

US Rates Watch

Follow the money: cash & collateral trends
Mar 12 update**Money map: funding conditions stable**

Funding conditions remain stable with minimal upward pressure around month-end settlements. We expect the \$61b in coupon settlements to be similar with only a 1bp increase in SOFR. Fed balance sheet data showed the decline in ON RRP on the week ending Mar 6 outpaced declines from QT as reserves absorbed more cash. The increase in reserves may in part reflect tax returns and typical month-end deposit inflows as declines in financial CP and FHLB debt do not reflect higher demand for bank borrowing.

Cash: ON RRP decline outpaced QT as reserves rose

Fed balance sheet data (Exhibit 1) for the week ending Mar 6, showed Fed assets declined \$29b, including \$30b in securities holdings from QT and a \$1b increase in the BTFP. We will get the final level of the BTFP with Thursday's data release as it has now closed to new loans (see: [BTFP final days: cash tracking](#)). On the Fed's liability side, reserves increased \$80b, implying banks drew cash from the Fed's ON RRP facility, likely through higher borrowing or issuing large time deposits \$14b, alongside a \$43b decline in TGA (Exhibit 2). ON RRP declined \$113b on the week ending Mar 6, with most of the drain coming after month-end (Exhibit 3). Month-end settlements, which drove upward pressure in repo, drove declines in ON RRP take-up on Feb month-end as MMFs likely shifted their ON RRP allocation into higher rate alternatives.

Cash: gov't funds attracted inflows

Over the week ending Mar 8, MMF AUM increased \$14bn as gov't funds attracted inflows (Exhibit 4). MMF inflows were split evenly between \$7b into inst'l funds and \$7b into retail funds despite prime fund outflows. We continue to expect MMF inflows to continue as long as front-end rates remain elevated and the curve is inverted (Exhibit 6).

Cash: Domestic banks saw strong deposit inflows

Bank balance sheet data, which is lagged an additional week compared to Fed balance sheet data, shows banking system assets grew \$41b on the week ending Feb 28 (Exhibit 7). The increase was driven by bank deposit inflows, likely from primarily retail deposits. Domestic banks kept a good portion of the deposit inflows in cash but also increased securities holdings and loans. Foreign banks conversely saw a reduction in total assets which drained primarily out of cash holdings. The \$22b increase in bank cash holdings was consistent with an \$18b increase in reserves in the Fed's H41 data the prior week.

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BTFP: bank term funding program
ME: month-end
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
PD: Primary Dealer
UST: US Treasury
FRN: Floating rate note
FF: Fed funds
YE: Year-end
AGY: Agency debt

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Timestamp: 12 March 2024 07:00AM EDT

Cash bottom line: declines in the ON RRP outpaced QT as reserves drew cash, potentially in part reflecting tax refunds which reflected \$22b MTD as of Mar 6. BTFP closed to new loans this week but we expect most loans will not mature near-term. MMFs saw inflows split between inst'l and retail, primarily into gov't funds. Large domestic banks saw strong deposit inflows over the prior week which also reflected in an increase in reserve balances.

Collateral: mid-month UST settlements Friday

UST issuance totaled \$371b in Feb, \$231b from bills. Due to Treasury's forecast of \$300b-\$350b in bill issuance over Feb and Mar, we expect March supply in the range of \$69b-\$119b. We expect \$61b in coupon settlements on Friday to only modest upward pressure in repo and a drop in ON RRP take-up, consistent with prior mid-month settlements.

FHLB debt declined \$11b last week with large paydowns on Friday. The large paydowns may increase as 1y loans extended following the failure of banks last March are now coming due. Trends in FHLB debt appear to put to rest concerns that the end of the BTFP program would drive a near-term increase in bank borrowing from FHLBs.

CP issuance: Data from the Federal Reserve shows that on the week ending Mar 6 CP outstanding declined \$11b, with a \$12b decline in financial CP and a \$1b increase in non-financial CP (Exhibit 11). This continues a \$13.5b decline over the prior week, also from financial CP. These trends are likely due to typical month-end dynamics.

Collateral bottom line: Coupon and bill settlements this week will likely drive some modest upward pressure in SOFR, consistent with prior mid-month settlements. Funding markets still appear flush with cash and therefore we expect the upward pressure to be limited. FHLB debt outstanding declined significantly on Friday with large paydowns, potentially from maturing advances that were borrowed around the failures of banks 1y prior. We do not expect a large increase in FHLB issuance despite the expiration of the BTFP. Stable funding conditions continues to pose risks to a later Fed QT slowdown.

