.10	13.24	10.50	39.85	-7.77	96.24	84.98	-45.65	-15.50	1.67
MMF Flows	37.68	47.83	11.63	37.28	-5.13	26.97	47.66	19.16	22.10	-13.20	
MMF Inflow - RRP Change	99.38	131.93	-1.61	26.78	-44.98	34.74	-48.58	-65.82	67.75	2.30	

Source: BofA Global Research, Bloomberg, Crane Data

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Exhibit 2: Daily FHLB debt issuance (\$bn)

MMF daily debt issuance has slowed

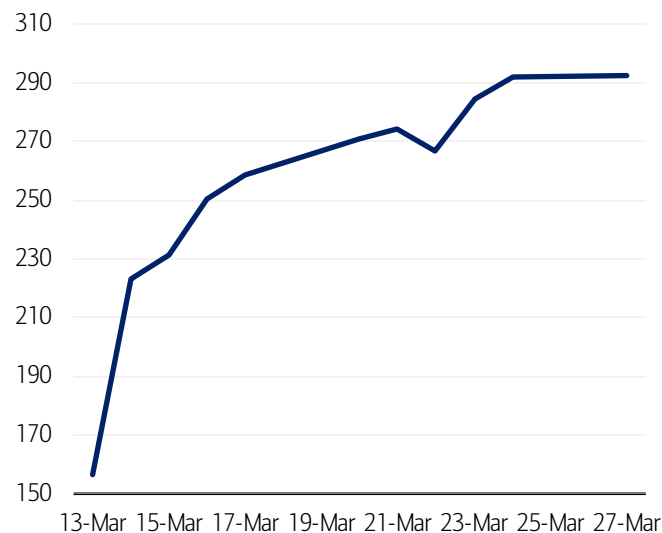


Source: BofA Trading Desk

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Exhibit 3: Cumulative growth in FHLB debt since Mar 13 (\$bn)

FHLB debt is \$292bn higher since Mar 13

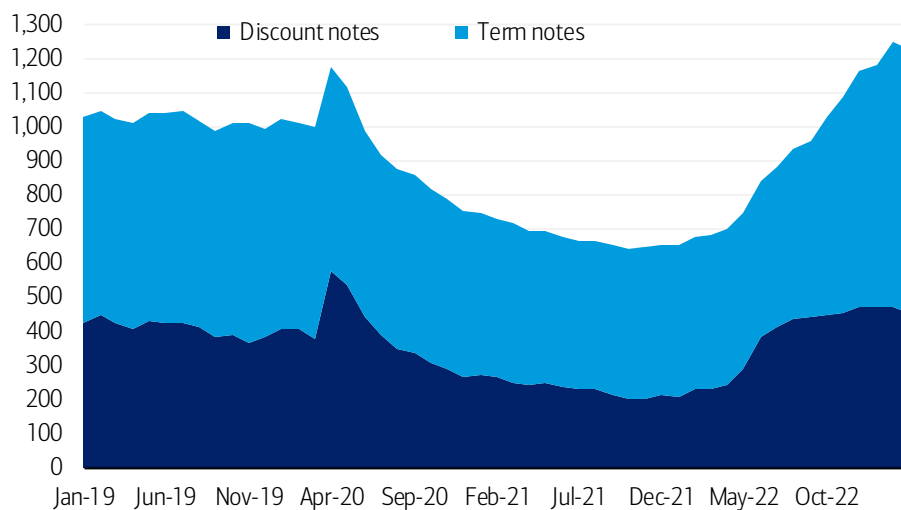


Source: BofA Trading Desk

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Exhibit 4: Monthly FHLB debt issuance (\$bn)

Higher FHLB debt issuance leading to more MMF investment



Source: FHLB Office of Finance, Haver Analytics

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Exhibit 5: MMF AUM (\$bn)

MMFs saw \$117.41bn in flows from prior week



Source: ICI, Bloomberg

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Exhibit 6: Weekly ICI Money Market Fund AUM (\$bn)

MMF aum rose \$117bn from prior week

Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Tax-exempt Institutional	Prime Retail	Gov't Retail	Tax-exempt Retail
3/15/2023	5,015	776	4,128	111	1,847	3,168	261	2,896	12	516	1,232	99
3/22/2023	5,132	765	4,260	107	1,862	3,270	259	3,001	11	507	1,259	96
WoW Change	117	-11	132	-4	15	102	-2	105	-1	-9	27	-2
MTD Change	238	-16	263	-8	49	189	-8	199	-2	-8	63	-6

Source: ICI, Bloomberg

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Exhibit 7: Daily Crane MMF AUM (\$bn)

