

US Rates Watch

Follow the money: FHLBs, MMF, & Fed April 13 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 take-up and FHLB debt were little changed on Wednesday, after minimal inflows into MMFs on Tuesday.

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

FHLB saw net paydowns of \$1.2b on Wednesday, April 12 (Exhibit 2), relatively flat after the \$13b in issuance on Tuesday. We provide detailed estimates of daily net issuance by type in the Appendix, Exhibit 13.

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 \$2b on Tuesday, a slowdown, but a continuation of the inflows into government institutional funds (Exhibit 7).

ON RRP: take-up increased \$6.6bn on Wednesday (Exhibit 8), a continuation of the upward trend in ON RRP take-up seen since March 10th. Some of the recent ON RRP increase may be due to debt limit considerations & MMF aversion to rolling maturities into 3-4m bills (3m bills-OIS has cheapened 14bps since end March).

Fed bank data: Last Friday, the Fed released updated bank H.8 data as of Mar 29 (Exhibit 10). H.8 notes show \$174b in assets have been removed from the data due to bridge banks: \$60b in loans, \$114b in assets. Adjusting the headline H.8 data for this implies a much smaller decline in assets and securities holdings, with loans & leases up on the week (Exhibit 11). The sharp decline in MBS holdings that we saw from small banks can also largely be explained from removal of bridge banks from the 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.

13 April 2023

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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
DL: debt limit

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Refer to important disclosures on page 6 to 8.

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Timestamp: 13 April 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

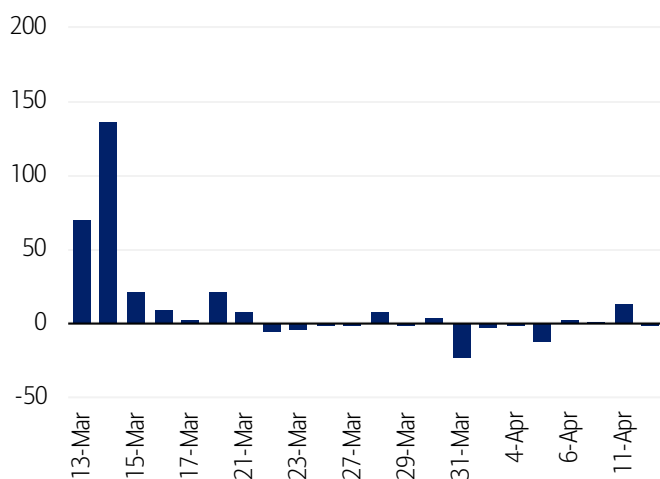
FHLBs	29-Mar	30-Mar	31-Mar	3-Apr	4-Apr	5-Apr	6-Apr	10-Apr	11-Apr	12-Apr
Total	-1.61	3.65	-23.16	-2.85	-1.19	-12.59	2.08	0.57	13.24	-1.17
DN outstanding	526.71	529.94	521.28	516.86	521.32	510.34	514.36	510.69	521.45	518.69
Money Markets	29-Mar	30-Mar	31-Mar	3-Apr	4-Apr	5-Apr	6-Apr	10-Apr	11-Apr	12-Apr
ON RRP Total	2,264.86	2,271.53	2,375.17	2,221.01	2,219.38	2,243.01	2,173.66	2,239.66	2,297.21	2,303.86
ON RRP Change (d/d)	33.11	6.67	103.64	-154.16	-1.64	23.64	-69.35	65.99	57.55	6.65
MMF Flows	-14.98	26.82	3.53	-7.64	27.98	7.87	-38.00	56.60	2.00	
MMF Inflow - RRP Change	-48.09	20.15	-100.11	146.52	29.62	-15.76	31.35	-9.39	-55.55	

Source: BofA Global Research, Bloomberg, FHLB Office of Finance, Crane Data. Note: For FHLB data 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

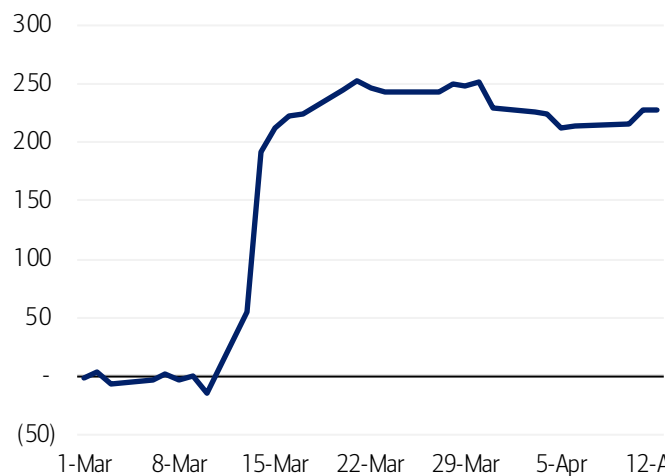


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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

