

US Rates Watch

Follow the money: cash & collateral trends Feb 13 update

Money map: bank funding stress still limited

We continue to see limited signs of funding stress around US commercial banks (see: [USD funding: limited bank stress, so far](#)). Domestic banks saw strong deposit inflows on Jan month-end & a pullback in borrowing, in part likely from a reduction in financial CP and FHLB advances. Since month-end however FHLB net issuance has increased likely due to banks precautionary funding. Upward pressure in repo has been relatively limited despite continued QT and increases in issuance. Thursday's UST settlements may drive some upward pressure in SOFR but is expected to be limited.

Cash: reserve balances reversed prior 2 week declines

Fed balance sheet data (Exhibit 1) for the week ending Feb 7, showed security holdings were unchanged but there was a small decline in borrowing from the Fed's discount window, reversing the prior week's increase. On the Fed's liability side, foreign and domestic RRP declined, totaling \$87b, in addition to a \$44b decline in TGA. This almost fully reverses the trend of bank reserve declines over the prior 2 weeks with an \$144b increase (Exhibit 2, Exhibit 3). The downward trend in RRP take-up has recently slowed from a pace of almost \$50b per week since the debt limit resolution to \$25b per week YTD, ex year-end. RRP decline will likely continue as bill supply increases over February and March but may prove slower if MMF shorter WAM to fade Fed cuts.

Cash: prime funds continue to see inflows

Over the week ending Feb 9 MMF AUM declined \$9bn as gov't fund outflows outpaced prime fund inflows (Exhibit 4). Most of the outflows were out of institutional MMFs while retail AUM was flat. We expect ongoing but slowing MMF inflows with an inverted yield curve (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 declined \$37b on the week ending Jan 31. The decline was driven by foreign banks pulling back from borrowing at month-end which drained primarily out of their cash holdings (Exhibit 7). Recall, this coincided with a \$78b decline in the Fed's reserve balances which we reported last week. Domestic banks also reduced borrowings but saw greater deposit inflows which drove the increase in their cash holdings and lending activity. The large drop in borrowing by banks coincided with a significant reduction in financial CP (-\$31b), likely due to typical month-end dynamics.

13 February 2024

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Abbreviations:

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: 13 February 2024 10:08AM EST

Cash bottom line: Reserve balances reversed most of the prior two weeks of outflows. Banks saw \$147b in deposit inflows over the prior week, reversing most of the prior week's \$169b in deposit outflows. MMF AUM continues to trend higher for prime MMFs while gov't funds flows remain more volatile. We see few signs of bank funding concern.

Collateral: FHLB issuance trending higher

UST issuance has totaled \$81b MTD due to bill issuance. Net new bill supply is expected to total \$300-\$350b over February and March. Despite higher issuance, funding pressure has been relatively benign. Mid-month coupon settlements on Thursday will be a test for funding sensitivity to increased collateral.

FHLB debt has increased \$37b MTD, according to our estimates, implying banks continue to borrow advances from FHLB despite discouragement by the FHLB regulator, FHFA (see [FHFA's bark on FHLBs worse than its bite](#)). Recent concerns around US commercial banks may be driving the higher net issuance, potentially due to precautionary funding in case of deposit outflows. Increased advance demand is consistent with a drop in a temporary drop in fed funds volume at Jan month end. Take-up in Fed's emergency facilities is little changed over the last few weeks, however.

CP issuance: Data from the Federal Reserve shows that on the week ending Feb 7 CP outstanding declined \$2.7b, with a \$6.2b decline in non-financial CP partially offset by a \$3.5b increase in financial CP (Exhibit 11). Bank CP outstanding has not seen significant increases despite headlines around US commercial banks and higher FHLB issuance.

