

US Rates Watch

Follow the money: FHLBs, MMF, & Fed April 26 update

Money map: FHLBs, MMF, & Fed

Key takeaway: banking system stress remains elevated but is showing modest signs of improvement. FHLBs increased debt issuance on Tuesday and announced more for future dates. Increased issuance may be due to bank advance demand or precautionary funding given bank earnings, continued outflows into MMFs, and withdrawals relating to tax receipts.

FHLB activity: FHLB debt issuance grew \$11b on Tuesday, April 25th (Exhibit 2), with \$14bn in net DN issuance. Market color from FHLBs noted a broad range of reasons for higher issuance, including advances to banks, pre-funding, and precautionary funding. FHLB also announced \$14b of FRN issuance today, the most since March 17th, implying a pivot from callables to FRNs. We expect issuance could remain elevated given increased market uncertainty/pressures since bank earnings.

Money market funds: According to Crane data, MMF AUM increased \$16b on April 24th, primarily into gov't institutional funds (Exhibit 6). Institutional MMF AUM is now above levels seen ahead of the April 18th Tax Day.

ON RRP: take-up declined \$33bn on Tuesday, despite \$22b in net T-bill paydowns (Exhibit 8). This may have been driven by the recent pickup in FHLB debt issuance.

We expect MMF take-up at the ON RRP to increase heading into the X-date as MMFs typically want to avoid bills maturing following projected X-dates. Some gov't MMFs are Treasury-only & cannot invest at Fed RRP, contributing to richening in short-dated bills.

Tax receipts: continue to trend upward as inflows from individual checks get processed (Exhibit 12). The \$10bn in non-withheld individual tax receipts on Tuesday contributed to the \$26b jump in the TGA on the day (Exhibit 13). Continued inflows into the TGA will likely draw primarily out of Fed reserve balances when we get the H41 data on Thursday.

Fed data: Fed H.4.1 for the week ending April 19 showed a \$183b drop in reserves and a \$179b increase in TGA. The shift from reserves to TGA was due to the April 18th Tax Day. The decline in the ON RRP was less severe, though MMF AUM declined \$69b over the same period, as institutional clients likely withdrew some of the cash they've recently moved into MMFs for corporate tax payments.

Notably, Fed emergency liquidity lending also ticked up \$2b after several weeks of declines, again likely driven by banks facing deposit outflows due to the April tax date.

Note: Our "Follow the Money" publication has shifted to a weekly timeline, but we will continue to make updates on an ad hoc basis as necessary

26 April 2023

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Abbreviations:

BTFFP: 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
WTD: week to date
DN: Discount Note
AUM: Assets under management

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Refer to important disclosures on page 7 to 9.

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Timestamp: 26 April 2023 06:00AM EDT

Exhibit 1: Data on FHLB issuance + ON RRP / MMF flows (\$bn)

FHLB net issuance of DNs saw a notable pickup on Apr 25

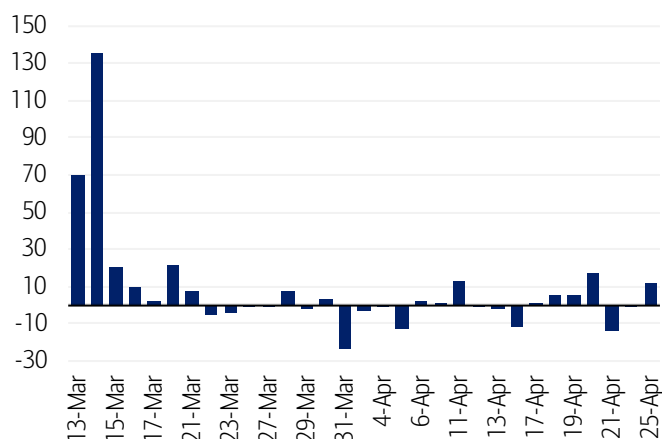
FHLBs	13-Apr	14-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	24-Apr	25-Apr
Total	-1.83	-11.33	0.35	5.69	5.01	17.37	-13.47	-1.27	11.47
DN outstanding	517.08	507.97	505.69	509.94	508.31	518.65	507.19	507.25	521.49
Money Markets	13-Apr	14-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	24-Apr	25-Apr
ON RRP Total	2,321.70	2,253.79	2,256.85	2,238.99	2,294.68	2,277.26	2,290.02	2,308.54	2,275.40
ON RRP Change (d/d)	17.84	-67.91	3.06	-17.85	55.68	-17.42	12.76	18.51	-33.14
MMF Flows	-0.42	-37.50	9.87	-8.51	-9.17	22.51	3.43	15.97	
MMF Inflow - RRP Change	-18.26	30.41	6.81	9.34	-64.85	39.93	-9.33	-2.54	

