

US Rates Watch

Follow the money: FHLBs, MMF, & Fed May 22 update

Money map: FHLBs, MMF, & Fed

Key takeaway: banking system stress remains elevated, though the rate of increase in funding need has slowed. FHLB net issuance remains positive and is in part being lent out in Fed funds, implying the issuance is less a reflection of bank funding needs and may be more a result of FHLB liquidity management.

FHLB activity: According to our estimates, FHLB net issuance picked up \$23b last week, averaging ~\$5b/day. Fed funds volumes have also picked up (Exhibit 5), implying FHLBs may be lending out excess cash beyond what they are providing in advances. FHLBs may also build liquidity in anticipation of large maturities in coming weeks or even months, therefore higher FHLB issuance may not reflect bank funding needs.

Money market funds: According to Crane data, MMF AUM grew \$27b on the week ending Thursday, May 18 (Exhibit 7), with inflows spread across prime and government, retail and institutional.

Treasury only MMFs typically see outflows heading into X-dates as investors want to avoid investing in Treasury debt. We have already seen \$4.7b in outflows WoW.

ON RRP: take-up increased \$48bn on the week ending Friday, May 19 (Exhibit 9). Higher ON RRP take-up is likely driven by MMF inflows and concerns around the debt limit pushing risk averse MMFs out of Treasury bills.

We expect MMF take-up at the ON RRP to increase heading into the June 1 X-date as MMFs typically want to avoid bills maturing following projected X-dates.

Fed data: Fed H.8 data for the week ending May 10th showed bank balance sheets grew by \$58b on a non-seasonally adjusted basis, led by foreign banks (Exhibit 11). Foreign banks largely accounted for the growth in reserves that week, with cash balances increasing by \$66bn. Deposits declined across large domestic banks on the liability side, complimented by a drop in securities holdings and loans on the asset side. The drop in securities holdings alongside the pickup in repo suggests that banks may be less inclined to roll over maturing securities perhaps on the back of debt limit concerns.

The Fed's H.4.1 data for the week ending May 17th showed reserves growing for the second straight week, primarily driven by outflows from the TGA and ON RRP. Fed balance sheet data also reflected a small \$4b continued increase in the BTFP, which suggests some banks are still in need of funding. We recently updated our Fed balance sheet forecast in [Fed balance sheet forecast: May update](#)

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

22 May 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
Gov't: government
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

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Refer to important disclosures on page 6 to 8.

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Timestamp: 22 May 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

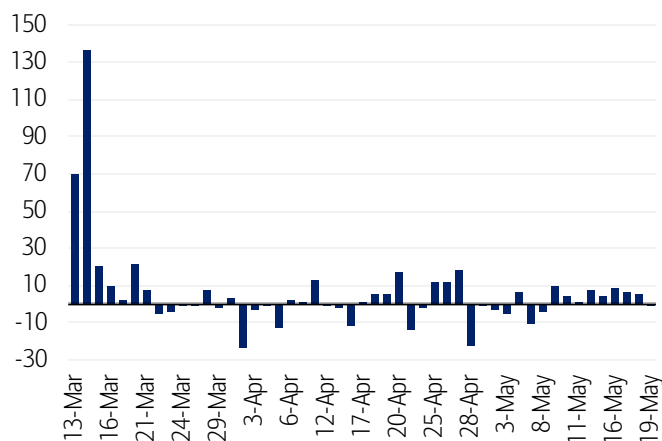
FHLBs	9-May	10-May	11-May	12-May	15-May	16-May	17-May	18-May	19-May
Total	9.95	4.38	0.22	7.54	4.09	8.24	6.52	5.36	-1.35
DN outstanding	491.82	486.22	486.40	480.06	480.70	485.75	482.89	486.84	475.02
Money Markets	9-May	10-May	11-May	12-May	15-May	16-May	17-May	18-May	19-May
ON RRP Total	2,222.86	2,233.15	2,242.24	2,229.20	2,220.93	2,203.21	2,213.68	2,238.27	2,276.72
ON RRP Change (d/d)	5.26	10.28	9.09	-13.04	-8.27	-17.71	10.46	24.59	38.45
MMF Flows	13.55	-7.12	15.26	-8.37	11.25	-2.04	4.50	21.81	
MMF Inflow - RRP Change	8.29	-17.40	6.17	4.68	19.52	15.68	-5.96	-2.78	