Collateral bottom line: Coupon and bill settlements on Thursday will likely drive some upward pressure in repo & is test for funding sensitivity. FHLB net issuance has been trending higher, likely due to banks precautionary funding from concerns around select US commercial banks. FHLBs may remain the preferred source of funding despite Fed and FHFA efforts to discourage using FHLB advances for emergency funding, especially with recent changes to the rate on Fed Bank Term Funding Program pricing.

Funding: higher dealer UST holdings on month-end

Dealer holdings, which are 1-week lagged, show a \$12b increase in Treasury holdings on the week ending Jan 31 (Exhibit 12), with a \$22b increase in bills but a \$2.5b decline in coupon holdings and \$8.4b decline in FRNs, despite month-end settlements. Higher dealer UST holdings likely contributed to upward pressure in SOFR, which printed 1bp higher on month-end.

Repo volumes: SOFR volumes peaked the day after month-end and have since declined nearly \$175b (Exhibit 15). The month-end overhang which typically sees elevated SOFR prints faded by Feb 5 with SOFR consistently printing now at 5.31%. The increase in sponsored cash on month-end likely helped to cap the upward pressure in SOFR. Sponsored volumes increased \$152b on month-end but have since declined \$118b (Exhibit 16).

Funding bottom line: month-end saw limited upward pressure in repo despite higher dealer holdings and an upside surprise in bill supply issuance over the month. Repo has settled back to 5.31%, though we may see some upward pressure with coupon and bill settlements this Thursday. Significant bill Issuance over the next two months is likely to continue driving upward pressure in funding and further outflows out of ON RRP.

Key takeaway: We continue to observe limited signs of broader funding stress around US commercial bank headlines. Domestic banks saw strong deposit inflows on January month-end and a pullback in borrowing, in part likely from a reduction in financial CP and FHLB advances. Since month-end however FHLB net issuance has seen a considerable increase, likely due to banks precautionary funding. Upward pressure in repo has been relatively limited despite continued declines in liquidity due to QT and increases in collateral issuance. Thursday's UST settlements may be a test of collateral sensitivity in SOFR but is expected to be limited.

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

Reserves reversed trend of WoW declines with \$144b in inflows offset by a decline in RRP and TGA

Assets							Liabilities						
Dates	Securities	Repo	Discount Window	BTFP	FX Swaps	Other	Currency	Foreign RRP	ON RRP	TGA	Reserves	Other	Total
12/27/2023	7,225	0	2	136	1	399	2,345	347	819	713	3,434	106	7,764
1/31/2024	7,112	0	3	165	0	399	2,327	362	615	865	3,412	98	7,680
2/7/2024	7,112	0	2	165	0	402	2,327	337	553	822	3,556	87	7,682
WoW Change	0	0	-1	0	0	3	0	-25	-62	-44	144	-11	2
YTD Change	-113	0	0	29	-1	3	-17	-10	-266	109	122	-19	-81

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 +\$144.02bn as of Feb 7



Source: Federal Reserve

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

ON RRP take-up increased \$29.28bn from prior week as of Feb 12



Source: FRBNY

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

MMF AUM declined \$9b WoW as of Feb 9, with inflows into prime offset by declines in gov't and muni MMFs

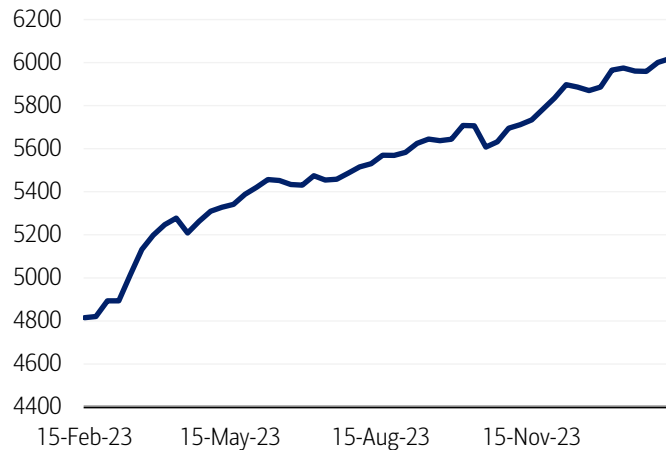
Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
12/29/2023	6,300	1,308	4,862	131	2,232	3,937	616	3,322	692	1,540
2/2/2024	6,410	1,362	4,919	128	2,294	3,987	643	3,344	720	1,575
2/9/2024	6,401	1,370	4,904	128	2,295	3,979	646	3,333	724	1,571
WoW change	-9	7	-15	-1	0	-8	3	-11	4	-4
YTD change	101	62	42	-3	63	41	30	11	32	31

