

# US Rates Watch

## Follow the money: FHLBs, MMF, & Fed June 5 update

### Money map: FHLBs, MMF, & Fed

**Key takeaway:** banking system stress remains elevated, though the rate of increase in funding need has slowed. FHLB paid down debt last week, largely around month-end. ON RRP take-up has already begun to decline post month-end, largely in line with T-bill issuance. We expect this ON RRP drain to continue due to a large wave of bill supply.

**FHLB activity:** According to our estimates, FHLB net issuance declined \$21b over last week, with large paydowns primarily on month-end and Friday (Exhibit 1). FHLB Office of Finance data shows FHLB debt rose \$32.5b in May, in line with our own estimates of \$32.1b.

**Money market funds:** According to Crane data, MMF AUM grew \$36b on the week ending Thursday, Jun 1 (Exhibit 7), with inflows primarily into Gov't institutional funds. The approaching debt limit X-date has not led to significant MMF outflows.

**ON RRP:** take-up declined \$48bn on the week ending Friday, Jun 2 (Exhibit 9). Take-up grew leading into month-end but has since declined \$113b. ON RRP take-up has likely begun to decline despite MMF inflows and FHLB debt paydowns because of \$89b of T-bill issuance and headlines around an imminent debt limit resolution.

We expect this drain to continue due to a large wave of bill supply post debt limit resolution. For more detail, see [Bill supply surge FAQ](#) & [Bills on parade](#).

**Fed data:** Fed H.8 data for the week ending May 24<sup>th</sup> showed bank balance sheets declined \$14b, led by large domestic banks (Exhibit 11). Large banks saw deposit outflows on the liabilities side, with securities holdings declining on the asset side. The drop in securities holdings suggests that banks may have been less inclined to roll over maturing securities perhaps on the brink of debt limit volatility.

The Fed's H.4.1 data for the week ending May 31<sup>st</sup> showed borrowing from the bank term funding program continued to grow. Still, reserves declined \$45b, largely due to Fed QT leading to a \$43b decline in Fed securities. TGA was relatively flat on the week. 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*

05 June 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

Trading ideas and investment strategies discussed herein may give rise to significant risk and are not suitable for all investors. Investors should have experience in relevant markets and the financial resources to absorb any losses arising from applying these ideas or strategies.

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**Refer to important disclosures on page 7 to 9.**

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Timestamp: 05 June 2023 07:10AM 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

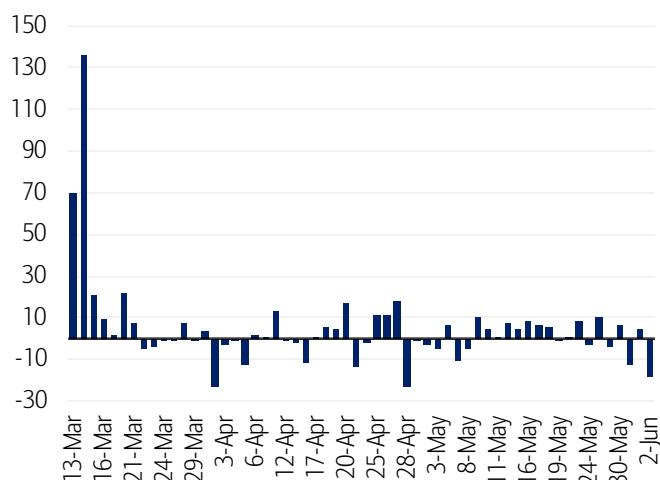
FHLBs	18-May	19-May	22-May	23-May	24-May	25-May	26-May	30-May	31-May	1-Jun	2-Jun
Total	5.36	-1.35	0.47	8.25	-3.28	10.17	-3.76	6.01	-13.06	4.38	-18.04
DN outstanding	486.84	475.02	476.20	487.22	488.63	494.83	486.39	490.50	477.41	476.83	468.08
Money Markets	18-May	19-May	22-May	23-May	24-May	25-May	26-May	30-May	31-May	1-Jun	2-Jun
ON RRP Total	2,238.27	2,276.72	2,275.31	2,256.69	2,250.71	2,197.64	2,189.68	2,200.48	2,254.86	2,160.06	2,142.10
ON RRP Change (d/d)	24.59	38.45	-1.41	-18.62	-5.98	-53.07	-7.96	10.80	54.38	-94.80	-17.95
MMF Flows	21.81	10.68	13.04	9.63	-10.89	5.64	-24.21	23.82	13.45	23.13	
MMF Inflow - RRP Change	-2.78	-27.77	14.44	28.26	-4.91	58.71	-16.25	13.02	-40.93	117.93	

