

US Rates Watch

Follow the money: cash & collateral trends
Feb 27 update**Money map: month-end settlements to drive repo higher**

Repo markets are stable and funding conditions have eased YTD which has slowed the outflows out of ON RRP. We attribute this softening in repo to lower leverage demand and more specials activity (see [Stable repo: less leverage & more specials](#)). Month-end UST settlements will likely drive upward pressure in repo later this week, in part due to dealer financing needs, but forward settling repo implies minimal upward pressure relative to levels seen around month-ends in Q4 '23. Funding market stability implies there is still plenty of cash in the front-end.

Cash: Fed balance sheet shows continued reserve decline

Fed balance sheet data (Exhibit 1) for the week ending Feb 21, showed Fed assets declined \$52b, including \$34b in securities holdings from QT. On the Fed's liability side, reserves declined \$14b, alongside a \$43b decline in TGA (Exhibit 2). This was partially offset by a \$10b increase in foreign RRP and currency in circulation. ON RRP was unchanged on the week ending Feb 21 but declined later in the week (Exhibit 3). Month-end settlements, which can drive upward pressure in repo has driven declines in ON RRP take-up on non-quarter-end dates but we saw an increase in January with easier funding conditions. Funding conditions still appear relatively easy in Feb despite higher issuance and we therefore still expect ON RRP take-up to tick up on month-end.

Cash: gov't inst'l funds reverse recent outflows

Over the week ending Feb 23 MMF AUM increased \$16bn as gov't funds reversed the last few weeks of institutional outflows (Exhibit 4). Government institutional funds tend to see large inflows on Thursdays but large outflows on Friday as corporate investors typically do not want their cash locked up over the weekend. 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 \$48b on the week ending Feb 14 (Exhibit 7). The increase was driven by bank deposit inflows and higher borrowing by large domestic bank. Domestic banks kept a good portion of the deposit inflows in cash but also increased securities holdings, investments in repo, and other bank assets. Foreign banks conversely saw a reduction in total assets which drained primarily out of cash holdings. Despite higher bank assets on the week, reserves reflected an \$18b decline over the same week, implying the overall reserves figure may not be an accurate representation of bank funding conditions.

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[See Team Page for List of Analysts](#)**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: 27 February 2024 08:00AM EST

Cash bottom line: declines in the TGA largely offset the decline in Fed assets from QT, but we still saw a \$14b outflow in reserves which went into currency in circulation and foreign RRP. MMFs saw large inflows into gov't inst'l MMFs, reversing some of the recent outflows. ON RRP continued its downward trend in the 2H of last week but is likely to temporarily jump on month-end.

Collateral: UST to issue \$96b in coupons on Thursday

UST issuance has totaled \$234b MTD due to \$190b in bill issuance and \$44b in coupon issuance. We expect \$96b in coupon settlements on month-end to drive some upward pressure in repo, in line with prior month-end settlement dates.

FHLB debt was relatively flat last week but still \$62b higher MTD, according to our estimates. FHLBs attributed the higher issuance in part due to bank advance demand but largely due to "pre-funding" ahead of called bonds and large maturities. Fed funds volumes are little changed on the week, implying no significant change to FHLB excess cash.

CP issuance: Data from the Federal Reserve shows that on the week ending Feb 21 CP outstanding increased \$16b, with a \$12b increase in financial CP and a \$4b increase in non-financial CP (Exhibit 11). This is the largest increase in financial CP outstanding on a week since the second week of 2024 but not a signal of bank funding stress.

Collateral bottom line: Coupon and bill settlements this week will likely drive some upward pressure in SOFR, consistent with prior month-ends. Funding markets still appear flush with cash and therefore we expect the upward pressure to be limited. FHLB debt outstanding was little changed according to our estimates but banks issued more CP.

Funding: month-end settlements to drive repo higher

Dealer holdings, which are 1-week lagged, show a \$647m increase in Treasury holdings on the week ending Feb 14 (Exhibit 12), with a \$6b increase in bills partially offset by a \$5b decline in coupons and \$1.4b decline in TIPS holdings. Dealer holdings are still \$31b higher YTD, primarily from higher bills and coupons. Dealer holdings will likely increase on month-end, which will likely drive upward pressure in repo.

Repo volumes: SOFR volumes increased \$70b on the week ending Feb 23 likely from GSE cash coming into the system (Exhibit 15). SOFR printed 1bp higher on Friday and is likely to stay elevated into next week due to month-end settlements and typical month-end overhang. Sponsored volumes are lower on the week, largely due to declines in bilateral repo volumes (Exhibit 16). We attribute the recent softness in SOFR to lower leverage demand and higher repo specials activity (see [Stable repo: less leverage & more specials](#)).