Source: Crane Data

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Exhibit 5: MMF AUM (\$bn)

MMFs saw \$16.7bn in flows from prior week

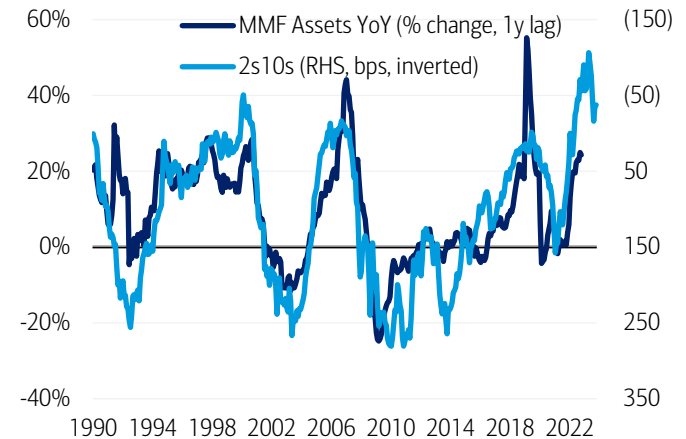


Source: ICI, Bloomberg

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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)

Domestic bank assets grew due to deposit inflows which grew cash 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	1/31/2024	23220	3476	1570	2544	610	12330	2691		17489	2361	15128	2351	342	3038
Banks	WoW Chg	-37	-52	-8	4	-22	55	-14		147	18	129	-116	-41	-27
	YTD Chg	613	156	-174	-367	24	1087	-113		-468	893	-1360	686	216	18135
Domestic	1/31/2024	20092	2172	1443	2516	248	11235	2478		16169	1531	14638	1395	-351	2879
Banks	WoW Chg	80	48	-11	4	-6	36	9		132	10	122	-13	-31	-8
	YTD Chg	371	117	-195	-360	-25	912	-80		-486	860	-1346	705	-15	16821
Large	1/31/2024	13466	1697	1146	1934	218	6753	1718		10840	843	9998	962	-389	2053
Banks	WoW Chg	55	34	-11	5	-7	27	7		104	7	97	-12	-33	-4
	YTD Chg	41	172	-187	-156	-5	306	-89		-503	504	-1007	507	-20	11399
Small	1/31/2024	6626	476	296	582	31	4482	760		5329	688	4640	433	38	826
Banks	WoW Chg	25	14	0	-1	1	9	2		28	3	25	-1	2	-4
	YTD Chg	330	-55	-7	-203	-19	606	9		17	356	-339	198	5	5422
Foreign	1/31/2024	3128	1304	127	27	362	1095	213		1319	829	490	956	693	159
Banks	WoW Chg	-117	-100	3	0	-15	19	-23		15	8	8	-103	-10	-19
	YTD Chg	242	39	21	-7	49	175	-34		18	33	-14	-19	231	1313

Source: Federal Reserve H8

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

Treasury issuance has increased \$81b in Feb MTD, due to bill issuance, but expect \$16b in net coupon settlements and \$22b in net bill settlements on Thursday

