

US Rates Watch

Follow the money: FHLBs, MMF, & Fed April 4 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: [Funding map: T-tables for Fed, banks, MMF](#)

Key takeaway: banking system stress remains high, but there are signs of stabilization / tentative improvement. ON RRP reversed typical quarter-end take-up but MMFs continue to see inflows. FHLB Office of Finance (OF) data released yesterday showed FHLB debt outstanding grew \$247b in March.

FHLB activity: FHLB debt issuance is the best barometer for bank advance / loan demand. We now track this using Bloomberg & FHLB OF data.

FHLB net issuance declined \$3b on Monday, April 3 after declining \$23.2b on quarter-end (Exhibit 2), which shows a significant slowdown from \$189b at the start of bank stress. This is likely due to a slowdown in bank demand for funding via FHLB advances. Official FHLB data shows FHLB debt grew \$247b in March (Exhibit 4).

We provide detailed estimates of daily net issuance by type in the Appendix, Exhibit 12.

Money market funds: MMF flows can represent cash moving around the system or cash leaving commercial banks. To track outflows from the banking system, we think the relevant statistic to watch is increase in Fed ON RRP or the Treasury cash balance.

MMF experienced inflows of \$4b on quarter-end, according to Crane data. This brings the two-week average to \$19b in inflows per day. In total, MMFs are up \$323b since March 10th. As FHLB debt declines & bill supply remains low b/c debt limit, MMFs will likely continue to shift into ON RRP, which represents cash leaving the banking system.

ON RRP: take-up dropped \$154b on Monday, a reversal of quarter-end inflows as expected.

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

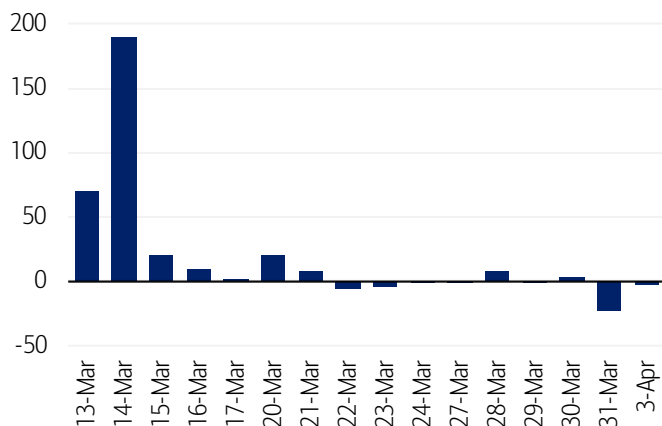
FHLBs	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	3-Apr
Total	20.81	7.34	-5.47	-4.44	-0.62	-0.95	7.45	-1.98	3.47	-23.16	-3.00
Money Markets	20-Mar	21-Mar	22-Mar	23-Mar	24-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	3-Apr
ON RRP Total	2,098.39	2,194.63	2,279.61	2,233.96	2,218.46	2,220.13	2,231.75	2,264.86	2,271.53	2,375.17	2,221.01
ON RRP Change (d/d)	-7.77	96.24	84.98	-45.65	-15.50	1.67	11.62	33.11	6.67	103.64	-154.16
MMF Flows	26.97	47.66	19.16	22.10	-13.20	26.55	41.85	-14.98	26.82	3.53	
MMF Inflow - RRP Change	34.74	-48.58	-65.82	67.75	2.30	24.87	30.23	-48.09	20.15	-100.11	

Source: BofA Global Research, Bloomberg, FHLB Office of Finance, Crane Data. Note: we use estimates of daily net FHLB debt issuance

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

FHLB daily debt issuance has slowed

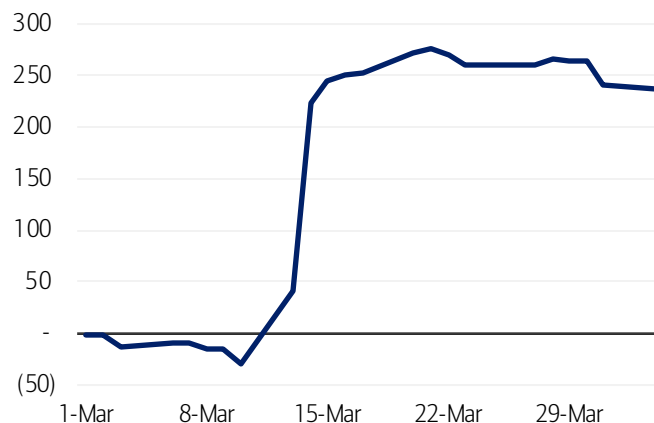


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 3: Cumulative growth in FHLB debt since March 1 (\$bn)