Funding: lower dealer UST holdings

Dealer holdings, which are one-week lagged, show a \$50b decline in Treasury holdings on the week ending Feb 28 (Exhibit 12), with a \$31b decline in bills compounded by a \$15b decline in coupons and \$3b decline in FRN holdings. Dealer holdings are now lower YTD despite \$572b in net issuance. The decline in dealer holdings may be contributing to the stable repo rates as dealers have less USTs to finance in repo.

Repo volumes: SOFR volumes declined \$76b from the prior week as of March 8 as repo volumes have declined following a normalization after the jump on month-end (Exhibit 15). SOFR printed 1bp higher on month-end at 5.32% after increasing to 5.31% on Feb 23. SOFR is still printing 1bp higher and we expect we could see SOFR move back up with mid-month settlements on Friday. Sponsored volumes are \$13m lower on the week ending March 8, due to declines in bilateral repo volumes (Exhibit 16).

Funding bottom line: dealer holdings declined significantly on the week ending Feb 28, primarily due to lower bills. Dealer holdings are now lower YTD, which may be contributing to the softness in funding rates. Repo volumes have normalized following month-end which drove a 1bp increase in SOFR but has since come back down to 5.31%.

Key takeaway: Funding conditions remain stable with only moderate upward pressure on month-end. Fed balance sheet data showed ON RRP outpaced declines in QT as reserves absorbed more cash. The shift into reserves may reflect banks continuing to build cash and maintain their liquidity buffers, though we see no upward pressure in funding and financial CP issuance has declined. The inflows instead could be reflective of tax refunds which contributed to the decline in the TGA. Dealer balance sheet holdings showed a significant reduction in UST holdings on the week ending Feb 28, and therefore not reflective of month-end settlements. The decline in dealer holdings may

also be a contributing factor to the easier funding conditions. We expect to see only modest upward pressure in repo at mid-month with \$61b in coupon settlements but expect ON RRP to decline, consistent with prior month-ends and declines in gov't MMF AUM typically seen on Fridays.

Exhibit 1: Fed balance sheet, selected assets & liabilities (\$bn, Wednesday comparison data)

ON RRP take-up declined faster than the pace of QT as reserves absorbed more cash

Dates	Assets							Liabilities							Total
	Securities	Repo	Discount Window	BTFP	FX Swaps	Other		Currency	Foreign RRP	ON RRP	TGA	Reserves	Other		
12/27/2023	7,225	0		2	136	1	399	2,345	347	819	713	3,434	106		7,764
2/28/2024	7,067	0		2	163	0	385	2,333	339	570	768	3,541	68		7,618
3/6/2024	7,037	0		2	164	0	386	2,339	337	457	761	3,621	76		7,589
WoW Change	-30	0		0	1	0	0	6	-2	-113	-7	80	8		-29
YTD Change	-187	0		-1	28	-1	-13	-6	-10	-362	47	186	-30		-174

Source: BofA Global Research, Federal Reserve

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Exhibit 2: Fed reserve balances outstanding (\$bn)

Change in reserve balance from prior week was \$79.7bn as of Mar 6



Source: Federal Reserve

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Exhibit 3: ON RRP take-up (\$bn)

ON RRP take-up increased \$8.05bn from prior week as of Mar 8



Source: FRBNY

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Exhibit 4: Daily Crane MMF AUM (\$bn)

