

US Rates Watch

Follow the money: FHLBs, MMF, & Fed April 3 update

Money map: FHLBs, MMF, & Fed

We provide our real-time assessment of how funds are flowing in the system using daily & weekly data across FHLBs, MMF, & Fed.

We provide an in-depth description of how funding movements and borrowing from the Fed and FHLB impact the balance sheets of the banking sector and MMFs here: <u>Funding map: T-tables for Fed, banks, MMF</u>

Key takeaway: banking system stress remains high, but there are some signs of stabilization / tentative improvement. Typical quarter-end dynamics drove ON RRP take-up higher and FHLB debt issuance lower.

FHLB activity: FHLB debt issuance is the best barometer for bank advance / loan demand. Daily FHLB debt issuance data is from the BofA Securities trading desk. Trading desk data is the best real time data we are aware of; FHLB official numbers are monthly.

FHLB net issuance declined \$23b on Friday, March 31 after increasing only \$3.4b the prior day (Exhibit 2), which shows a significant slowdown from \$156b at the start of bank stress. This is likely in part driven by quarter-end dynamics when FHLBs issuance typically declines. Since March 10th, FHLBs have net issued \$274b according to BofA Securities data (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 experienced inflows of \$27b on Thursday, according to Crane data. This brings the two-week average to \$18b in inflows per day. In total, MMFs are up \$320b since March 10^{th} . As FHLB debt declines, MMFs will likely continue to shift into ON RRP, which represents cash leaving the banking system.

ON RRP: take-up increased \$104b on Friday, not outside of typical increases seen on non-year-end quarter-ends. We expect most ON RRP to reverse some of those inflows on Monday.

Fed bank data: late Friday, the Fed released updated bank H.8 data as of Mar 22 (Exhibit 10). Our take: large US banks saw deposit outflows that largely shifted into MMF & Fed ON RRP. Large banks facilitated these deposit outflows by lower cash & to a much lesser extent securities. Small US banks saw much smaller deposit outflows, implying increased stability of their funding base. Fed H.4.1 data from March 29th shows \$34bn w/w bank reserve increase likely from banks borrowing from the Fed, MMFs cutting ON RRP take-up, and payments from the TGA/Treasury paydowns (Exhibit 9). Fed H.4.1 also shows a reduction in borrowing from Fed liquidity programs (DW, BTFP; FIMA repo, CB swap lines, 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
FIMA: Foreign and international monetary
authorities
CB: Central bank

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

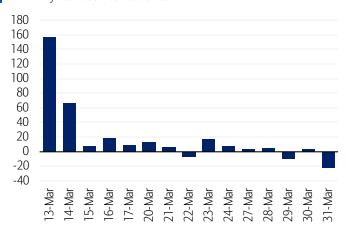
FHLBs	15-Mar	16-Mar	17-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar
Total	8.19	19.18	8.62	12.57	6.49	-7.18	17.52	7.28	3.32	5.66	-10.66	3.38	-22.76
Money Markets	15-Mar	16-Mar	17-Mar	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar
ON RRP Total	2,055.82	2,066.32	2,106.17	2,098.39	2,194.63	2,279.61	2,233.96	2,218.46	2,220.13	2,231.75	2,264.86	2,271.53	2,375.17
ON RRP Change (d/d)	13.24	10.50	39.85	-7.77	96.24	84.98	-45.65	-15.50	1.67	11.62	33.11	6.67	103.64
MMF Flows	11.63	37.28	-5.13	26.97	47.66	19.16	22.10	-13.20	26.55	41.85	-14.98	26.82	
MMF Inflow - RRP Change	-1.61	26.78	-44.98	34.74	-48.58	-65.82	67.75	2.30	24.87	30.23	-48.09	20.15	

Source: BofA Securities, Bloomberg, Crane Data

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

FHLB daily debt issuance has slowed



Source: BofA Securities

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Exhibit 3: Cumulative growth in FHLB debt since March 10 (\$bn)



Source: BofA Securities

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

Higher FHLB debt issuance leading to more MMF investment



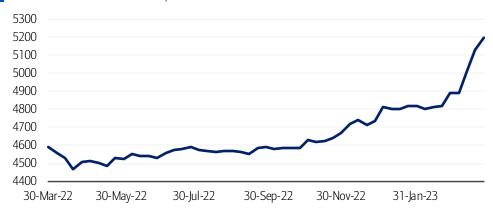
Jan-19 Jun-19 Nov-19 Apr-20 Sep-20 Feb-21 Jul-21 Dec-21 May-22 Oct-22

Source: FHLB Office of Finance, Haver Analytics

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Exhibit 5: MMF AUM (\$bn)