Daily FHLB cumulative debt is roughly \$240bn higher since March 1

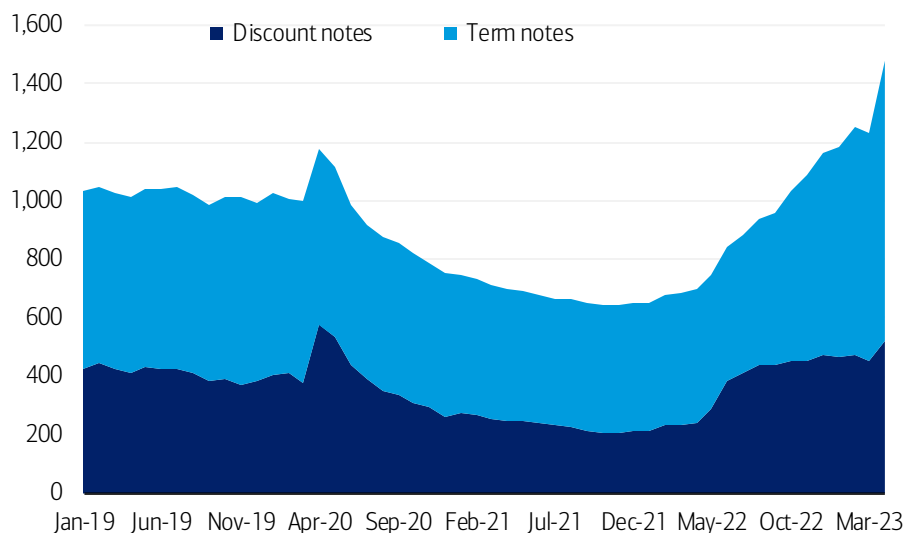


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 4: FHLB debt issuance (\$bn)

Higher FHLB debt issuance leading to more MMF investment

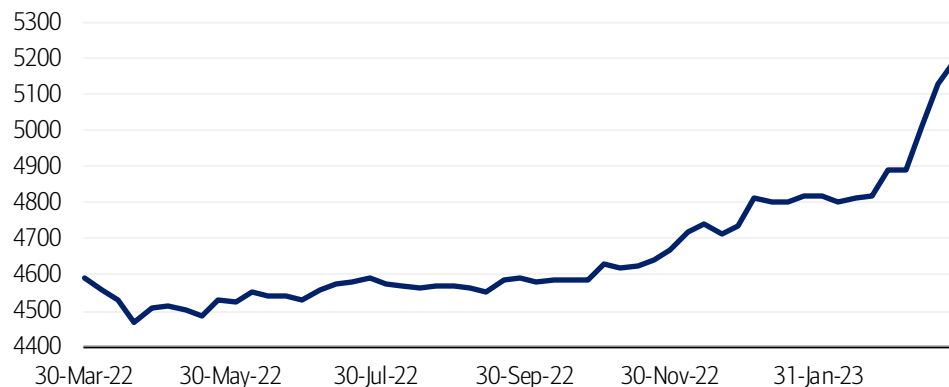


Source: FHLB Office of Finance

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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

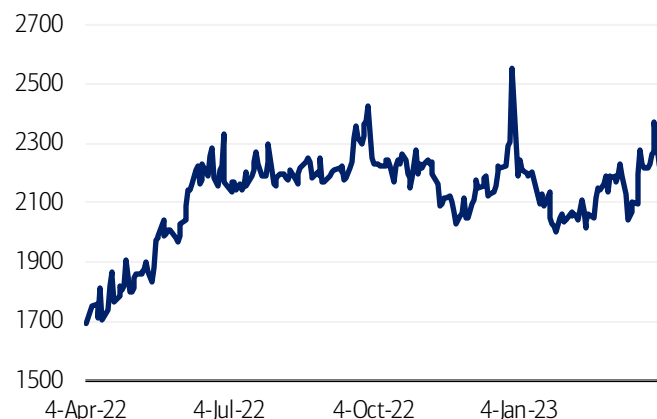
Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
3/24/2023	5,523	1,127	4,283	113	1,772	3,637	620	3,017	506	1,266
3/27/2023	5,550	1,127	4,309	114	1,773	3,663	621	3,042	506	1,268
3/28/2023	5,592	1,131	4,347	115	1,777	3,700	625	3,075	505	1,272
3/29/2023	5,578	1,125	4,338	116	1,779	3,683	619	3,065	506	1,273
3/30/2023	5,606	1,121	4,368	117	1,781	3,709	615	3,094	506	1,275
3/31/2023	5,610	1,126	4,366	118	1,787	3,705	618	3,086	507	1,280
DoD Change	4	4	-2	1	6	-4	3	-7	1	5
WoW Change	87	-1	83	5	15	67	-2	70	1	13