MMF AUM increased \$14b WoW as of Mar 8, with inflows into gov't MMFs

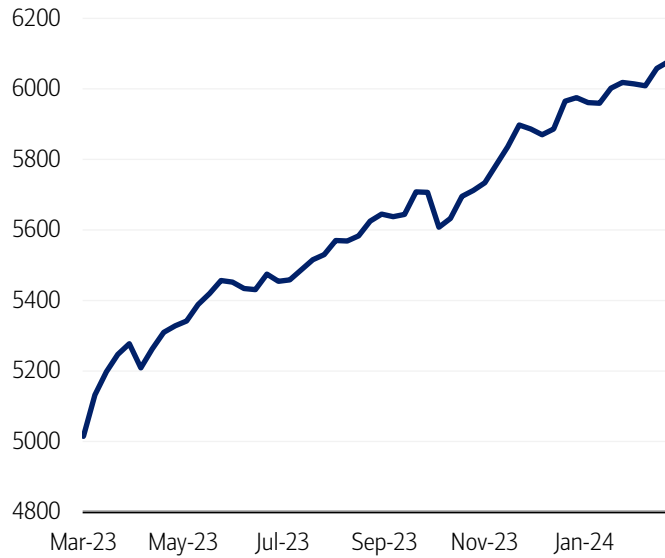
Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
12/29/2023	6,300	1,308	4,862	131	2,232	3,937	616	3,322	692	1,540
3/1/2024	6,468	1,393	4,948	127	2,318	4,023	655	3,368	738	1,580
3/8/2024	6,482	1,390	4,964	127	2,324	4,030	648	3,382	742	1,582
WoW change	14	-3	16	0	7	7	-7	14	5	2
YTD change	181	83	103	-4	93	93	32	61	51	42

Source: Crane Data

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Exhibit 5: MMF AUM (\$bn)

MMFs saw \$18.65bn in flows from prior week as of Mar 6

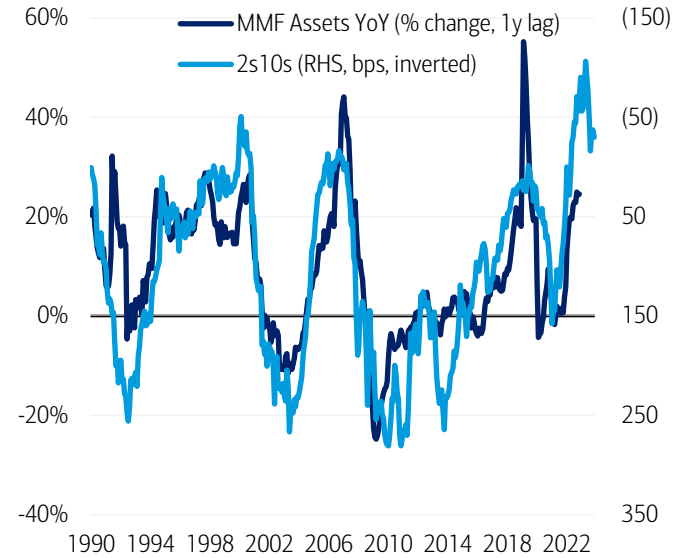


Source: ICI, Bloomberg

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Exhibit 6: MMF assets and 2s10s curve

MMF assets are typically negatively correlated to the yield curve with a lag



Source: BofA Global Research, Federal Reserve, Haver

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Exhibit 7: US Commercial Bank balance sheets, selected assets & liabilities (\$bn)

Bank assets grew primarily off of deposit inflows into large domestic banks which were allocated to cash, securities holdings, and lending activity

		Total	Assets						Liabilities					
			Cash	UST & Agy	MBS	Repo & FF	Loans & Leases	Other	Deposits	Large	Small	Borrowings	Net due to related foreign offices	Other
All Banks	2/28/2024	23330	3577	1579	2545	619	12317	2693	17492	2386	15106	2383	362	3093
	WoW Chg	41	22	21	5	-30	28	-4	86	11	75	-56	-12	23
	YTD Chg	-46	90	-17	32	-73	-54	-23	-120	123	-244	60	-13	17640
Domestic Banks	2/28/2024	20037	2141	1468	2514	238	11222	2454	16134	1553	14582	1373	-385	2914
	WoW Chg	49	35	22	4	-24	23	-11	61	6	55	-11	-22	22
	YTD Chg	-261	-131	-16	31	-70	-55	-20	-215	78	-293	31	-113	16386
Large Banks	2/28/2024	13418	1657	1175	1932	206	6746	1701	10798	854	9945	962	-423	2081
	WoW Chg	25	22	22	4	-24	13	-12	35	2	33	-5	-24	20
	YTD Chg	-264	-138	-12	23	-72	-59	-7	-203	43	-246	39	-123	11024
Small Banks	2/28/2024	6619	485	292	582	31	4477	753	5336	699	4637	411	38	833
	WoW Chg	24	13	-1	0	0	10	2	26	4	22	-6	2	2
	YTD Chg	3	7	-4	7	2	4	-13	-12	35	-47	-9	10	5362
Foreign Banks	2/28/2024	3292	1435	111	31	382	1095	239	1357	833	524	1010	747	178
	WoW Chg	-8	-14	-1	1	-6	5	6	25	5	20	-45	10	1
	YTD Chg	215	221	-1	2	-3	1	-4	94	45	49	29	100	1254