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 \$243bn higher since March 1

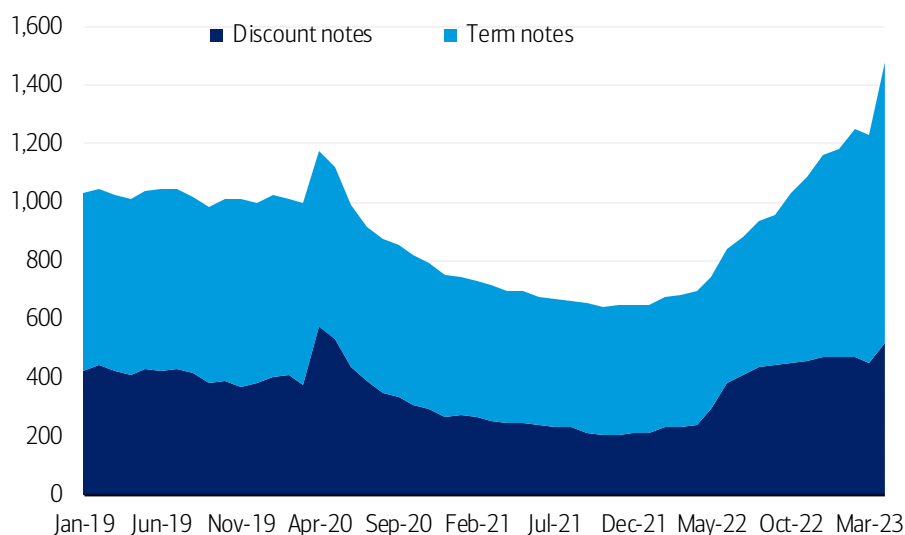


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 4: FHLB debt issuance (\$bn)

Higher FHLB debt issuance leading to more MMF investment

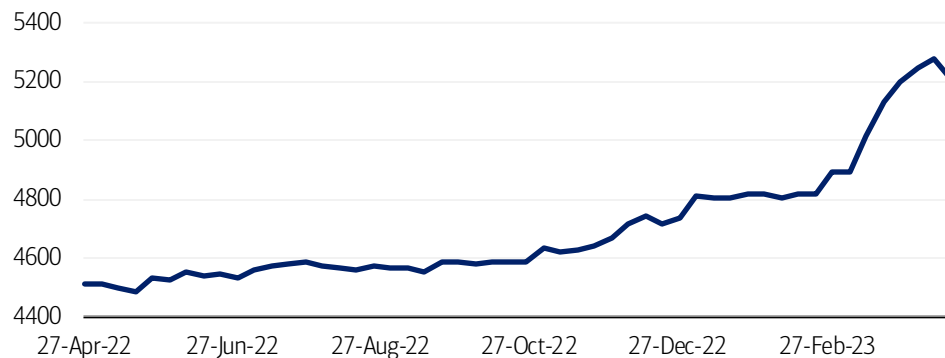


Source: FHLB Office of Finance

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Exhibit 5: MMF AUM (\$bn)

