

# US Rates Watch

## Follow the money: FHLBs, MMF, & Fed April 28 update

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

**Key takeaway:** banking system stress remains elevated but is showing modest signs of improvement. FHLB net issuance has grown \$42b over the last three days. FHLBs noted a range of bank funding needs as driving the pick-up. Fed H.4.1 also reflected an increase in bank funding demand with an \$11b increase in bank lending facilities on the week as reserves drained \$33b.

**FHLB activity:** FHLB debt issuance grew \$19b on Thursday, April 27<sup>th</sup> (Exhibit 2), for a total of \$42b over the last three days. Market color from FHLBs noted a broad range of reasons for higher issuance, including advances to banks, pre-funding, and precautionary funding. FHLB have also grown discount note issuance by \$31b on the week, after weeks of decline. We expect issuance could remain elevated given increased market uncertainty/pressures since bank earnings.

**Money market funds:** According to Crane data, MMF AUM increased \$9b on April 26<sup>th</sup>, continuing the trend of inflows into gov't institutional funds (Exhibit 6). Gov't institutional MMF AUM is now \$310b above their March 8 levels.

**ON RRP:** take-up declined \$6bn on Thursday (Exhibit 8), despite MMF inflows. This was likely driven by the recent pickup in FHLB debt issuance.

We expect MMF take-up at the ON RRP to increase heading into the X-date as MMFs typically want to avoid bills maturing following projected X-dates. Some gov't MMFs are Treasury-only & cannot invest at Fed RRP, contributing to richening in short-dated bills.

**Tax receipts:** continue to trend upward as inflows from individual checks get processed (Exhibit 12), however, the TGA still dropped \$20b, the first decline since April 12<sup>th</sup> (Exhibit 13). We still expect an X-date of August 1, see detail here: [X-date shift & bill supply update](#).

**Fed data:** Fed H.4.1 for the week ending April 26 showed a \$4b increase in the discount window and \$7b increase in the BTFP, but a \$31b decline in the Fed's balance sheet overall. The \$31b increase in the TGA was offset by a \$33b decline in reserves and \$28b decline in RRP.

*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*

28 April 2023

Rates Research  
United States

**Katie Craig**  
Rates Strategist  
BofAS  
+1 646 855 6625  
[katie.craig@bofa.com](mailto:katie.craig@bofa.com)

**Mark Cabana, CFA**  
Rates Strategist  
BofAS  
+1 646 855 9591  
[mark.cabana@bofa.com](mailto:mark.cabana@bofa.com)

**US Rates Research**  
BofAS  
+1 646 855 8846

[See Team Page for List of Analysts](#)

### 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: 28 April 2023 05:50AM EDT

**Exhibit 1: Data on FHLB issuance + ON RRP / MMF flows (\$bn)**

FHLB net issuance has seen a notable pickup since Apr 25

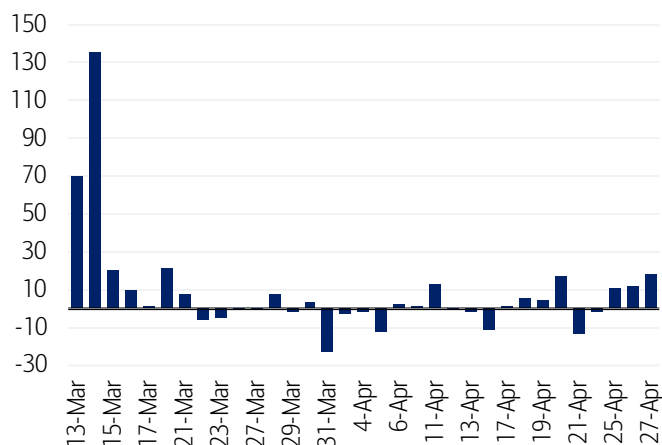
FHLBs	13-Apr	14-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	24-Apr	25-Apr	26-Apr	27-Apr
Total	-1.83	-11.33	0.35	5.69	5.01	17.37	-13.47	-1.27	11.47	11.88	18.58
DN outstanding	517.08	507.97	505.69	509.94	508.31	518.65	507.19	507.25	521.49	527.37	538.85
Money Markets	13-Apr	14-Apr	17-Apr	18-Apr	19-Apr	20-Apr	21-Apr	24-Apr	25-Apr	26-Apr	27-Apr
ON RRP Total	2,321.70	2,253.79	2,256.85	2,238.99	2,294.68	2,277.26	2,290.02	2,308.54	2,275.40	2,279.56	2,273.93
ON RRP Change (d/d)	17.84	-67.91	3.06	-17.85	55.68	-17.42	12.76	18.51	-33.14	4.16	-5.64
MMF Flows	-0.42	-37.50	9.87	-8.51	-9.17	22.51	3.43	15.97	14.18	8.68	
MMF Inflow - RRP Change	-18.26	30.41	6.81	9.34	-64.85	39.93	-9.33	-2.54	47.32	4.52	