Source: Federal Reserve H8

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Exhibit 8: Treasury bill and coupon issuance (\$000s)

Treasury issuance has increased \$31b in Mar MTD, from bill issuance

	Net total	Net bills	Net coupons	Gross new issue	Gross bill issue	Gross coupon issue	Gross maturing	Gross bill maturing	Gross coupon maturing
MTD	31,008	31,008	-	474,000	474,000	-	442,992	442,992	-
YTD	571,551	372,174	199,377	5,126,000	4,452,000	674,000	4,554,449	4,079,826	474,623
FYTD	1,377,180	810,605	566,575	12,179,000	10,563,000	1,616,000	10,801,820	9,752,395	1,049,425

Source: BofA Global Research, Haver Analytics

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Exhibit 9: Cumulative growth in FHLB debt since Mar 1 '23(\$bn)

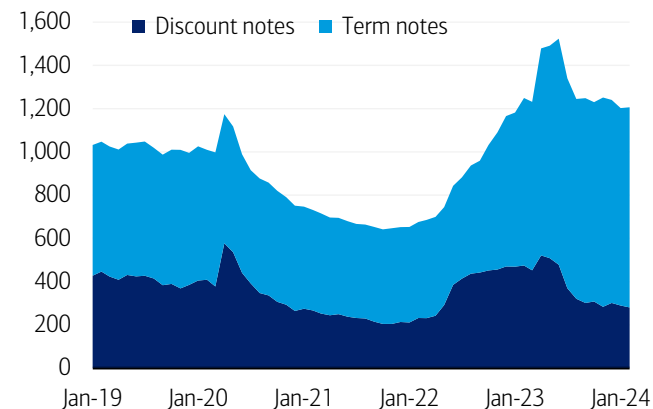
Daily FHLB cumulative debt is roughly \$47.8bn lower since Mar 1 '23



Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance
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Exhibit 10: FHLB debt issuance (\$bn)

FHLB debt increased \$8.8b in Feb

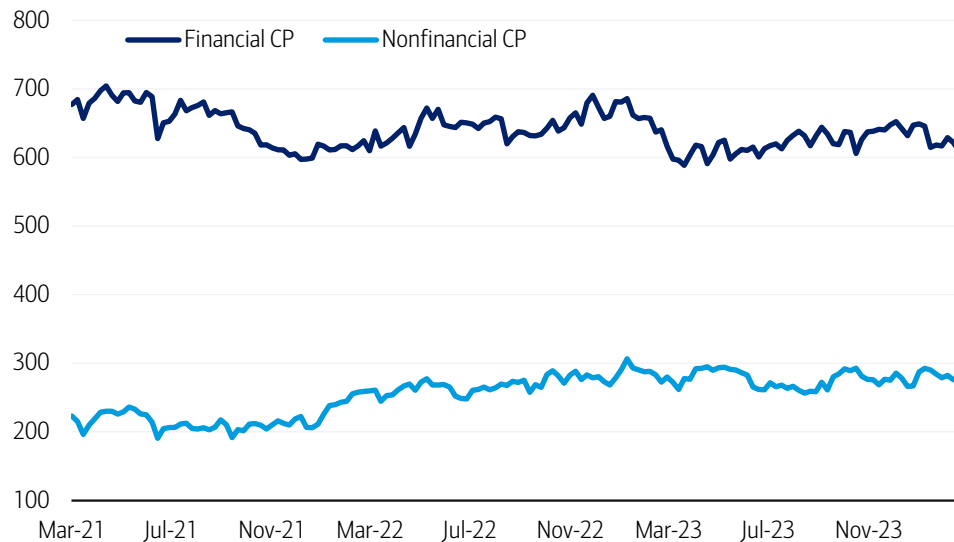


Source: BofA Global Research, FHLB Office of Finance

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Exhibit 11: Commercial paper (\$bn)

CP outstanding declined \$11 on the week ending Mar 6



Source: Bloomberg

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Exhibit 12: Primary dealer holdings (\$mn)

PD holdings of UST declined \$50b WoW driven by lower T-bill, coupon, and FRN holdings. Data as of Feb 28 due to lag