Source: Crane Data

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

ON RRP take-up change from prior day was -\$154.16bn



Source: FRBNY

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

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



Source: Federal Reserve

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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	3/22/2023	23170	3372	1579	2721	610	12105	2783	17354	2529	353	2934
	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 Banks	3/22/2023	20116	2066	1469	2695	276	11058	2552	16092	1602	-360	2782
	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 Banks	3/22/2023	13180	1542	1165	1957	232	6542	1740	10700	905	-392	1967
	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 Banks	3/22/2023	6936	524	304	738	44	4516	812	5392	697	32	815
	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 Banks	3/22/2023	3054	1306	110	26	334	1047	231	1262	927	713	152
	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						Liabilities					Total
	Securities	Repo	Discount Window	BTFF	FDIC bank credit extension	CB Liquidity Swaps	Currency	Foreign RRP	ON RRP	TGA	Reserves	
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 3/8-3/29	-22	55	84	64	180	0	16	1	72	-149	398	364

Source: BofA Global Research, Federal Reserve

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Appendix

Exhibit 12: Daily FHLB debt issuance estimates (\$mn)

We estimate daily issuance from Bloomberg and FHLB Office of Finance website.

	O/N	Term DN	DN Auction	Maturing DN	FRNs	Callable	Bullets	Maturing	Total
3/1/2023	14,450	6,550	-	(21,685)	-	1,317	554	(2,894)	(1,708)
3/2/2023	17,964	4,656	5,650	(17,127)	-	114	789	(6,745)	5,301
3/3/2023	14,476	3,414	-	(30,161)	1,000	120	2,035	(2,354)	(11,470)
3/6/2023	14,930	4,704	-	(18,998)	3,790	754	1,008	(2,547)	3,642
3/7/2023	14,439	3,751	4,915	(17,260)	-	170	284	(1,130)	5,168
3/8/2023	13,485	7,293	-	(31,073)	-	5,095	212	-	(4,989)
3/9/2023	15,250	3,552	3,360	(16,869)	-	585	1,135	(3,980)	3,032
3/10/2023	16,799	3,740	-	(28,651)	2,000	547	58	(5,291)	(14,539)
3/13/2023	67,500	23,039	-	(22,798)	2,810	2,050	347	(3,123)	69,825
3/14/2023	50,200	61,770	6,445	(17,783)	91,819	495	-	(3,550)	189,396
3/15/2023	24,100	40,529	-	(65,448)	21,052	1,720	677	(1,889)	20,740
3/16/2023	14,600	9,988	3,500	(29,369)	10,850	636	132	(1,030)	9,307
3/17/2023	11,585	7,880	-	(24,676)	11,500	175	39	(4,693)	1,810
3/20/2023	12,400	7,341	-	(16,852)	21,712	413	31	(4,235)	20,810
3/21/2023	9,604	5,301	3,675	(15,224)	7,312	227	31	(3,585)	7,341
3/22/2023	11,250	5,916	-	(24,402)	2,500	237	32	(1,000)	(5,468)
3/23/2023	9,780	3,456	5,115	(16,546)	-	105	81	(6,428)	(4,437)
3/24/2023	18,355	1,650	-	(23,633)	4,900	30	74	(2,000)	(624)
3/27/2023	24,070	1,464	-	(33,130)	9,150	4,188	295	(6,987)	(949)
3/28/2023	19,223	4,277	280	(23,576)	2,200	8,744	75	(3,768)	7,455
3/29/2023	17,095	1,957	-	(29,865)	1,000	9,924	162	(2,256)	(1,984)
3/30/2023	15,250	4,213	4,700	(20,936)	-	3,498	129	(3,380)	3,474
3/31/2023	8,000	964	-	(32,122)	-	-	-	-	(23,158)
4/3/2023	9,620	2,421	-	(16,456)	-	7,642	96	(6,325)	(3,002)

Source: Bloomberg, FHLB Office of Finance

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