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 has shifted towards debt net paydowns in the last week

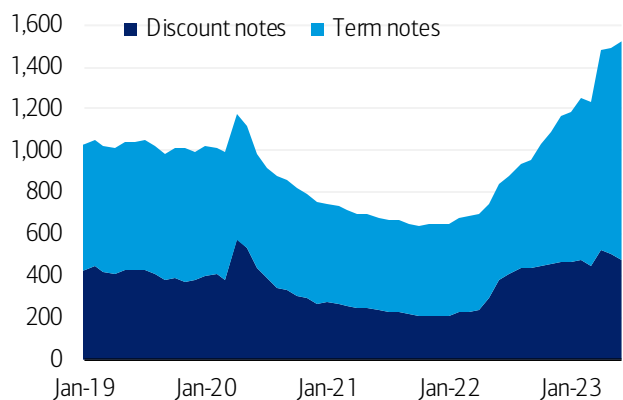


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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**Exhibit 4: FHLB debt issuance (\$bn)**

Higher FHLB debt issuance leading to more MMF investment

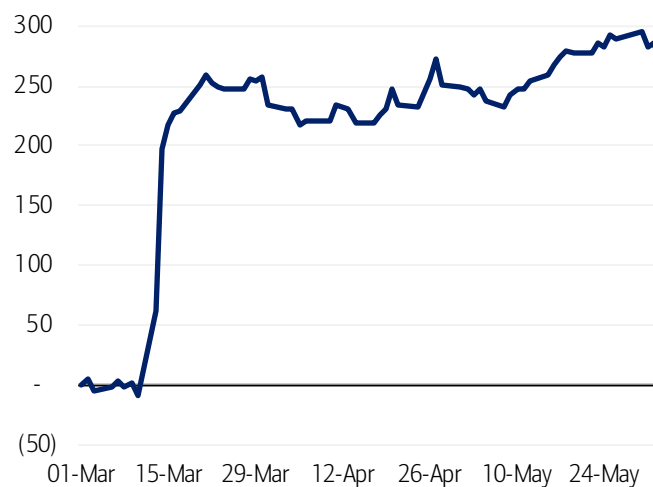


Source: BofA Global Research, FHLB Office of Finance

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

Daily FHLB cumulative debt is roughly \$269bn higher since March 1



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

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**Exhibit 5: Fed funds volumes (\$bn)**

Fed funds volumes remain elevated but down from \$136b peak



Source: FRBNY

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**Exhibit 6: MMF AUM (\$bn)**

MMFs saw \$31.74bn in flows from prior week



Source: ICI, Bloomberg

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**Exhibit 7: ICI Money Market Fund AUM (\$bn)**

MMF aum rose \$32bn from prior week, primarily into gov't institutional

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
5/24/2023	5,388	796	4,481	112	1,959	3,429	259	3,160	10	537	1,321	101
5/31/2023	5,420	797	4,510	112	1,971	3,449	257	3,182	11	540	1,329	102
WoW Change	32	1	30	1	12	20	-2	22	0	3	8	1
Change since 3/8	526	3	527	-4	144	382	-12	396	-2	15	131	-1

Source: ICI, Bloomberg

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

MMF AUM grew \$23b from prior day, mostly into gov't institutional

Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
5/25/2023	5,812	1,194	4,501	117	1,899	3,796	654	3,142	540	1,359
5/26/2023	5,788	1,190	4,481	118	1,901	3,769	649	3,121	541	1,360
5/30/2023	5,812	1,188	4,506	118	1,903	3,791	646	3,145	542	1,361
5/31/2023	5,825	1,188	4,519	118	1,906	3,801	645	3,156	543	1,364
6/1/2023	5,849	1,193	4,536	120	1,912	3,816	648	3,168	544	1,368
DoD Change	23	5	17	2	6	15	3	12	2	4
WoW change	36	-1	35	2	13	21	-5	26	4	9