	Net total	Net bills	Net coupons	Gross new issue	Gross bill issue	Gross coupon issue	Gross maturing	Gross bill maturing	Gross coupon maturing
MTD	80,992	80,992	-	703,000	703,000	-	622,008	622,008	-
YTD	250,938	191,104	59,834	2,841,000	2,510,000	331,000	2,590,062	2,318,896	271,166
FYTD	1,056,567	629,535	427,032	9,894,000	8,621,000	1,273,000	8,837,433	7,991,465	845,968

Source: BofA Global Research, Haver Analytics

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Exhibit 9: Cumulative growth in FHLB debt since March 1 (\$bn)

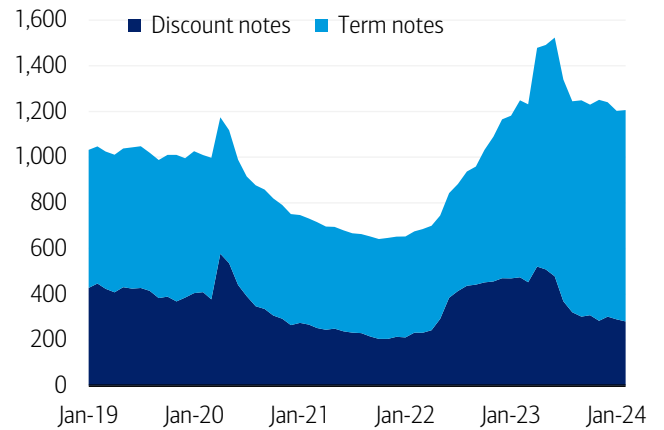
Daily FHLB cumulative debt is roughly \$47bn lower since March 1 2023



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 issuance grew \$4b on net in January

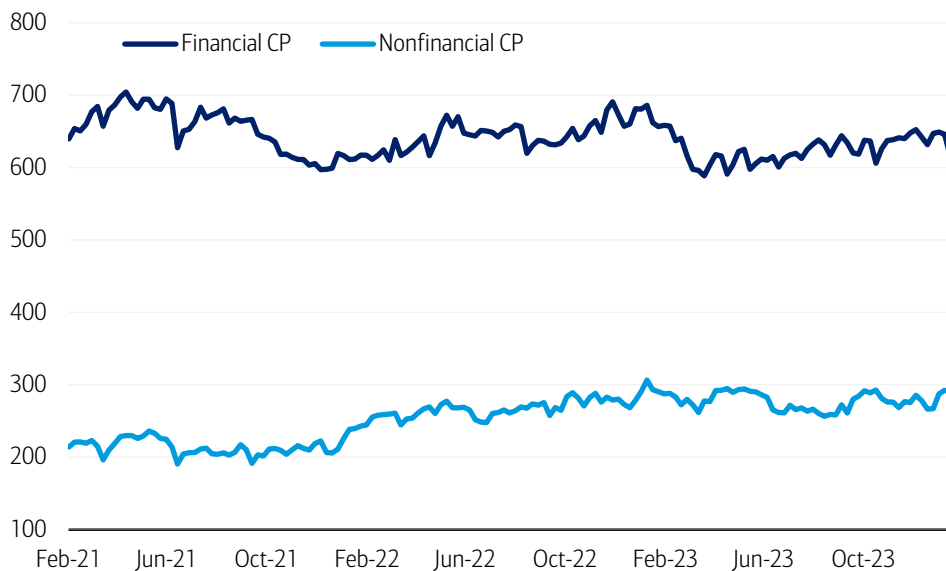


Source: BofA Global Research, FHLB Office of Finance

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Exhibit 11: Commercial paper (\$bn)

CP outstanding declined \$6.2b last week from non-fin CP but was partially offset by an increase of \$3.5b in financial CP



Source: Bloomberg

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Exhibit 12: Primary dealer holdings (\$mn)

PD holdings of UST grew \$12b WoW driven by increases in T-bills but declined for coupons and FRNs. Data as of Jan 31 due to lag