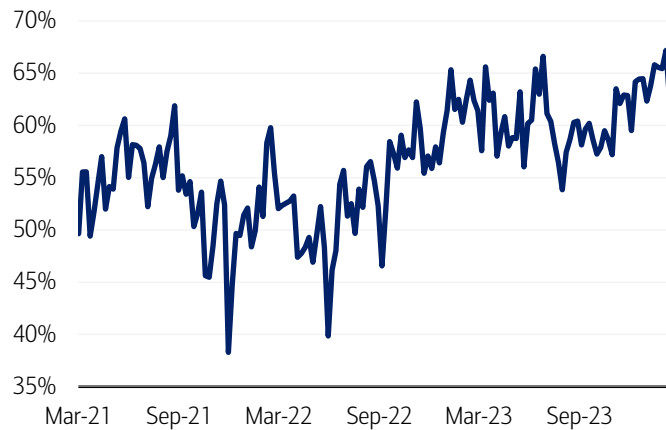
	Total	US Treasuries					Agency ex MBS	MBS	Corporates	Commercial Paper	State & Munis	ABS	Variable Rate Notes
		Bills	Coupons	FRNs	TIPS								
2/28/2024	401,771	249,227	61,896	159,841	7,155	20,335	14,369	92,201	22,444	8,557	12,467	7,308	3,755
Chg WoW	-43,308	-49,766	-31,421	-14,496	-3,362	-487	-257	-4,194	7,350	64	2,835	-400	1,124
Chg YTD	2,296	-7,162	-3,431	-729	-5,792	2,790	2,352	-5,029	11,080	4,566	83	-191	1,163
Chg since DL	17,060	6,039	-25,357	31,082	1,760	-1,446	-2,158	11,356	4,302	-1,013	-2,410	189	-258

Source: BofA Global Research, Bloomberg

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Exhibit 13: PD UST holdings as a % of total holdings

Latest level 62% as of Feb 18

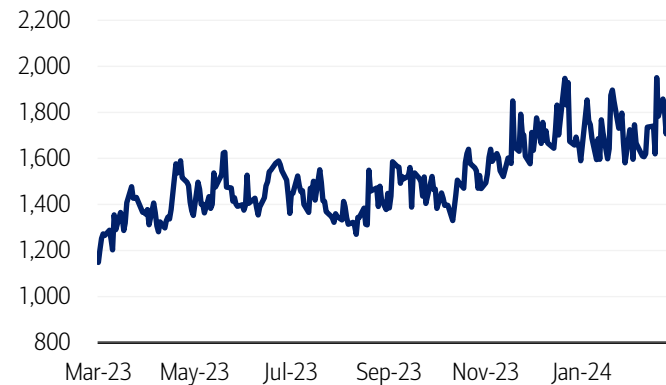


Source: BofA Global Research, Bloomberg

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Exhibit 15: SOFR volumes (\$bn)

SOFR volumes decreased -\$76bn from prior week as of Mar 8

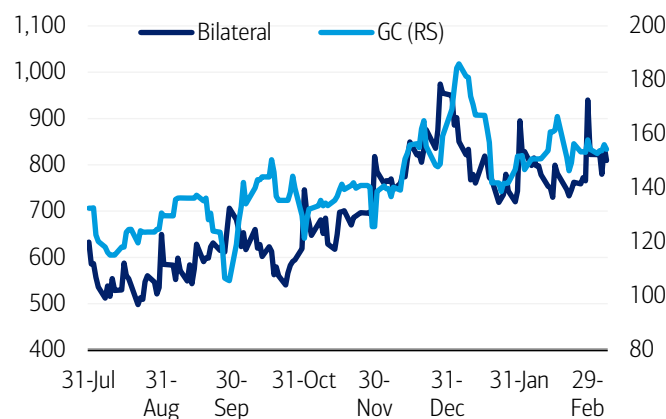


Source: FRBNY

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Exhibit 17: Sponsored repo volumes by transaction type (\$bn)

Sponsored bilateral declined \$13b WoW, while GC was little changed



Source: OFR

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Exhibit 14: PD UST holdings by security type (\$mn)

