

# US Rates Watch

## Follow the money: FHLBs, MMF, & Fed April 14 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 and 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 is showing modest signs of improvement. Fed emergency lending is slowly falling. ON RRP take-up is rising but likely due to MMFs aversion for debt limit impacted 3-4m bills. FHLB continues net paydowns

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

FHLB saw net paydowns of \$1.2b on Thursday, April 13 (Exhibit 2), for the second day in a row. 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.

According to Crane Data, MMFs experienced inflows of \$8b on Wednesday, a continuation of the inflows into government institutional funds (Exhibit 7). ICI data showed a \$30b increase from prior week, \$21bn into government institutional.

**ON RRP:** take-up increased \$17.8bn on Thursday (Exhibit 8), a continuation of the upward trend in ON RRP take-up seen since March 10<sup>th</sup>. Some of the recent ON RRP increase may be due to debt limit considerations and MMF aversion to rolling maturities into 3-4m bills. Indeed, 3-4m bills in X-date zone cheapening while 1m bills richening

**Fed bank data:** Fed H.4.1 data from April 12<sup>th</sup> shows \$17bn w/w decline in Fed balance sheet, with \$34b out of reserves, but \$61b into ON RRP (Exhibit 9). Fed H.4.1 also shows lending to banks via DW & BTFP is little changed but declining.

Last Friday, the Fed released updated bank H.8 data as of Mar 29 (Exhibit 10). H8 notes show \$174b in assets have been removed from the data due to bridge banks: \$60b in loans, \$114b in assets. Adjusting the headline H8 data for this implies a much smaller decline in assets and securities holdings, with loans and 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.

14 April 2023

Rates Research  
United States

**Katie Craig**  
Rates Strategist  
BofAS  
+1 646 855 6625  
[katie.craig@bofa.com](mailto:katie.craig@bofa.com)

**Mark Cabana, CFA**  
Rates Strategist  
BofAS  
+1 646 855 9591  
[mark.cabana@bofa.com](mailto:mark.cabana@bofa.com)

**US Rates Research**  
BofAS  
+1 646 855 8846

[See Team Page for List of Analysts](#)

### 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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Timestamp: 14 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 &amp; MMF inflows; funding markets are working

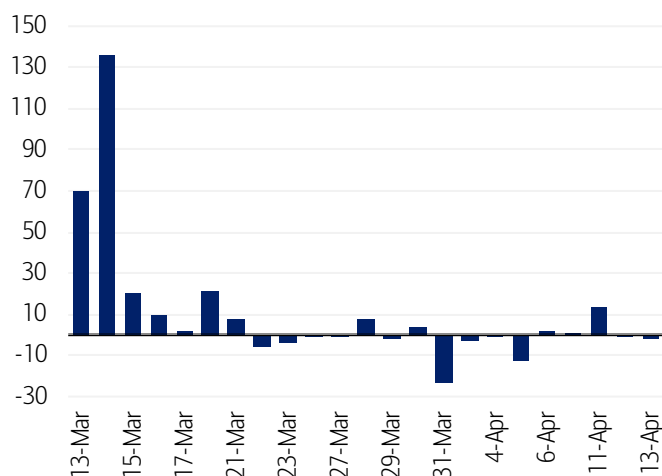
FHLBs	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	3-Apr	4-Apr	5-Apr	6-Apr	10-Apr	11-Apr	12-Apr	13-Apr
Total	-0.28	7.98	-1.61	3.65	-23.16	-2.85	-1.19	-12.59	2.08	0.57	13.24	-1.17	-1.83
DN outstanding	537.32	537.52	526.71	529.94	521.28	516.86	521.32	510.34	514.36	510.69	521.45	518.69	517.08
Money Markets	27-Mar	28-Mar	29-Mar	30-Mar	31-Mar	3-Apr	4-Apr	5-Apr	6-Apr	10-Apr	11-Apr	12-Apr	13-Apr
ON RRP Total	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	2,239.66	2,297.21	2,303.86	2,321.70
ON RRP Change (d/d)	1.67	11.62	33.11	6.67	103.64	-154.16	-1.64	23.64	-69.35	65.99	57.55	6.65	17.84
MMF Flows	26.55	41.85	-14.98	26.82	3.53	-7.64	27.98	7.87	-38.00	56.60	2.00	8.19	
MMF Inflow - RRP Change	24.87	30.23	-48.09	20.15	-100.11	146.52	29.62	-15.76	31.35	-9.39	-55.55	1.54	