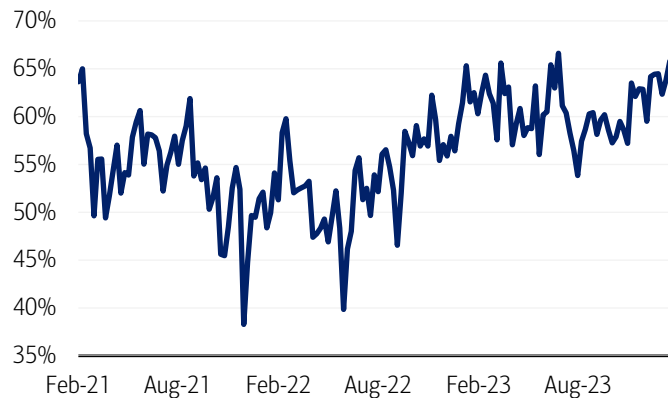
	Total	US Treasuries					Agency ex MBS	MBS	Corporates	Commercial Paper	State & Munis	ABS	Variable Rate Notes
		Bills	Coupons	FRNs	TIPS								
1/31/2024	432,140	284,375	82,948	174,499	6,917	20,011	13,604	98,758	16,395	6,094	9,603	7,365	2,040
Chg WoW	5,871	12,405	21,905	-2,464	-8,370	1,334	-1,329	2,052	153	-1,007	-4,169	-347	-2,894
Chg MoM	40,658	32,137	20,955	13,788	-5,725	3,119	2,658	782	2,728	-205	819	105	1,429
Chg since DL	47,429	41,187	-4,305	45,740	1,522	-1,770	-2,923	17,913	-1,747	-3,476	-5,274	246	-1,973

Source: BofA Global Research, Bloomberg

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

Latest level 66% as of Jan 31

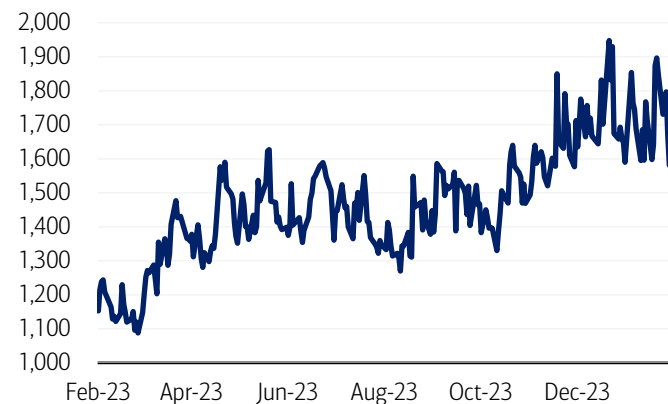


Source: BofA Global Research, Bloomberg

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Exhibit 15: SOFR volumes (\$bn)

