

US Rates Watch

Follow the money: FHLBs, MMF, & Fed April 7 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. Take-up at the Fed's ON RRP declined \$69b on Thurs, despite limited net issuance of FHLB debt issuance on the day and strong inflows into gov't MMFs in prior days. Fed H41 showed Fed lending to banks via DW & BTFP was little changed but declined for FIMA repo and FDIC bank credit extension.

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

FHLB net issuance increased \$1.5b on Thur, April 5 (Exhibit 2), an end to 4 consecutive days of paydowns, totaling \$40b. Net issuance is still relatively low and remains around the daily issuance average seen in March prior to the bank stress. FHLB debt paydowns will likely drive ON RRP higher. 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 \$8b on Wed, primarily into government inst'l MMFs, an add-on from the \$28b of inflows on Tues. MMFs are likely shifting their holdings into ON RRP as FHLB debt pays down, which represents cash leaving the banking system.

ON RRP: take-up declined \$69b on Thursday, a significant drop. ON RRP use likely dropped due to Good Friday. The Fed's Thursday ON RRP operation will mature on Monday April 10. MMF may have preferred to shift ON RRP activity into sponsored or dealer repo that matures Friday. Some MMF investors may have also preferred to shift into bank deposits due to more limited trading hours on Good Friday. For reference, in 2022 the Thursday before Good Friday in '22 saw a similar sharp \$109b ON RRP decline.

Fed bank data: Fed H.4.1 data from April 5th shows \$74bn w/w decline in Fed balance sheet, with \$20b out of reserves (Exhibit 9). Fed H.4.1 also shows lending to banks via DW & BTFP is little changed but the rotation into BTFP from DW continued. The decline in Fed liabilities was spread across reserves, TGA & ON RRP (Exhibit 11).

Last Friday, the Fed released updated bank H.8 data as of Mar 22 (Exhibit 10). Our take: large US banks saw deposit outflows that shifted into MMF & Fed ON RRP. Large banks facilitated these outflows by lower cash & to a lesser extent securities. Small US banks saw much smaller deposit outflows, implying increased stability of their funding base.

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Abbreviations:

BTFP: bank term funding program
CB: Central bank
DW: discount window
FHLB: Federal Home Loan Banks
FIMA: Foreign and international monetary authorities
GSE: Government sponsored enterprises
Inst'l: institutional
MMF: Money market funds
ON RRP: Overnight reverse repo facility
P&I: principal & interest
TGA: Treasury General Account
w/w: week on week

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

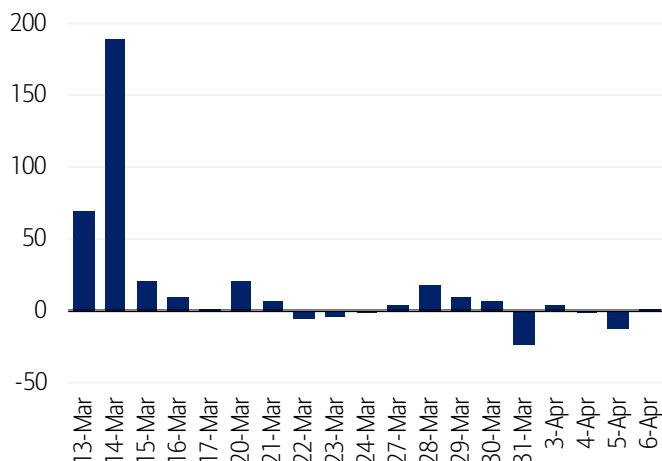
FHLBs	23-Mar	24-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	3-Apr	4-Apr	5-Apr	6-Apr
Total	-4.44	-0.62	3.53	18.47	9.10	7.10	-23.16	4.74	-1.21	-12.09	1.55
Money Markets	23-Mar	24-Mar	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	3-Apr	4-Apr	5-Apr	6-Apr
ON RRP Total	2,233.96	2,218.46	2,220.13	2,231.75	2,264.86	2,271.53	2,375.17	2,221.01	2,219.38	2,243.01	2,173.66
ON RRP Change (d/d)	-45.65	-15.50	1.67	11.62	33.11	6.67	103.64	-154.16	-1.64	23.64	-69.35
MMF Flows	22.10	-13.20	26.55	41.85	-14.98	26.82	3.53	-7.64	27.98	7.87	
MMF Inflow - RRP Change	67.75	2.30	24.87	30.23	-48.09	20.15	-100.11	146.52	29.62	-15.76	