Source: BofA Global Research, Bloomberg, FHLB Office of Finance, Crane Data Note: For FHLB data we use estimates of daily net issuance

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

FHLB daily debt issuance has slowed

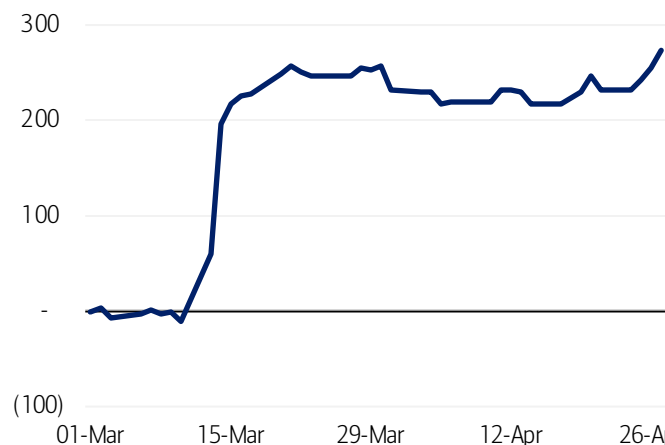


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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

Daily FHLB cumulative debt is roughly \$273bn higher since March 1

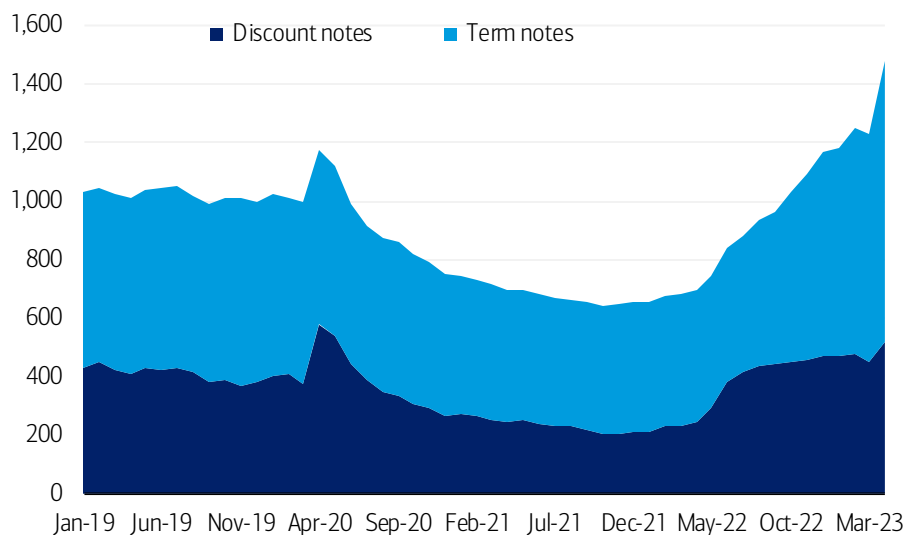


Source: Bloomberg, FHLB Office of Finance. Note: we use estimates of daily net issuance