SOFR volumes declined \$268bn from prior week as of Feb 9

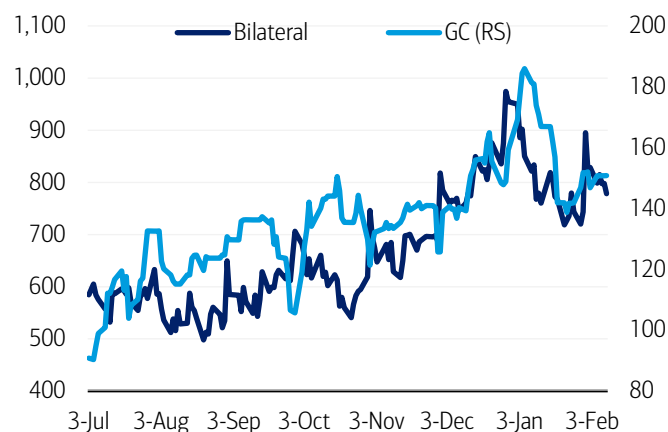


Source: FRBNY

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

Sponsored bilateral declined \$50b WoW, while GC grew \$4b



Source: OFR

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

PD holdings of bills are growing

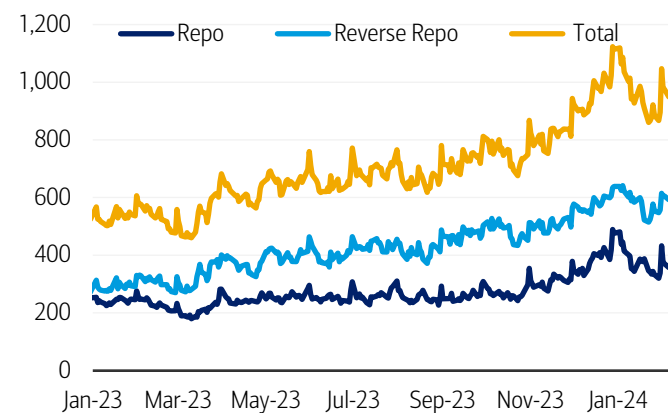
	Bills	Coupons	FRNs	TIPS	Total
1/3/2024	61,993	160,711	12,642	16,892	252,238
1/31/2024	82,948	174,499	6,917	20,011	284,375
MoM Change	20,955	13,788	(5,725)	3,119	32,137
Level Z-score	1.59	1.09	(0.23)	1.83	1.76

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Exhibit 16: Sponsored Repo Volumes (\$bn)

Sponsored repo volumes have declined \$46b from prior week as of Feb 9



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
1/2/2024	24,679	4,493	1,875	(14,254)	1,250	82	45	(115)	(35)	18,020
1/3/2024	24,353	2,899	-	(29,469)	3,478	1,065	23	(1,435)	(1,204)	(290)
1/4/2024	21,288	2,972	3,100	(26,103)	800	1,080	13	(250)	(50)	2,850
1/5/2024	17,280	1,749	-	(28,925)	3,175	170	180	(4,065)	(540)	(10,976)
1/8/2024	18,069	1,999	-	(20,944)	2,600	345	2,623	(650)	(130)	3,913
1/9/2024	21,850	2,759	4,375	(19,553)	2,265	180	370	(1,760)	-	10,486
1/10/2024	24,567	1,954	-	(26,616)	2,250	1,630	799	(1,408)	(320)	2,857
1/11/2024	14,950	1,621	2,800	(21,683)	2,125	1,925	255	-	(100)	1,893
1/12/2024	15,917	3,124	-	(27,572)	6,780	435	105	(2,810)	(1,360)	(5,381)
1/16/2024	18,920	1,939	3,340	(18,564)	7,425	257	250	(802)	(615)	12,151
1/17/2024	22,522	4,928	-	(26,733)	500	1,230	313	(4,125)	(70)	(1,435)
1/18/2024	19,668	4,011	5,355	(24,179)	750	1,558	808	(1,670)	(150)	6,151
1/19/2024	16,765	5,439	-	(25,882)	9,450	472	90	(3,092)	(115)	3,127
1/22/2024	14,050	4,693	-	(20,401)	4,500	1,295	506	(920)	(775)	2,948
1/23/2024	14,405	5,032	1,425	(15,686)	3,450	330	-	(1,385)	(410)	7,162
1/24/2024	15,622	2,994	-	(24,186)	2,900	373	131	(5,155)	(405)	(7,727)
1/25/2024	16,700	3,664	2,360	(18,420)	200	1,270	145	(3,725)	(240)	1,953
1/26/2024	19,504	1,050	-	(22,427)	2,675	1,475	45	(7,150)	(4,040)	(8,868)
1/29/2024	17,784	2,202	-	(22,908)	3,150	415	1,265	(2,509)	(1,050)	(1,651)
1/30/2024	17,251	3,630	2,155	(20,155)	3,150	369	50	(1,833)	(195)	4,422
1/31/2024	6,582	1,889	-	(27,698)	-	-	-	-	-	(19,228)
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	202	(3,691)	(3)	6,758
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	52	(1,360)	(1,077)	(7,186)

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

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