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

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

FHLB daily debt issuance has slowed

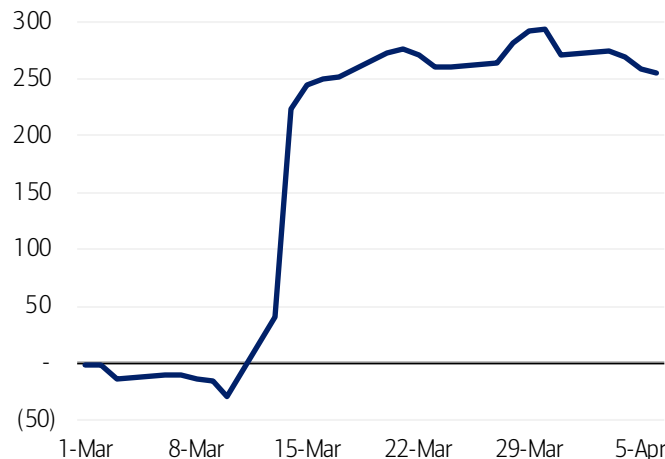


Source: BofA Securities

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

Daily FHLB cumulative debt is roughly \$255bn higher since March 1

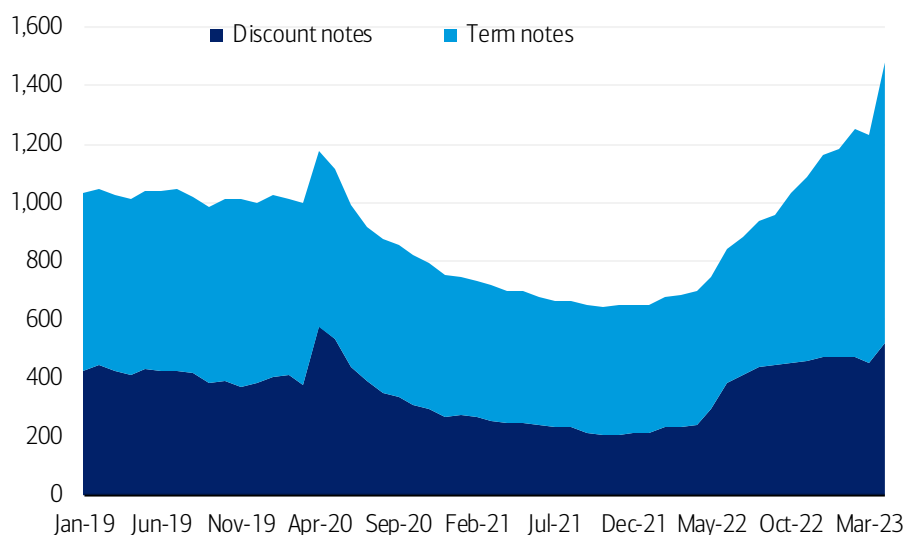


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 4: FHLB debt issuance (\$bn)

Higher FHLB debt issuance leading to more MMF investment

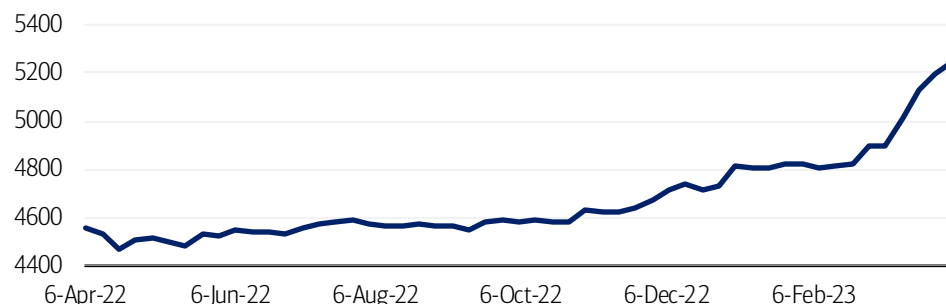


Source: FHLB Office of Finance

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Exhibit 5: MMF AUM (\$bn)

MMFs saw \$49.07bn in flows from prior week



Source: ICI, Bloomberg

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

MMF aum rose \$49bn 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
3/29/2023	5,198	757	4,331	110	1,873	3,325	253	3,061	11	504	1,270	99
4/5/2023	5,247	765	4,366	116	1,895	3,352	256	3,083	12	509	1,282	104
WoW Change	49	8	35	6	22	27	3	23	2	5	12	5
Change since 3/8	353	-29	382	0	69	285	-13	298	-1	-16	84	1