MMFs saw \$65.99bn in flows from prior week



Source: ICI, Bloomberg

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Exhibit 6: 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
3/22/2023	5,132	765	4,260	107	1,862	3,270	259	3,001	11	507	1,259	96
3/29/2023	5,198	757	4,331	110	1,873	3,325	253	3,061	11	504	1,270	99
WoW Change	66	-8	71	3	12	54	-5	60	0	-3	11	3
MTD Change	304	-24	334	-5	60	244	-13	259	-2	-11	75	-3

Source: ICI, Bloomberg

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

MMF AUM rose \$27bn from prior day, \$65bn higher WoW

<u>Dates</u>	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
3/23/2023	5,538	1,136	4,287	115	1,775	3,648	627	3,021	509	1,266
3/24/2023	5,524	1,127	4,283	114	1,772	3,637	620	3,017	506	1,266
3/27/2023	5,550	1,127	4,309	114	1,773	3,663	621	3,042	506	1,268
3/28/2023	5,590	1,131	4,347	113	1,777	3,700	625	3,075	505	1,272
3/29/2023	5,575	1,125	4,338	113	1,779	3,683	619	3,065	506	1,273
3/30/2023	5,602	1,121	4,368	113	1,781	3,709	615	3,094	506	1,275
DoD Change	27	-3	30	0	2	25	-4	29	0	1
WoW Change	65	-15	81	-2	6	60	-12	72	-2	9

Source: Crane Data

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

ON RRP take-up change from prior day was \$103.64bn



3900 3700 3500 3300 3100 2900 2700

30-Sep-22

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

Change in reserve balance from prior week was \$31.81bn

30-Jun-22

30-Mar-22

Source: Federal Reserve

2500

4100

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31-Dec-22

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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			Î
			Cash	UST & Agy	MBS	Repo & FF	Loans & Leases	Other	Deposits	Borrowings	Net due to related foreign offices	Other
All	3/22/2023	23170	3372	1579	2721	610	12105	2783	17354	2529	353	2934
Banks	1w Chg	-96	-82	-34	-2	6	14	2	-133	47	-9	-1
	1m Chg	209	286	-57	-34	6	64	-57	-239	534	-8	-78
	YTD Chg	194	277	-74	-52	9	-1	35	-591	674	83	28
Domestic	3/22/2023	20116	2066	1469	2695	276	11058	2552	16092	1602	-360	2782
Banks	1w Chg	-112	-89	-31	-1	9	6	-6	-97	10	-20	-4
	1m Chg	313	363	-54	-36	10	56	-26	-138	534	-39	-45
	YTD Chg	115	198	-78	-42	-37	11	64	-539	618	-22	57
Large	3/22/2023	13180	1542	1165	1957	232	6542	1740	10700	905	-392	1967
Banks	1w Chg	-100	-79	-27	1	9	3	-7	-96	26	-21	-9
	1m Chg	231	265	-31	-9	11	21	-26	27	255	-28	-23
	YTD Chg	60	128	-51	-4	-32	-33	52	-306	329	-17	53
Small	3/22/2023	6936	524	304	738	44	4516	812	5392	697	32	815
Banks	1w Chg	-11	-10	-3	-2	0	3	1	-1	-16	1	5
	1m Chg	82	98	-23	-27	-1	35	0	-165	279	-11	-21
	YTD Chg	55	70	-27	-38	-5	44	12	-233	290	-5	3
Foreign	3/22/2023	3054	1306	110	26	334	1047	231	1262	927	713	152
Banks	1w Chg	16	8	-4	-1	-3	8	8	-35	37	12	3
	1m Chg	-104	-77	-3	2	-4	8	-31	-101	-1	31	-33
	YTD Chg	80	80	4	-10	46	-11	-29	-52	56	105	-28

Source: Federal Reserve H8

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

Reduction in Fed assets and liquidity programs came primarily out of ON RRP and TGA

Dates	Assets Securities	Repo	Discount Window	ВТГР	FDIC bank credit extension	CB Liquidity Swaps	Liabilities Currency	Foreign RRP	ON RRP	TGA	Reserves	Total
3/29/2023	7,926	55	88	64	180	1	2,324	368	2,265	163	3,402	8,756
Change from 3/8-3/15	-8	0	148	12	143	0	3	0	-137	-34	441	298
Change from 3/15-3/22	-3	60	-43	42	37	0	8	3	224	-78	-74	94
Change from 3/22-3/29	-10	-5	-22	11	0	0	5	-3	-15	-37	32	-28
Net change from 3/8-3/20	-22	55	84	64	180	Λ	16	1	72	-149	398	364

Source: BofA Global Research, Federal Reserve

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