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

Higher FHLB debt issuance leading to more MMF investment

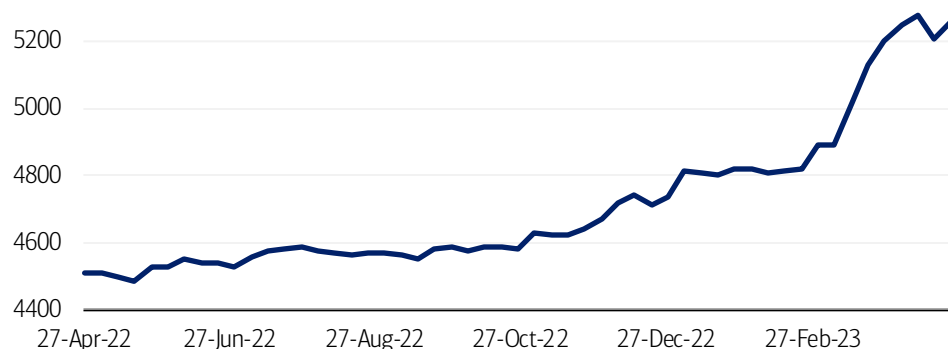


Source: FHLB Office of Finance

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**Exhibit 5: MMF AUM (\$bn)**

MMFs saw \$53.83bn in flows from prior week



Source: ICI, Bloomberg

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**Exhibit 6: ICI Money Market Fund AUM (\$bn)**

MMF aum rose \$54bn 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
4/19/2023	5,209	767	4,332	110	1,894	3,315	257	3,048	11	510	1,284	99
4/26/2023	5,263	772	4,383	107	1,899	3,364	258	3,095	11	514	1,288	97
WoW Change	54	6	51	-3	5	49	2	48	0	4	3	-2
Change since 3/8	369	-22	400	-9	72	297	-11	310	-2	-11	90	-6

Source: ICI, Bloomberg

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**Exhibit 7: Daily Crane MMF AUM (\$bn)**

MMF AUM grew \$9b from prior day, continuing flows into gov't institutional

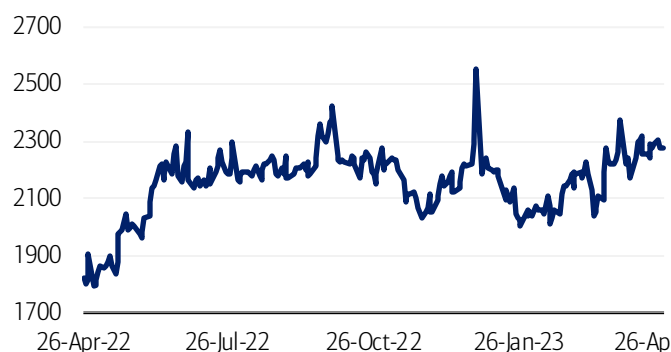
Dates	Total	Prime	Gov't	Tax exempt	Retail	Institutional	Prime Institutional	Gov't Institutional	Prime Retail	Gov't Retail
4/20/2023	5,644	1,171	4,358	115	1,805	3,724	658	3,066	513	1,292
4/21/2023	5,648	1,172	4,361	115	1,803	3,730	658	3,072	514	1,289
4/24/2023	5,664	1,174	4,376	114	1,805	3,745	659	3,086	515	1,290
4/25/2023	5,678	1,177	4,387	114	1,809	3,756	662	3,094	516	1,293
4/26/2023	5,687	1,176	4,397	114	1,810	3,763	659	3,104	516	1,294
DoD Change	9	-2	11	0	1	8	-2	10	1	1
WoW change	65	11	56	-3	9	59	7	52	4	5

Source: Crane Data

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**Exhibit 8: ON RRP take-up (\$bn)**