Source: ICI, Bloomberg

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

MMF AUM grew \$28bn from prior day and grew \$334bn in March

Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
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
4/3/2023	5,602	1,138	4,344	120	1,794	3,688	628	3,060	510	1,285
4/4/2023	5,630	1,141	4,368	121	1,799	3,710	630	3,080	511	1,288
4/5/2023	5,638	1,141	4,374	122	1,800	3,715	630	3,085	511	1,289
DoD Change	8	0	6	1	1	5	0	6	1	1
MoM 3/1-3/31	334	-34	370	-2	77	259	-25	284	-10	86

Source: Crane Data

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

Change in ON RRP take-up from prior day was -\$69.35bn

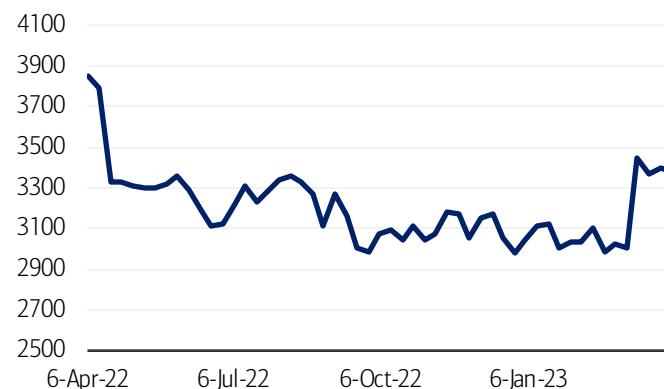


Source: FRBNY

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

Change in reserve balance from prior week was -\$20.45bn



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)

Fed balance sheet declined with lower securities, foreign repo, discount window and FDIC bank credit borrowing

Assets								Liabilities						
Dates	Securities	Repo	Discount Window	BTFP	FDIC bank credit extension	CB Liquidity Swaps	Currency	Foreign RRP	ON RRP	TGA	Reserves	Total		
3/8/2023	7,948	0		5	0	0	2,308	367	2,193	312	3,004	8,392		
3/15/2023	7,940	0		153	12	143	2,311	367	2,056	278	3,444	8,689		
3/22/2023	7,937	60		110	54	180	2,319	370	2,280	200	3,370	8,784		
3/29/2023	7,926	55		88	64	180	2,324	368	2,265	163	3,402	8,756		
4/5/2023	7,877	40		70	79	175	2,324	356	2,243	141	3,381	8,682		
Change from 3/8-3/15	-8	0		148	12	143	3	0	-137	-34	441	298		
Change from 3/15-3/22	-3	60		-43	42	37	8	3	224	-78	-74	94		
Change from 3/22-3/29	-10	-5		-22	11	0	5	-3	-15	-37	32	-28		
Change from 3/29-4/5	-49	-15		-18	15	-5	1	-11	-22	-22	-20	-74		
Net change from 3/8-4/5	-71	40		65	79	175	16	-11	50	-171	378	290		

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	Auction	Maturing DN	FRNs	Callable	Bullets	Maturing	Total
3/1/2023	14,450	6,550	-	(21,685)	-	1,317	574	(2,894)	(1,688)
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	1,013	(2,547)	3,647
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	3,740.45	-	(28,651)	2,000	547	58	(5,291)	(14,539)
3/13/2023	67,500	23,039	-	(22,798)	2,810	2,035	347	(3,123)	69,810
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	1,685	677	(1,889)	20,705
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	8,376	590	(6,987)	3,534
3/28/2023	19,223	4,277	280	(23,576)	4,400	17,488	150	(3,768)	18,474
3/29/2023	17,095	1,957	-	(29,865)	2,000	19,847	325	(2,256)	9,102
3/30/2023	15,250	4,213	4,700	(20,936)	-	6,995	259	(3,380)	7,101
3/31/2023	8,000	964	-	(32,122)	-	-	-	-	(23,158)
4/3/2023	9,620	2,421	-	(16,456)	-	15,283	192	(6,325)	4,735
4/4/2023	11,440	1,453	4,120	(12,553)	-	30	40	(5,736)	(1,206)
4/5/2023	9,800	2,712	-	(23,492)	-	984	184	(2,281)	(12,093)
4/6/2023	9,300	3,140	4,275	(12,694)	-	1,030	44	(3,546)	1,548

Source: Bloomberg, FHLB Office of Finance

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