PD holdings of bills are still higher than avg but declining

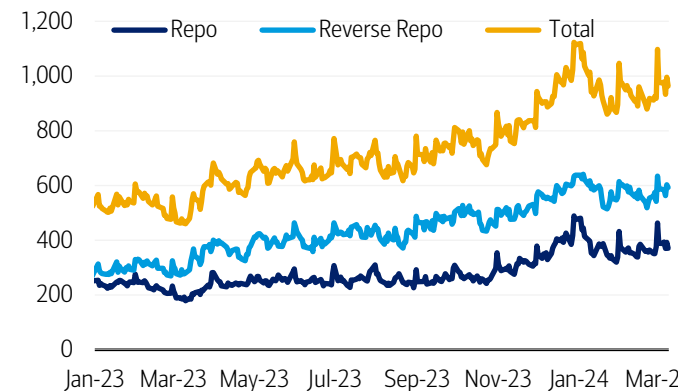
	Bills	Coupons	FRNs	TIPS	Total
1/31/2024	82,948	174,499	6,917	20,011	284,375
2/28/2024	61,896	159,841	7,155	20,335	249,227
MoM Change	(21,052)	(14,658)	238	324	(35,148)
Level Z-score	0.73	0.73	(0.17)	1.83	1.08

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Exhibit 16: Sponsored Repo Volumes (\$bn)

Sponsored repo volumes declined \$13b from prior week as of Mar 8



Source: OFR

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Appendix

Exhibit 18: 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
2/1/2024	18,006	2,492	5,795	(9,767)	5,258	165	383	(5,101)	(176)	17,055
2/2/2024	19,050	7,642	-	(23,571)	6,915	155	32	(4,530)	(25)	5,668
2/5/2024	16,930	2,349	-	(20,492)	11,195	268	209	(3,691)	(3)	6,765
2/6/2024	16,595	1,846	3,405	(21,805)	875	1,655	175	(611)	-	2,134
2/7/2024	14,355	1,785	-	(20,135)	500	335	1,055	(435)	(280)	(2,819)
2/8/2024	16,903	2,136	5,650	(16,978)	1,100	635	95	(620)	(965)	7,956
2/9/2024	16,299	3,438	-	(30,668)	4,640	1,490	61	(1,360)	(1,077)	(7,177)
2/12/2024	15,182	1,884	-	(18,066)	13,745	335	514	(690)	(6,205)	6,699
2/13/2024	17,965	10,238	3,305	(16,975)	3,150	315	45	(2,671)	(340)	15,032
2/14/2024	12,855	4,163	-	(22,223)	4,475	406	228	(1,749)	(440)	(2,285)
2/15/2024	13,446	2,903	2,930	(18,107)	6,640	1,800	179	(1,641)	(426)	7,725
2/16/2024	11,448	7,507	-	(20,190)	12,250	405	139	(5,888)	(120)	5,550
2/20/2024	11,900	2,144	3,880	(15,343)	5,515	1,305	2,609	(7,115)	(1,560)	3,335
2/21/2024	10,745	3,586	-	(19,110)	2,650	555	75	(2,875)	(305)	(4,680)
2/22/2024	11,850	5,000	4,550	(12,294)	750	275	550	(2,570)	(3,360)	4,750
2/23/2024	10,600	5,159	-	(17,012)	3,160	582	220	(6,270)	(85)	(3,646)
2/26/2024	12,222	1,438	-	(12,479)	650	311	2,142	(4,662)	(7,900)	(8,277)
2/27/2024	12,051	1,134	2,050	(14,838)	1,047	151	3,620	(5,662)	(275)	(723)
2/28/2024	11,114	944	-	(16,820)	3,300	685	1,350	(6,453)	(720)	(6,599)
2/29/2024	8,350	3,011	1,210	(14,001)	-	-	-	(10)	-	(1,440)
3/1/2024	14,165	3,829	-	(19,251)	-	115	201	(4,817)	(13)	(5,773)
3/4/2024	14,532	2,712	-	(17,287)	3,250	1,159	155	(2,000)	(162)	2,360
3/5/2024	16,371	2,335	1,435	(16,403)	700	515	60	(250)	(35)	4,728
3/6/2024	21,717	2,776	-	(21,712)	1,750	475	245	(3,331)	(120)	1,801
3/7/2024	18,321	2,522	2,775	(19,835)	551	375	65	(250)	(285)	4,239
3/8/2024	17,192	2,392	-	(28,820)	500	156	131	(12,734)	(2,880)	(24,062)

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

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