Funding bottom line: month-end settlements are likely to drive dealer UST holdings higher, placing upward pressure on repo rates and pushing volumes higher. We expect to see sponsored cash come in on month-end which will likely cap the cheapening in repo rates. The limited upward pressure in repo will likely mean MMFs park more cash at the ON RRP on month-end.

Key takeaway: Repo markets are stable and funding conditions have eased YTD which has slowed the outflows out of ON RRP. We attribute this softening in repo to lower leverage demand and more specials activity. Month-end settlements will likely drive upward pressure in repo later this week, driven by dealer UST financing needs, but forward settling repo implies the upward pressure in repo is so far limited and there is still plenty of cash in system.

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

Reserves declined \$14b while ON RRP was unchanged

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
2/14/2024	7,112	0	2	165	0	405	2,328	330	575	832	3,537	82	7,685
2/21/2024	7,078	0	2	165	0	387	2,331	340	575	789	3,523	75	7,632
WoW Change	-34	0	0	0	0	-18	3	10	0	-43	-14	-6	-52
YTD Change	-147	0	0	29	-1	-12	-14	-7	-244	76	89	-31	-131

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 -\$14.37bn as of Feb 21



Source: Federal Reserve

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

ON RRP take-up decreased -\$33.14bn from prior week as of Feb 23



Source: FRBNY

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

MMF AUM increased \$16b WoW as of Feb 23, 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
2/16/2024	6,393	1,385	4,881	128	2,304	3,962	656	3,305	728	1,576
2/23/2024	6,409	1,387	4,895	127	2,304	3,978	655	3,323	732	1,572
WoW change	16	2	14	0	0	16	-2	17	4	-4
YTD change	109	79	33	-4	72	40	39	1	40	32

Source: Crane Data

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Exhibit 5: MMF AUM (\$bn)

MMFs saw -\$5.32bn in flows from prior week as of Feb 21

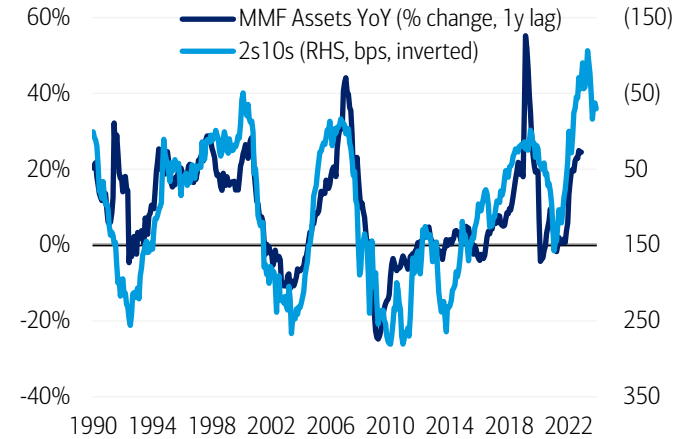


Source: ICI, Bloomberg

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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, repo, 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	2/14/2024	23336	3570	1564	2542	639	12304	2717		17489	2379	15110	2460	328	3060
Banks	WoW Chg	48	1	4	8	6	9	19		55	13	42	8	-49	33
	YTD Chg	-39	85	-32	29	-54	-69	2		-124	115	-239	135	-48	-3
Domestic	2/14/2024	20092	2168	1456	2512	255	11214	2488		16151	1544	14607	1405	-361	2897
Banks	WoW Chg	64	16	9	7	11	5	16		47	6	42	8	-16	25
	YTD Chg	-205	-103	-27	29	-53	-66	15		-199	68	-267	61	-89	22
Large	2/14/2024	13489	1701	1162	1929	224	6741	1733		10826	849	9977	984	-394	2073
Banks	WoW Chg	58	16	9	6	11	3	13		43	3	40	6	-18	27
	YTD Chg	-193	-94	-26	20	-54	-64	24		-175	39	-214	62	-94	14
Small	2/14/2024	6603	467	294	583	31	4473	755		5325	694	4631	421	33	824
Banks	WoW Chg	6	1	1	1	0	2	2		4	2	2	1	2	-1
	YTD Chg	-12	-9	-2	9	2	-3	-9		-23	29	-53	0	5	7
Foreign	2/14/2024	3243	1402	108	30	384	1090	229		1338	835	502	1054	688	163
Banks	WoW Chg	-16	-15	-5	1	-5	4	4		8	8	1	1	-33	8
	YTD Chg	166	187	-4	0	-1	-3	-13		75	47	28	74	42	-24