Daily FHLB cumulative debt is roughly \$230bn higher since March 1

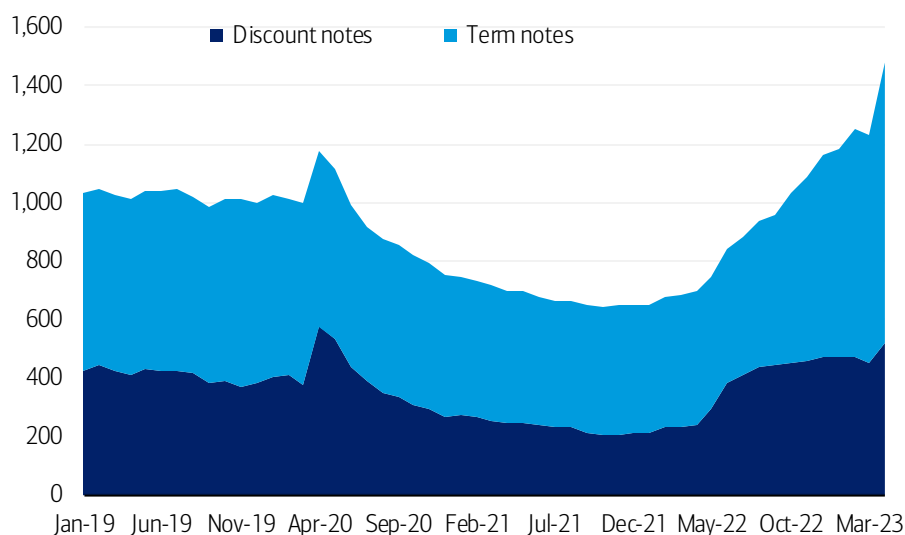


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 4: FHLB debt issuance (\$bn)

Higher FHLB debt issuance leading to more MMF investment

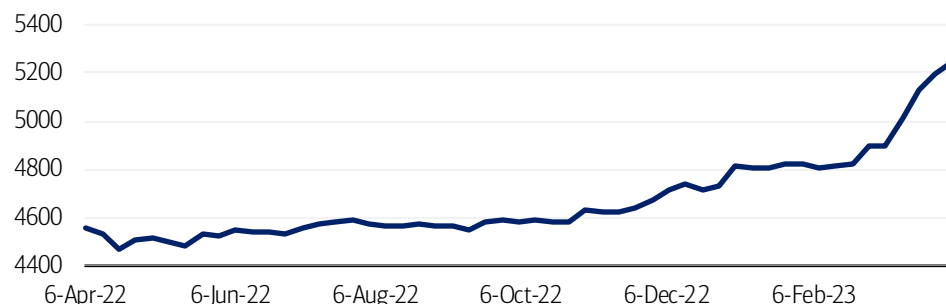


Source: FHLB Office of Finance

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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 increased \$2bn from prior day

Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
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
4/6/2023	5,600	1,142	4,335	123	1,802	3,674	630	3,045	512	1,290
4/10/2023	5,656	1,141	4,392	124	1,809	3,724	628	3,096	513	1,296
4/11/2023	5,658	1,140	4,395	123	1,810	3,725	627	3,098	513	1,297
DoD Change	2	0	3	0	1	1	-1	2	0	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 \$6.65bn

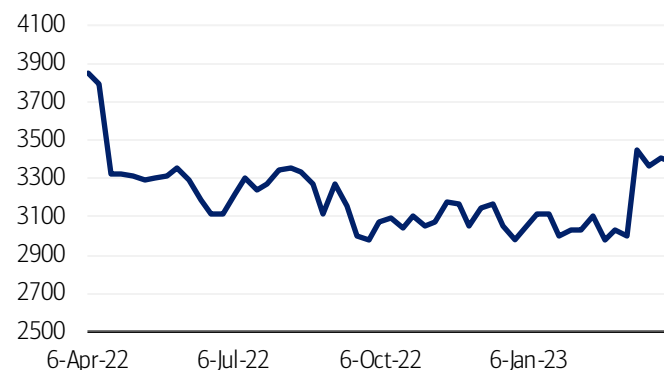


Source: FRBNY

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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 increase but borrowings declined