MMF aum declined \$13bn from prior day, but still \$75bn higher WTD

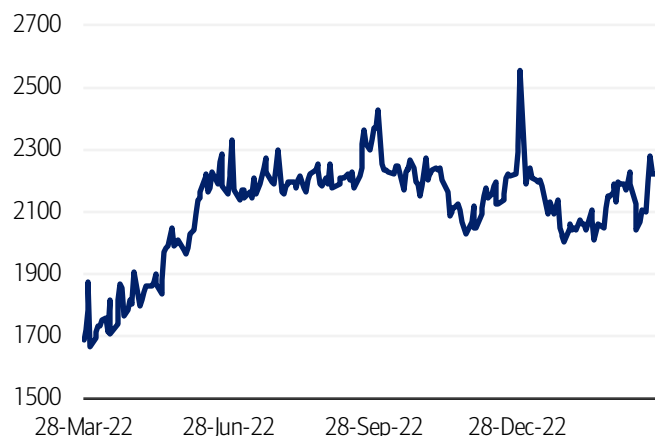
Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
3/20/2023	5,448	1,131	4,201	115	1,764	3,569	620	2,949	511	1,252
3/21/2023	5,495	1,130	4,251	114	1,768	3,614	621	2,992	509	1,258
3/22/2023	5,514	1,136	4,265	113	1,771	3,630	627	3,003	509	1,262
3/23/2023	5,536	1,136	4,287	113	1,775	3,648	627	3,021	509	1,266
3/24/2023	5,523	1,127	4,283	113	1,772	3,637	620	3,017	506	1,266
DoD Change	-13	-9	-4	0	-2	-11	-7	-4	-3	1
WoW Change	75	-5	82	-2	9	68	0	67	-5	14

Source: Crane Data

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Exhibit 8: ON RRP take-up (\$bn)

ON RRP take-up change from prior day was \$1.67bn



Source: FRBNY

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Exhibit 9: Fed reserve balances outstanding (\$bn)

Change in reserve balance from prior week was -\$74.22bn



Source: Federal Reserve H.4.1

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Exhibit 10: US Commercial Bank balance sheets, selected assets & liabilities (\$bn)

Domestic banks saw deposits shift from small banks to large banks. Bank borrowing saw the largest WoW increase on record

		Total	Assets						Liabilities			
			Cash	UST & Agy	MBS	Repo & FF	Loans & Leases	Other	Deposits	Borrowings	Net due to related foreign offices	Other
All Banks	3/15/2023	23275	3443	1626	2732	604	12088	2783	17562	2414	363	2935
	1w Chg	400	381	4	-3	2	54	-38	-53	436	40	-23
	1m Chg	256	280	-14	-22	0	36	-24	-90	439	-49	-44
	YTD Chg	299	347	-27	-41	3	-17	34	-383	560	93	29
Domestic Banks	3/15/2023	20236	2144	1512	2705	268	11049	2559	16265	1524	-339	2786
	1w Chg	482	456	1	-5	4	43	-18	12	470	5	-5
	1m Chg	398	404	-14	-25	-8	55	-12	-33	462	1	-32
	YTD Chg	235	275	-35	-32	-46	1	71	-366	540	0	61
Large Banks	3/15/2023	13280	1621	1192	1957	223	6539	1747	10796	879	-371	1977
	1w Chg	354	354	1	-5	3	22	-21	120	230	3	2
	1m Chg	285	306	-8	-12	-9	21	-11	60	232	4	-9
	YTD Chg	159	207	-24	-6	-41	-36	58	-210	304	4	61
Small Banks	3/15/2023	6957	523	320	748	44	4510	812	5469	645	33	810
	1w Chg	127	102	0	0	1	21	3	-108	241	2	-7
	1m Chg	113	98	-6	-13	1	34	-1	-92	230	-2	-23
	YTD Chg	76	68	-11	-26	-5	37	12	-156	236	-4	0
Foreign Banks	3/15/2023	3038	1299	113	27	337	1039	223	1298	890	702	149
	1w Chg	-82	-75	2	2	-2	11	-20	-65	-34	35	-18
	1m Chg	-142	-123	0	3	8	-18	-11	-58	-22	-50	-12
	YTD Chg	64	72	8	-9	49	-19	-37	-17	19	93	-31

Source: BofA Global Research, Federal Reserve H8

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Exhibit 11: Fed balance sheet, selected assets & liabilities (\$bn, Wednesday comparison data)

ON RRP absorbed most of the increase in Fed assets

Dates	Assets							Liabilities					
	Securities	Repo	Discount Window	BTFP	FDIC bank credit extension	CB Liquidity Swaps		Currency	Foreign RRP	ON RRP	TGA	Reserves	Total
3/15/2023	7,940	0		153	12		143	0	2,311	367	2,056	278	3,444 8,689
3/22/2023	7,937	60		110	54		180	1	2,319	370	2,280	200	3,370 8,784
WoW Change	-3	60		-43	42		37	0	8	3	224	-78	-74 94
MTD Change	-12	60		106	54		180	0	15	4	146	-151	342 394

Source: BofA Global Research, Federal Reserve

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