Source: Federal Reserve H8

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

Treasury issuance has increased \$234b in Feb MTD, primarily 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	233,903	190,031	43,872	1,846,000	1,697,000	149,000	1,612,097	1,506,969	105,128
YTD	403,849	300,143	103,706	3,984,000	3,504,000	480,000	3,580,151	3,203,857	376,294
FYTD	1,209,478	738,574	470,904	11,037,000	9,615,000	1,422,000	9,827,522	8,876,426	951,096

Source: BofA Global Research, Haver Analytics

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

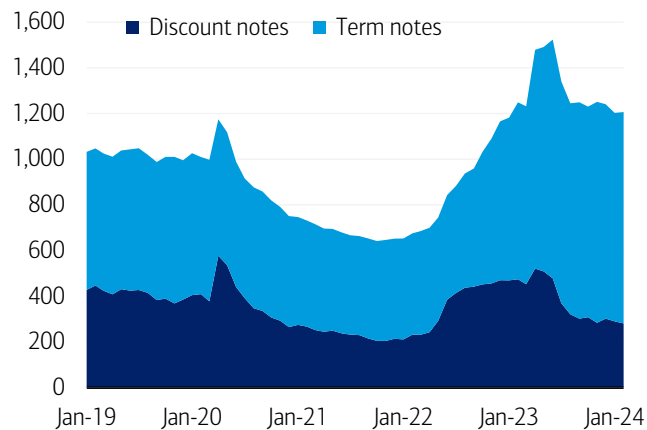
FHLB cumulative debt is roughly \$14bn lower since March 1 '23



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 was \$4b higher in January

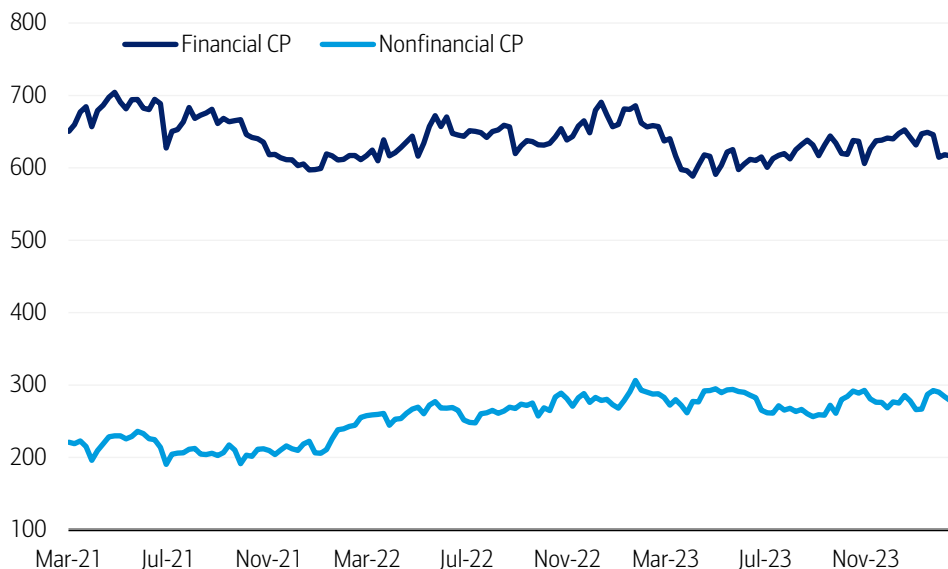


Source: BofA Global Research, FHLB Office of Finance

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Exhibit 11: Commercial paper (\$bn)

CP outstanding increased \$15.7b on the week ending Feb 21



Source: Bloomberg

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Exhibit 12: Primary dealer holdings (\$mn)

PD holdings of UST increased \$647m WoW driven by higher T-bill and FRN holdings but lower coupon and TIPS. Data as of Feb 14 due to lag

	Total	US Treasuries					Agency ex MBS	MBS	Corporates	Commercial Paper	State & Munis	ABS	Variable Rate Notes
			Bills	Coupons	FRNs	TIPS							
2/14/2024	430,951	281,998	84,632	176,452	1,352	19,562	20,134	95,250	11,241	6,256	10,794	8,083	3,451
Chg WoW	1,742	647	6,360	-4,912	621	-1,422	4,344	696	-2,435	-663	-1,108	495	-897
Chg YTD	31,476	25,609	19,305	15,882	-11,595	2,017	8,117	-1,980	-123	2,265	-1,590	584	859
Chg since DL	46,240	38,810	-2,621	47,693	-4,043	-2,219	3,607	14,405	-6,901	-3,314	-4,083	964	-562