MMFs saw -\$68.64bn in flows from prior week



Source: ICI, Bloomberg

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

MMF aum declined \$69bn from prior week, likely due to corporate tax-date

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
4/12/2023	5,277	769	4,392	116	1,904	3,374	257	3,105	12	511	1,287	105
4/19/2023	5,209	767	4,332	110	1,894	3,315	257	3,048	11	510	1,284	99
WoW Change	-69	-2	-60	-6	-10	-59	-1	-57	-1	-1	-3	-6
Change since 3/8	315	-28	349	-6	67	248	-12	262	-2	-15	86	-4

Source: ICI, Bloomberg

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

MMF AUM grew \$16b from prior day, \$21b WoW

Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
4/18/2023	5,629	1,161	4,350	118	1,802	3,709	650	3,059	511	1,291
4/19/2023	5,622	1,164	4,341	117	1,801	3,704	652	3,052	512	1,289
4/20/2023	5,644	1,171	4,358	115	1,805	3,724	658	3,066	513	1,292
4/21/2023	5,648	1,172	4,361	115	1,803	3,730	658	3,072	514	1,289
4/24/2023	5,664	1,174	4,376	114	1,805	3,745	659	3,086	515	1,290
DoD Change	16	2	14	-1	2	15	1	14	1	1
WoW change	21	16	14	-9	3	28	12	15	4	-1

Source: Crane Data

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

ON RRP take-up decreased \$33.14bn from prior day

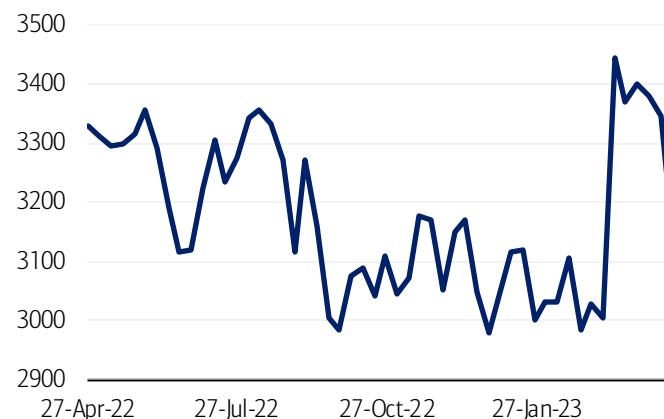


Source: FRBNY

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

Change in reserve balance from prior week was -\$182.67bn



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	4/12/2023	22951	3353	1549	2604	616	12051	2777	17380	2399	262	2910
	1w Chg	-35	-28	-4	-18	-2	-9	26	-49	43	-60	32
	1m Chg	-306	-100	-64	-119	12	-39	4	-110	-83	-100	-13
	YTD Chg	-25	258	-104	-169	15	-54	29	-565	544	-8	4
Domestic Banks	4/12/2023	19935	2081	1443	2579	261	11015	2555	16132	1447	-400	2756
	1w Chg	-40	-39	-2	-16	-1	-5	23	-49	11	-13	11
	1m Chg	-284	-73	-56	-118	-5	-35	5	-61	-145	-60	-17
	YTD Chg	-66	213	-104	-158	-52	-32	67	-499	463	-61	31
Large Banks	4/12/2023	13194	1601	1143	1946	221	6558	1725	10736	893	-431	1995
	1w Chg	-37	-36	-2	-15	1	-7	22	-41	1	-11	14
	1m Chg	-78	-20	-50	-10	-2	20	-16	-60	15	-59	27
	YTD Chg	75	187	-73	-14	-44	-17	36	-270	317	-55	83
Small Banks	4/12/2023	6742	480	300	633	41	4457	830	5396	553	31	761
	1w Chg	-3	-3	0	-1	-2	2	1	-8	10	-2	-3
	1m Chg	-206	-54	-7	-108	-3	-55	21	-1	-160	-1	-44
	YTD Chg	-141	26	-31	-144	-34	-15	31	-229	146	-6	-52
Foreign Banks	4/12/2023	3016	1272	106	26	354	1036	222	1248	952	662	153
	1w Chg	5	11	-3	-2	-1	-4	3	-1	32	-47	21
	1m Chg	-22	-27	-8	-1	18	-3	-1	-49	62	-40	5
	YTD Chg	41	45	0	-11	67	-22	-38	-66	81	53	-27