Source: BofA Global Research, Bloomberg, FHLB Office of Finance, Crane Data. Note: For FHLB data we use estimates of daily net issuance, we adjust the month-end DN outstanding number to reflect FHLB OF

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

FHLB daily debt issuance has slowed

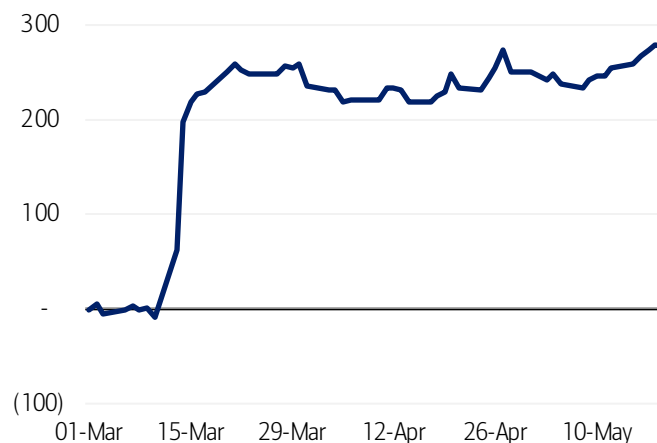


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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

Daily FHLB cumulative debt is roughly \$278bn higher since March 1

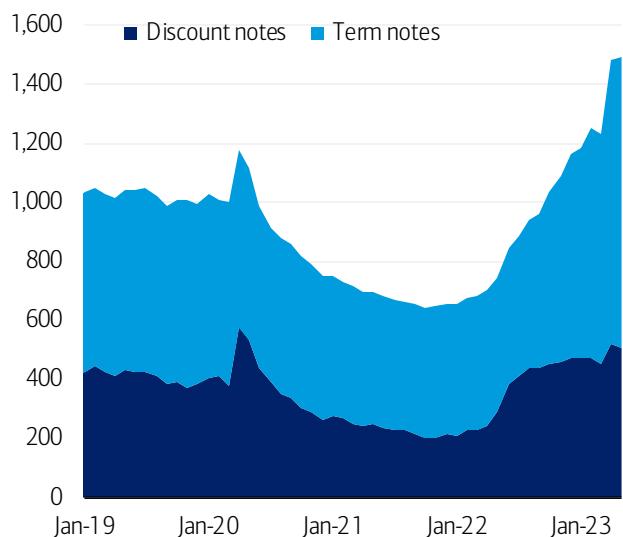


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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Exhibit 4: FHLB debt issuance (\$bn)

Higher FHLB debt issuance leading to more MMF investment



Source: BofA Global Research, FHLB Office of Finance

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Exhibit 5: Fed funds volumes (\$bn)

Fed funds volumes decreased -\$3bn from prior day



Source: FRBNY

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Exhibit 6: MMF AUM (\$bn)

MMFs saw \$18.33bn in flows from prior week



Source: ICI, Bloomberg

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Exhibit 7: 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
5/10/2023	5,328	785	4,430	113	1,937	3,391	260	3,120	11	525	1,310	102
5/17/2023	5,342	789	4,440	113	1,952	3,390	257	3,122	11	532	1,318	102
WoW Change	14	4	10	0	14	-1	-3	2	0	7	7	0
Change since 3/8	448	-5	456	-3	125	323	-12	337	-2	7	120	-1

Source: ICI, Bloomberg

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Exhibit 8: Daily Crane MMF AUM (\$bn)