ON RRP take-up decreased \$5.64bn from prior day

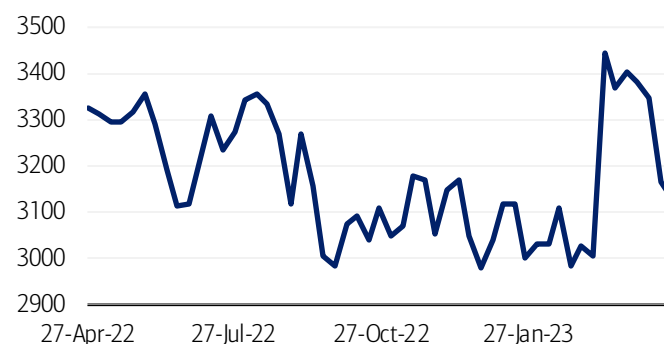


Source: FRBNY

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**Exhibit 9: Fed reserve balances outstanding (\$bn)**

Change in reserve balance from prior week was -\$32.78bn



Source: Federal Reserve

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**Exhibit 10: US Commercial Bank balance sheets, selected assets & liabilities (\$bn)**

Domestic banks saw deposits increase but borrowings declined

		Total	Assets						Liabilities			
			Cash	UST & Agy	MBS	Repo & FF	Loans & Leases	Other	Deposits	Borrowings	Net due to related foreign offices	Other
All	4/12/2023	22951	3353	1549	2604	616	12051	2777	17380	2399	262	2910
Banks	1w Chg	-35	-28	-4	-18	-2	-9	26	-49	43	-60	32
	1m Chg	-306	-100	-64	-119	12	-39	4	-110	-83	-100	-13
	YTD Chg	-25	258	-104	-169	15	-54	29	-565	544	-8	4
Domestic	4/12/2023	19935	2081	1443	2579	261	11015	2555	16132	1447	-400	2756
Banks	1w Chg	-40	-39	-2	-16	-1	-5	23	-49	11	-13	11
	1m Chg	-284	-73	-56	-118	-5	-35	5	-61	-145	-60	-17
	YTD Chg	-66	213	-104	-158	-52	-32	67	-499	463	-61	31
Large	4/12/2023	13194	1601	1143	1946	221	6558	1725	10736	893	-431	1995
Banks	1w Chg	-37	-36	-2	-15	1	-7	22	-41	1	-11	14
	1m Chg	-78	-20	-50	-10	-2	20	-16	-60	15	-59	27
	YTD Chg	75	187	-73	-14	-44	-17	36	-270	317	-55	83
Small	4/12/2023	6742	480	300	633	41	4457	830	5396	553	31	761
Banks	1w Chg	-3	-3	0	-1	-2	2	1	-8	10	-2	-3
	1m Chg	-206	-54	-7	-108	-3	-55	21	-1	-160	-1	-44
	YTD Chg	-141	26	-31	-144	-8	-15	31	-229	146	-6	-52
Foreign	4/12/2023	3016	1272	106	26	354	1036	222	1248	952	662	153
Banks	1w Chg	5	11	-3	-2	-1	-4	3	-1	32	-47	21
	1m Chg	-22	-27	-8	-1	18	-3	-1	-49	62	-40	5
	YTD Chg	41	45	0	-11	67	-22	-38	-66	81	53	-27

Source: Federal Reserve H8

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**Exhibit 11: Fed balance sheet, selected assets & liabilities (\$bn, Wednesday comparison data)**