Source: Federal Reserve H8

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

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

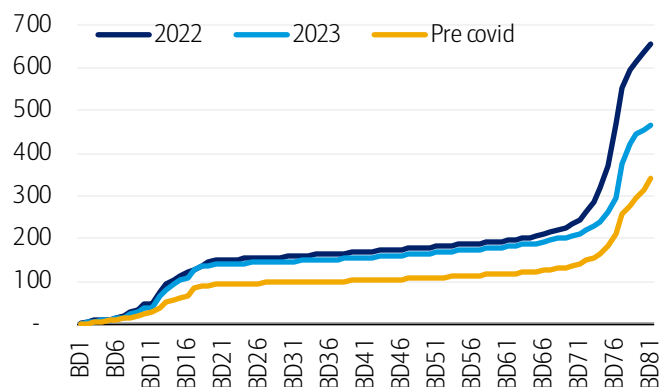
Dates	Assets					Liabilities						Total
	Securities	Repo	Discount Window	BTFP	FDIC bank credit extension	CB Liquidity Swaps	Currency	Foreign RRP	ON RRP	TGA	Reserves	
3/8/2023	7,948	0		5	0	0	2,308	367	2,193	312	3,004	8,392
4/12/2023	7,878	30		68	72	173	2,324	373	2,304	87	3,348	8,665
4/19/2023	7,860	20		70	74	173	2,323	372	2,295	265	3,165	8,643
Change from 4/12-4/19	-17	-10		2	2	0	-1	-1	-9	179	-183	-21
Change from 3/8-4/19	-88	20		65	74	173	15	5	101	-47	161	252

Source: BofA Global Research, Federal Reserve

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Exhibit 12: Cumulative individual tax receipts YTD (\$bn)

'23 receipts are well below '22 but above the pre-COVID average

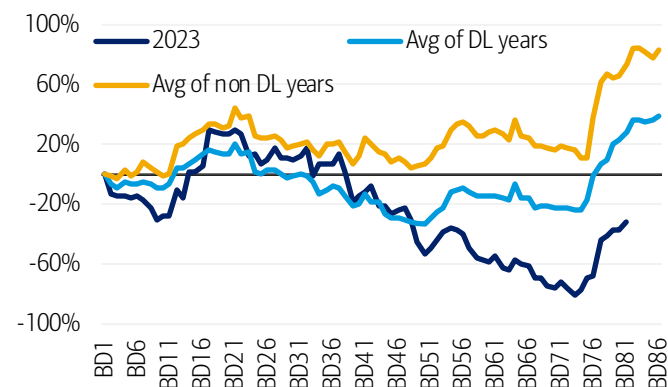


Source: BofA Global Research, Treasury

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Exhibit 13: Percent change in TGA YTD

TGA was declining continuously in '23 due to debt limit dynamics



Source: BofA Global Research, Treasury

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Appendix

Exhibit 14: 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)	(10,714)
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	144	(2,172)	(12,516)
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	258	(200)	13,166
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)
4/14/2023	11,041	3,882	-	(24,032)	378	1,040	55	(3,690)	(11,327)
4/17/2023	11,896	5,142	-	(19,320)	-	3,605	428	(1,400)	351
4/18/2023	13,127	4,043	3,935	(16,850)	500	2,502	151	(1,722)	5,686
4/19/2023	16,014	8,047	-	(25,694)	1,000	5,460	187	-	5,014
4/20/2023	18,737	6,788	7,240	(22,421)	1,000	6,882	460	(1,317)	17,368
4/21/2023	15,984	2,654	-	(30,101)	2,000	3,137	84	(7,225)	(13,467)
4/24/2023	17,600	5,499	-	(23,041)	-	4,645	30	(6,005)	(1,272)
4/25/2023	15,850	6,807	11,335	(19,746)	2,550	1,253	130	(6,713)	11,466

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

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