Source: Crane Data

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

ON RRP take-up declined \$48bn from prior week, reversing ME inflows

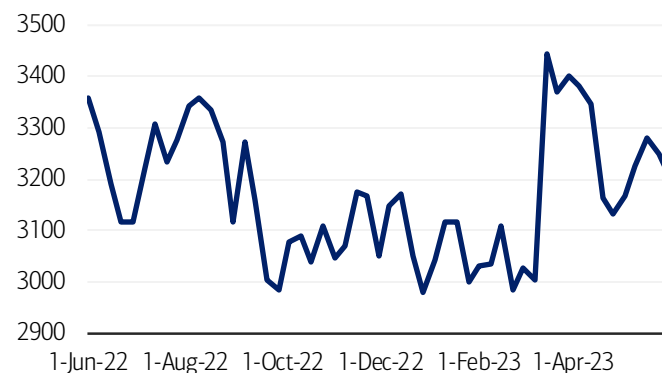


Source: FRBNY

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

Change in reserve balance from prior week was -\$45.25bn



Source: Federal Reserve

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

Domestic banks saw deposits increase but borrowings declined

		Total	Assets						Liabilities			
			Cash	UST & Agg	MBS	Repo & FF	Loans & Leases	Other	Deposits	Borrowings	Net due to related foreign offices	Other
All	5/24/2023	22896	3313	1517	2602	643	12098	2724	17101	2492	255	3048
Banks	1w Chg	-14	-7	-5	-5	10	-1	-7	-31	3	-3	17
	1m Chg	50	118	-40	-22	59	-14	-52	12	59	-41	20
	YTD Chg	-80	217	-136	-171	42	-7	-25	-844	637	-15	142
Domestic	5/24/2023	19844	2000	1407	2577	283	11080	2497	15862	1478	-379	2883
Banks	1w Chg	-21	-8	-4	-5	2	4	-10	-28	-2	2	7
	1m Chg	12	83	-43	-20	33	-4	-37	12	-24	3	21
	YTD Chg	-158	131	-140	-160	-30	33	9	-769	494	-40	158
Large	5/24/2023	13203	1524	1116	1943	244	6681	1695	10634	913	-409	2065
Banks	1w Chg	-23	2	-5	-6	2	-1	-14	-25	1	3	-1
	1m Chg	-13	78	-41	-23	32	-18	-42	0	-23	7	3
	YTD Chg	-52	102	-112	-18	-20	-12	9	-476	326	-33	131
Small	5/24/2023	6641	475	291	634	39	4399	802	5228	565	30	818
Banks	1w Chg	2	-9	1	0	1	6	4	-3	-3	0	8
	1m Chg	25	5	-2	2	1	14	4	12	-1	-4	18
	YTD Chg	-106	30	-28	-141	-10	45	-1	-294	168	-7	26
Foreign	5/24/2023	3053	1313	110	25	360	1018	227	1240	1014	634	165
Banks	1w Chg	6	1	-1	0	8	-5	4	-3	5	-6	10
	1m Chg	38	36	3	-2	26	-10	-14	0	83	-43	-1
	YTD Chg	78	86	4	-11	72	-40	-33	-75	144	25	-15

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

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	
5/24/2023	7,768	0		4	92	193	2,337	360	2,251	49	3,251	8,486	
5/31/2023	7,725	0		4	94	188	2,344	361	2,255	49	3,206	8,436	
Change from 5/24-5/31	-43	0		0	2	-5	7	1	4	-1	-45	-51	
Change from 3/8-5/31	-224	0		-1	94	188	36	-6	62	-263	202	44	

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	261	(6,020)	-	(5,059)
5/4/2023	23,721	5,373	6,930	(31,128)	5,950	1,955	233	(6,989)	-	6,045
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	368	(2,650)	(40)	9,997
5/10/2023	21,769	2,506	-	(29,880)	9,708	1,521	276	(1,417)	(80)	4,404
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	151	(100)	-	4,103
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	70	(1,545)	-	6,531
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)
5/22/2023	11,935	6,178	-	(16,931)	1,400	3,405	70	(5,570)	(20)	467
5/23/2023	13,825	7,034	7,085	(16,926)	2,845	298	276	(6,100)	(85)	8,251



**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
5/24/2023	16,049	9,590	-	(24,231)	-	287	47	(4,780)	(238)	(3,277)
5/25/2023	15,050	8,877	8,605	(26,328)	6,257	135	59	(2,478)	(3)	10,174
5/26/2023	14,857	2,792	-	(26,090)	12,890	155	70	(8,010)	(420)	(3,757)
5/30/2023	17,144	9,610	2,020	(24,663)	397	2,039	273	(811)	-	6,009
5/31/2023	11,178	5,373	-	(29,638)	-	-	30	-	-	(13,057)
6/1/2023	14,922	6,811	2,260	(24,577)	5,396	915	147	(1,475)	(15)	4,384
6/2/2023	17,653	1,818	-	(28,221)	-	305	-	(9,579)	(15)	(18,038)

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

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