Cash in banking system exceeded Fed balance sheet growth due to lower ON RRP

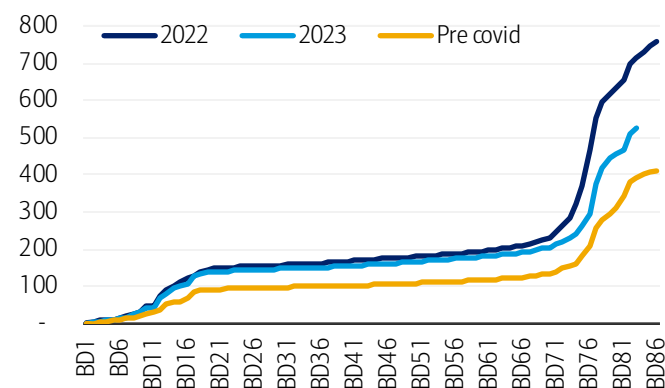
Dates	Assets						Liabilities						Total
	Securities	Repo	Discount Window	BTFP	FDIC bank credit extension	CB Liquidity Swaps	Currency	Foreign RRP	ON RRP	TGA	Reserves		
4/19/2023	7,860	20		70	74	173	0	2,323	372	2,295	265	3,165	8,643
4/26/2023	7,844	0		74	81	170	0	2,324	359	2,280	296	3,132	8,613
Change from 4/19-4/26	-17	-20		4	7	-2	0	1	-12	-15	31	-33	-31
Change from 3/8-4/26	-104	0		69	81	170	0	16	-8	86	-16	128	221

Source: BofA Global Research, Federal Reserve

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**Exhibit 12: Cumulative individual tax receipts YTD (\$bn)**

'23 receipts are well below '22 but above the pre-COVID average

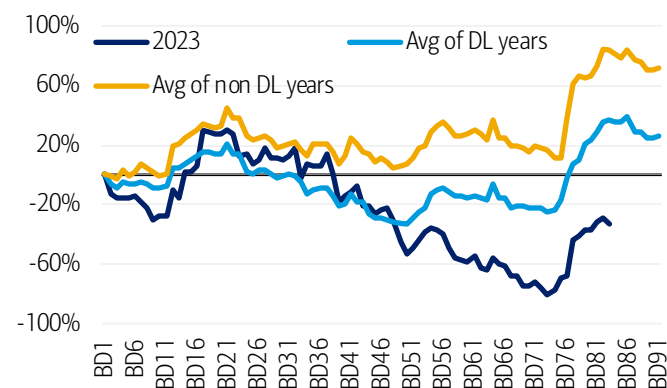


Source: BofA Global Research, Treasury

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**Exhibit 13: Percent change in TGA YTD**

TGA has not recovered from debt limit drain YTD despite tax inflows



Source: BofA Global Research, Treasury

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# Appendix

## Exhibit 14: 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	Total
3/1/2023	14,450	6,550	-	(21,685)	-	1,317	603	(2,794)	(1,559)
3/2/2023	17,964	4,656	5,650	(17,127)	-	114	789	(6,685)	5,361
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)	7,977
3/29/2023	17,095	1,957	-	(29,865)	1,000	9,924	162	(1,881)	(1,609)
3/30/2023	15,250	4,213	4,700	(20,936)	-	3,498	129	(3,202)	3,652
3/31/2023	8,000	964	-	(32,122)	-	-	-	-	(23,158)
4/3/2023	9,620	2,421	-	(16,456)	-	7,642	96	(6,175)	(2,852)
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)	2,083
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)	(1,831)
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)	351
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)	(13,467)
4/24/2023	17,600	5,499	-	(23,041)	-	4,645	30	(6,005)	(1,272)
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	-	11,883
4/27/2023	19,800	6,206	7,000	(21,528)	6,480	4,140	80	(3,600)	18,578

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

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## Research Analysts

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**Ralph Axel**

Rates Strategist  
BofA  
[ralph.axel@bofa.com](mailto:ralph.axel@bofa.com)

**Bruno Braizinha, CFA**

Rates Strategist  
BofA  
[bruno.braizinha@bofa.com](mailto:bruno.braizinha@bofa.com)

**Mark Cabana, CFA**

Rates Strategist  
BofA  
[mark.cabana@bofa.com](mailto:mark.cabana@bofa.com)

**Katie Craig**

Rates Strategist  
BofA  
[katie.craig@bofa.com](mailto:katie.craig@bofa.com)

**Meghan Swiber, CFA**

Rates Strategist  
BofA  
[meghan.swiber@bofa.com](mailto:meghan.swiber@bofa.com)

**Anna (Caiyi) Zhang**

Rates Strategist  
BofA  
[cai yi.zhang@bofa.com](mailto:cai yi.zhang@bofa.com)

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