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

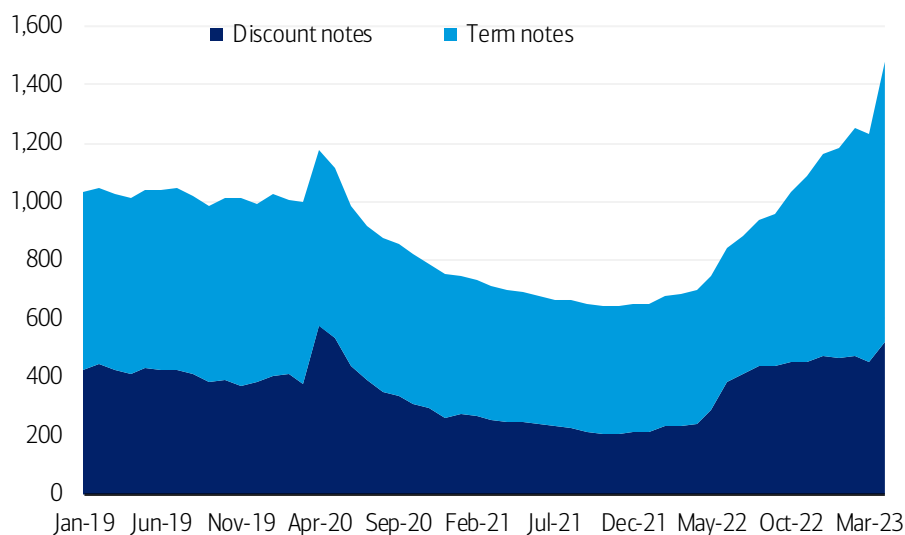


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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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 \$30.27bn in flows from prior week



Source: ICI, Bloomberg

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

MMF aum rose \$30bn 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
4/5/2023	5,247	765	4,366	116	1,895	3,352	256	3,083	12	509	1,282	104
4/12/2023	5,277	769	4,392	116	1,904	3,374	257	3,105	12	511	1,287	105
WoW Change	30	3	27	0	8	22	1	21	0	2	5	1
Change since 3/8	384	-26	409	0	77	307	-12	320	-1	-14	89	1

Source: ICI, Bloomberg

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

MMF AUM increased \$8bn from prior day

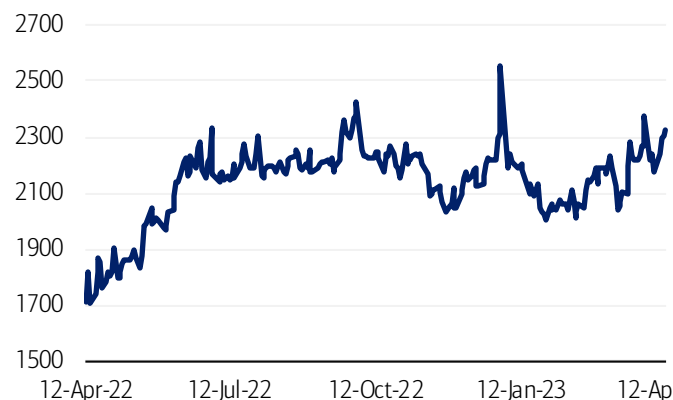
Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
4/5/2023	5,638	1,141	4,374	122	1,800	3,715	630	3,085	511	1,289
4/6/2023	5,600	1,142	4,335	123	1,802	3,674	630	3,045	512	1,290
4/10/2023	5,656	1,141	4,392	124	1,809	3,724	628	3,096	513	1,296
4/11/2023	5,658	1,140	4,395	123	1,810	3,725	627	3,098	513	1,297
4/12/2023	5,667	1,141	4,402	123	1,808	3,735	628	3,108	514	1,295
DoD Change	8	1	8	-1	-2	11	1	10	0	-2
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 \$17.84bn