MMF AUM fell \$8b from prior day, mostly out of gov't institutional

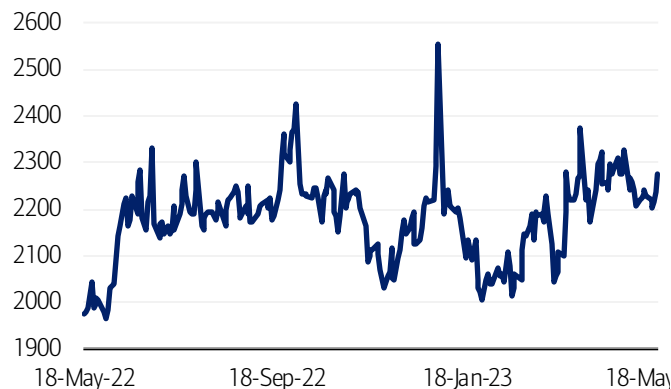
Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
5/12/2023	5,749	1,183	4,447	119	1,876	3,754	653	3,101	530	1,346
5/15/2023	5,760	1,186	4,455	119	1,881	3,760	655	3,105	531	1,350
5/16/2023	5,758	1,192	4,446	119	1,884	3,755	659	3,096	533	1,351
5/17/2023	5,763	1,193	4,450	119	1,886	3,758	659	3,099	534	1,351
5/18/2023	5,784	1,197	4,469	118	1,889	3,777	661	3,116	536	1,354
DoD Change	22	3	19	-1	4	19	2	17	1	3
WoW change	27	16	12	0	17	11	8	3	7	10

Source: Crane Data

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Exhibit 9: ON RRP take-up (\$bn)

ON RRP take-up increased \$38.45bn from prior day



Source: FRBNY

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Exhibit 10: Fed reserve balances outstanding (\$bn)

Change in reserve balance from prior week was \$54.68bn



Source: Federal Reserve

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Exhibit 11: US Commercial Bank balance sheets, selected assets & liabilities (\$bn)

Bank balance sheets grew \$58b WoW on a NSA basis

		Total	Assets						Liabilities			
			Cash	UST & Agy	MBS	Repo & FF	Loans & Leases	Other	Deposits	Borrowings	Net due to related foreign offices	Other
All	5/10/2023	22888	3265	1544	2611	631	12098	2739	17101	2463	287	3036
Banks	1w Chg	58	66	-5	-13	24	-17	3	-57	11	63	42
	1m Chg	-74	-92	-6	4	15	47	-43	-268	60	26	109
	YTD Chg	-88	170	-109	-162	31	-7	-10	-845	609	17	131
Domestic	5/10/2023	19833	1939	1428	2586	291	11074	2515	15865	1489	-399	2877
Banks	1w Chg	-26	-6	-11	-12	18	-11	-4	-58	-4	4	32
	1m Chg	-113	-146	-15	5	29	59	-44	-255	37	1	103
	YTD Chg	-168	71	-119	-150	-22	26	26	-765	505	-60	152
Large	5/10/2023	13197	1450	1139	1953	250	6686	1719	10637	916	-431	2075
Banks	1w Chg	-21	-8	-11	-11	17	-10	1	-52	-8	5	33
	1m Chg	-138	-161	-16	5	29	12	-6	-197	8	0	52
	YTD Chg	-58	27	-90	-8	-14	-6	33	-472	329	-55	141
Small	5/10/2023	6636	489	290	633	41	4387	796	5228	573	32	803
Banks	1w Chg	-4	2	0	-1	1	-1	-5	-6	4	-1	-1
	1m Chg	25	15	1	0	0	47	-38	-58	30	1	52
	YTD Chg	-111	43	-29	-143	-8	33	-7	-293	177	-5	11
Foreign	5/10/2023	3055	1326	115	25	341	1024	224	1235	974	686	159
Banks	1w Chg	84	72	6	-1	6	-7	7	1	14	58	10
	1m Chg	39	54	10	-1	-14	-12	2	-13	22	25	6
	YTD Chg	81	100	10	-12	53	-34	-36	-79	104	77	-21