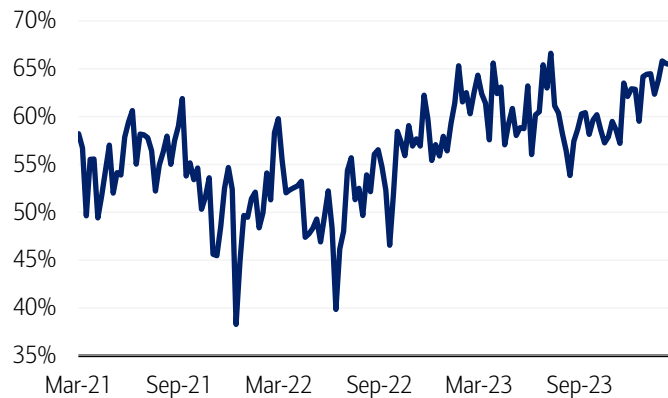
Source: BofA Global Research, Bloomberg

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

Latest level 65% as of Feb 14

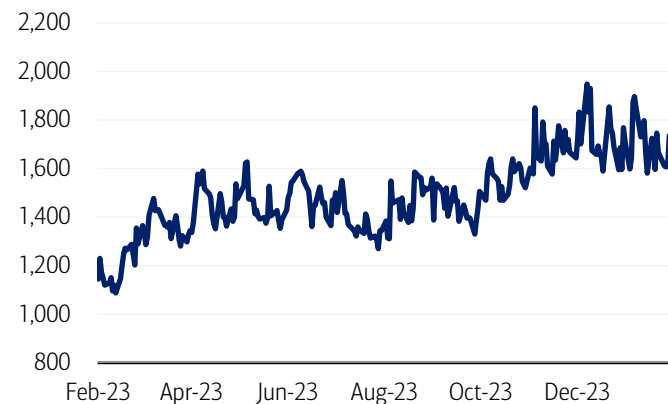


Source: BofA Global Research, Bloomberg

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Exhibit 15: SOFR volumes (\$bn)

SOFR volumes decreased -\$10bn from prior week as of Feb 23

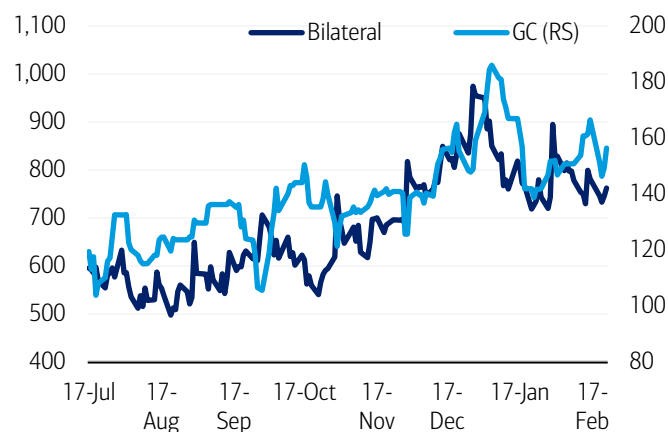


Source: FRBNY

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

Sponsored bilateral declined \$19b WoW, while GC declined \$10b



Source: OFR

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

PD holdings of bills and coupons have increased MoM

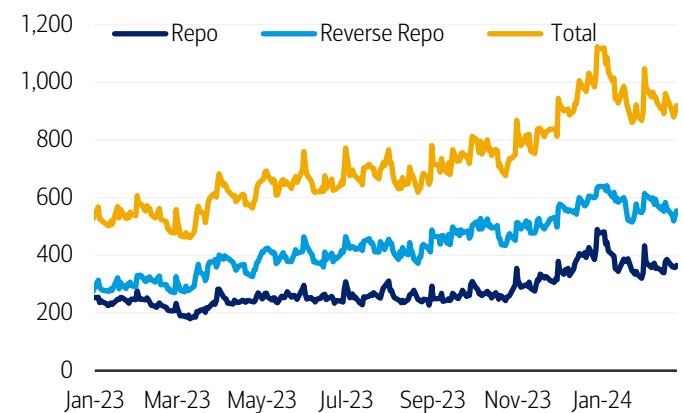
	Bills	Coupons	FRNs	TIPS	Total
1/17/2024	49,182	169,934	9,113	17,289	245,518
2/14/2024	84,632	176,452	1,352	19,562	281,998
MoM Change	35,450	6,518	(7,761)	2,273	36,480
Level Z-score	1.64	1.12	(1.58)	1.70	1.71

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Exhibit 16: Sponsored Repo Volumes (\$bn)

Sponsored repo volumes declined \$29b from prior week as of Feb 23



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	52	(1,360)	(1,077)	(7,186)
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	2,607	(7,115)	(1,560)	3,333
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)

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

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