		Total	Assets						Liabilities			
			Cash	UST & Agy	MBS	Repo & FF	Loans & Leases	Other	Deposits	Borrowings	Net due to related foreign offices	Other
All	3/29/2023	23096	3459	1556	2609	626	12066	2780	17350	2410	388	2948
Banks	1w Chg	-23	73	-19	-97	16	2	3	42	-118	35	18
	1m Chg	199	380	-71	-137	27	13	-13	-312	417	77	18
	YTD Chg	121	364	-97	-164	25	-39	32	-595	556	118	42
Domestic	3/29/2023	20006	2157	1446	2581	273	11015	2533	16120	1497	-378	2768
Banks	1w Chg	-59	77	-20	-98	-3	-2	-13	74	-105	-18	-11
	1m Chg	208	431	-65	-140	5	1	-24	-193	442	-33	-8
	YTD Chg	5	288	-101	-155	-40	-32	45	-511	513	-40	42
Large	3/29/2023	13254	1632	1147	1954	230	6559	1731	10748	929	-412	1989
Banks	1w Chg	83	90	-18	-3	-2	19	-3	49	24	-20	31
	1m Chg	306	341	-42	-11	5	34	-20	18	288	-30	30
	YTD Chg	134	218	-69	-7	-34	-16	42	-257	352	-37	75
Small	3/29/2023	6752	525	299	627	43	4456	802	5371	568	34	779
Banks	1w Chg	-142	-13	-3	-95	-1	-21	-10	26	-129	2	-41
	1m Chg	-98	90	-22	-129	-1	-33	-4	-212	155	-3	-38
	YTD Chg	-129	71	-33	-148	-6	-16	3	-254	161	-3	-33
Foreign	3/29/2023	3090	1302	111	27	353	1051	247	1230	914	766	180
Banks	1w Chg	36	-4	1	1	19	4	16	-32	-13	53	29
	1m Chg	-9	-51	-6	2	22	12	11	-119	-25	110	26
	YTD Chg	116	75	5	-9	65	-7	-13	-85	43	157	0

Source: Federal Reserve H8

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Exhibit 11: US Commercial Bank balance sheet, after Bridge Bank adjustment (\$bn)

H8 notes showed \$174b of the decline in bank assets was due to Bridge Bank divestments

	Current	Change since 3/15	Bridge bank adjustment	Net of Bridge Bank Adj
Total Assets	20006	-213	174	-39
Cash	2157	2		2
UST, Agy, MBS	4027	-169	114	-55
Loans and leases	11015	-36	60	24
Other	2807	-10		-10

Source: BofA Global Research, Federal Reserve H8

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Exhibit 12: 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 13: Daily FHLB debt issuance estimates (\$mn)

We estimate daily issuance from Bloomberg and FHLB Office of Finance website. Data is subject to revisions

	O/N	Term DN	Auction	Maturing DN	FRNs	Callable	Bullets	Maturing	Total
3/1/2023	14,450	6,550	-	(21,685)	-	1,317	593	(2,794)	(1,569)
3/2/2023	17,964	4,656	5,650	(17,127)	-	114	789	(6,685)	5,361
3/3/2023	14,476	3,414	-	(30,161)	1,000	120	2,035	(1,949)	(11,065)
3/6/2023	14,930	4,704	-	(18,998)	3,790	754	1,018	(2,335)	3,863
3/7/2023	14,439	3,751	4,915	(17,260)	-	170	284	(1,000)	5,298
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	(5,206)	(14,454)
3/13/2023	67,500	23,039	-	(22,798)	2,810	2,035	347	(2,750)	70,183
3/14/2023	50,200	61,770	6,445	(71,183)	91,819	495	-	(3,450)	136,096
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	(830)	9,507
3/17/2023	11,585	7,880	-	(24,676)	11,500	175	39	(4,583)	1,920
3/20/2023	12,400	7,341	-	(16,852)	21,712	413	31	(3,650)	21,395
3/21/2023	9,604	5,301	3,675	(15,224)	7,312	227	31	(3,545)	7,381
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	(6,400)	(4,409)
3/24/2023	18,355	1,650	-	(23,633)	4,900	30	74	(1,580)	(204)
3/27/2023	24,070	1,464	-	(33,130)	9,150	4,188	295	(6,323)	(285)
3/28/2023	19,223	4,277	280	(23,576)	2,200	8,744	75	(3,247)	7,977
3/29/2023	17,095	1,957	-	(29,865)	1,000	9,924	162	(1,881)	(1,609)
3/30/2023	15,250	4,213	4,700	(20,936)	-	3,498	129	(3,202)	3,652
3/31/2023	8,000	964	-	(32,122)	-	-	-	-	(23,158)
4/3/2023	9,620	2,421	-	(16,456)	-	7,642	96	(6,175)	(2,852)
4/4/2023	11,440	1,453	4,120	(12,553)	-	15	20	(5,681)	(1,186)
4/5/2023	9,800	2,712	-	(23,492)	-	492	74	(2,172)	(12,586)
4/6/2023	9,300	3,140	4,275	(12,694)	-	1,030	44	(3,011)	2,083
4/10/2023	9,600	6,010	-	(19,286)	-	5,213	520	(1,485)	572
4/11/2023	9,600	7,455	5,255	(11,553)	-	2,350	328	(200)	13,236
4/12/2023	16,155	5,059	-	(23,974)	50	1,723	149	(330)	(1,168)

Source: Bloomberg, FHLB Office of Finance. Note: We use estimates of daily FHLB debt issuance

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