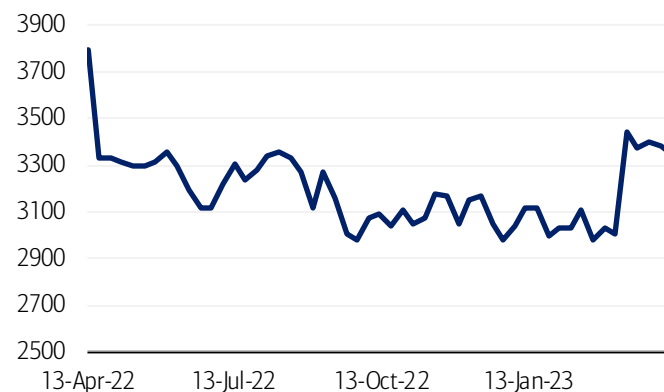


Source: FRBNY

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

Change in reserve balance from prior week was -\$33.8bn



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 Banks	3/29/2023	23096	3459	1556	2609	626	12066	2780	17350	2410	388	2948
	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 Banks	3/29/2023	20006	2157	1446	2581	273	11015	2533	16120	1497	-378	2768
	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 Banks	3/29/2023	13254	1632	1147	1954	230	6559	1731	10748	929	-412	1989
	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 Banks	3/29/2023	6752	525	299	627	43	4456	802	5371	568	34	779
	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 Banks	3/29/2023	3090	1302	111	27	353	1051	247	1230	914	766	180
	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)**

Cash in banking system exceeded Fed balance sheet growth due to lower ON RRP

Dates	Assets						Liabilities						Total
	Securities	Repo	Discount Window	BTFP	FDIC bank credit extension	CB Liquidity Swaps	Currency	Foreign RRP	ON RRP	TGA Reserves			
3/8/2023	7,948	0		5	0	0	2,308	367	2,193	312	3,004	8,392	
4/5/2023	7,877	40		70	79	175	2,324	356	2,243	141	3,381	8,682	
4/12/2023	7,878	30		68	72	173	2,324	373	2,304	87	3,348	8,665	
Change from 4/5-4/12	1	-10		-2	-7	-2	0	16	61	-54	-34	-17	
Change from 3/8-4/12	-71	30		63	72	173	16	6	111	-225	344	273	

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	603	(2,794)	(1,559)
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	1,023	(2,335)	3,868
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)
4/13/2023	2,750	3,625	2,935	(10,918)	-	751	126	(1,100)	(1,831)

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

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## Research Analysts

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**Ralph Axel**

Rates Strategist  
BofA  
[ralph.axel@bofa.com](mailto:ralph.axel@bofa.com)

**Bruno Braizinha, CFA**

Rates Strategist  
BofA  
[bruno.braizinha@bofa.com](mailto:bruno.braizinha@bofa.com)

**Mark Cabana, CFA**

Rates Strategist  
BofA  
[mark.cabana@bofa.com](mailto:mark.cabana@bofa.com)

**Katie Craig**

Rates Strategist  
BofA  
[katie.craig@bofa.com](mailto:katie.craig@bofa.com)

**Meghan Swiber, CFA**

Rates Strategist  
BofA  
[meghan.swiber@bofa.com](mailto:meghan.swiber@bofa.com)

**Anna (Caiyi) Zhang**

Rates Strategist  
BofA  
[cai yi.zhang@bofa.com](mailto:cai yi.zhang@bofa.com)

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