Source: Federal Reserve H8

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Exhibit 12: Fed balance sheet, selected assets & liabilities (\$bn, Wednesday comparison data)

Drain in ON RRP and TGA has flowed into reserves

Dates	Assets						Liabilities					
	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
5/10/2023	7,801	0		9	83	213	2,333	385	2,233	155	3,225	8,553
5/17/2023	7,771	0		9	87	208	2,334	385	2,214	68	3,280	8,507
Change from 5/3-5/10	0	0		4	7	-16	4	2	-25	-34	59	-1
Change from 5/10-5/17	-30	0		0	4	-4	1	0	-19	-86	55	-46
Change from 3/8-5/17	-177	0		4	87	208	26	18	20	-243	276	115

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	Called	Total
3/1/2023	14,450	6,550	-	(21,685)	1,500	1,317	603	(2,794)	-	(59)
3/2/2023	17,964	4,656	5,650	(17,127)	530	114	789	(6,685)	(15)	5,876
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)	(60)	7,917
3/29/2023	17,095	1,957	-	(29,865)	1,000	9,924	162	(1,881)	(30)	(1,639)
3/30/2023	15,250	4,213	4,700	(20,936)	-	3,498	129	(3,202)	(210)	3,442
3/31/2023	8,000	964	-	(32,122)	-	-	-	-	-	(23,158)
4/3/2023	9,620	2,421	-	(16,456)	-	7,642	96	(6,175)	(110)	(2,962)
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)	(10)	2,073
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)	(190)	(2,021)
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)	(120)	231
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)	(170)	(13,637)
4/24/2023	17,600	5,499	-	(23,041)	-	4,645	30	(6,005)	(434)	(1,706)
4/25/2023	15,850	6,807	11,335	(19,746)	2,550	1,253	130	(6,713)	-	11,466
4/26/2023	26,838	6,482	-	(27,442)	-	5,780	224	-	(335)	11,548
4/27/2023	19,800	6,206	7,000	(21,528)	6,480	4,140	80	(3,600)	(620)	17,958
4/28/2023	15,512	3,584	-	(44,794)	911	3,430	80	(1,424)	(130)	(22,831)
5/1/2023	18,904	2,879	-	(27,040)	11,497	1,047	148	(7,853)	-	(419)
5/2/2023	19,801	4,857	3,185	(24,907)	-	57	165	(6,105)	-	(2,946)
5/3/2023	23,273	4,378	-	(38,071)	5,913	5,208	246	(6,020)	-	(5,074)
5/4/2023	23,721	5,373	6,930	(31,128)	5,950	1,955	232	(6,989)	-	6,044
5/5/2023	18,400	2,790	-	(31,772)	1,677	55	124	(2,072)	-	(10,798)
5/8/2023	18,857	6,822	-	(31,657)	3,655	832	210	(3,275)	(15)	(4,572)
5/9/2023	20,018	4,320	7,200	(23,834)	4,505	110	322	(2,650)	(40)	9,951
5/10/2023	21,769	2,506	-	(29,880)	9,708	1,521	253	(1,417)	(80)	4,380
5/11/2023	19,532	2,132	5,050	(26,533)	1,400	80	115	(1,540)	(15)	221
5/12/2023	18,555	5,628	-	(30,524)	7,825	6,165	20	(130)	-	7,539
5/15/2023	18,014	7,593	-	(24,965)	3,000	411	138	(100)	-	4,091
5/16/2023	16,384	10,516	7,595	(29,449)	2,905	315	115	(100)	(45)	8,236
5/17/2023	15,800	6,278	-	(24,935)	10,720	143	60	(1,545)	-	6,521
5/18/2023	13,206	4,494	6,110	(19,859)	2,054	1,105	186	(1,938)	-	5,357
5/19/2023	11,776	2,766	-	(26,366)	9,824	1,380	145	(850)	(25)	(1,350)

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

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