

US Rates Watch

Bill supply: still heavy & bills cheaper

Bill supply update: \$400+b net thru Nov

Treasury bill issuance remained robust in September and cheapening relative to OIS has increased over the month. Dealer holdings of bills are still below levels pre debt limit resolution but are \$9b higher MTD. We expect bill issuance in October and November to be a robust \$433b, which should contribute to further bill cheapening. In this piece we update our forecasts for upcoming bill supply and discuss our expectations for demand.

Supply keeps coming: slower pace but still fast

Bill supply has increased \$1.6tn YTD, with over 3/4ths coming since the debt limit resolution in June (Exhibit 1). We are forecasting over \$400b in net new bills to the public in the 4th quarter, totaling roughly \$2tn in net new bill supply over CY '23 (Exhibit 2). The Treasury announced higher bill auction sizes starting this week which will help to cover the large deficits typically incurred in October and November. The pace of Treasury supply expected over the next 2 months is slower than the \$325b/m average pace seen since June but well above the \$200b/y average pace pre COVID.

MMF buying but likely at a slower pace

According to Crane Data, MMFs have taken down 65% of the net new bill supply between May and Aug month-ends (Exhibit 3). This aligns with the increase in MMF WAM as MMFs have shifted out of overnight RRP and into Treasury bills (Exhibit 4).

MMF buying pace may have slowed, according to Treasury auction data. Auction data implies that MMF takedowns have declined as a percent of total offering in recent weeks (Exhibit 5). This aligns with a recent increase in dealer bill holdings (Exhibit 6).

A slowdown in MMF bill buying may be due to WAMs normalizing. MMF WAMs and their bill holdings as a percent of bills outstanding are still well below their historical averages but are unlikely to increase as rapidly in relation to the post debt limit increase. MMF likely have remaining capacity to take-down bill supply if bills remain cheap to ON RRP and there is some confidence around the Fed's path.

Bills likely headed cheaper as MMF WAM normalizes

Bill supply has been absorbed with minimal impact on rates, likely due to MMF WAM extension. However, as MMF WAMs have normalized bills have modestly cheapened & dealer holdings have increased (Exhibit 7). As MMF demand for bills slows and supply continues, we expect to see more bill cheapening.

The increase in debt issuance has also contributed to cheapening in repo rates and higher repo volumes on large settlement dates, in line with our expectations for the cheapening in rates as liquidity is drained via QT (for more detail, see: [US funding: subtle repo ripple](#)). We expect the cheapening in repo to be small and well contained until ON RRP has been sufficiently drained.

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MMF: Money Market Fund

CY: Calendar Year

MTD: Month to date

QT: Quantitative Tightening

WAMs: Weighted average maturity

ON RRP: Overnight reverse repo facility

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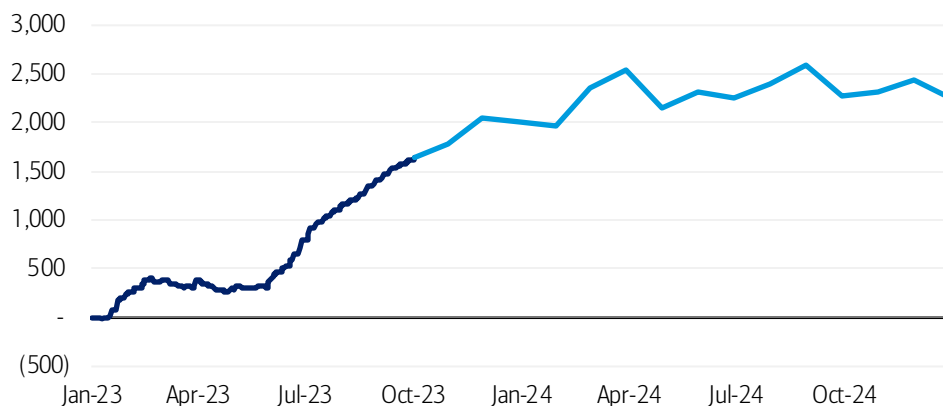
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Exhibit 1: Cumulative bill supply 2023 YTD and projection through YE 2024 (\$bn)

Bill supply to the public totals \$1.6tn YTD



Source: BofA Global Research, Bloomberg

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Exhibit 2: Bill and coupon issuance estimates by month

We expect bills to the public to increase roughly \$400b over the quarter

	Financing Need	TGA EOP	TGA Change	Marketable Borrowing	Buybacks	Net Coupon	Net Bills	Fed Coupon maturities	Fed Bill maturities	Net Coupons to the Public	Net Bills to the Public
	1	2	3 = 1 + 2	4	5	6	7	8	9 = 5 - 7	10 = 6 + 8	
Apr-23	-305	316	138	-167	0	-41	-126	60	0	19	-126
May-23	361	49	-267	94	0	43	51	60	0	103	51
Jun-23	197	402	353	550	0	77	473	48	12	125	485
Jul-23	148	502	100	248	0	-56	304	50	10	-6	314
Aug-23	294	542	40	334	0	30	304	60	0	90	304
Sep-23	176	650	108	284	0	98	186	39	21	137	207
Oct-23	200	650	0	200	0	33	167	52	8	85	175
Nov-23	257	700	50	307	0	49	258	60	0	109	258
Dec-23	30	750	50	80	0	125	-45	46	14	171	-31
Jan-24	-64	754	4	-60	0	4	-65	52	8	56	-56
Feb-24	446	758	4	450	10	61	389	60	0	121	389
Mar-24	301	760	2	303	10	132	172	45	15	176	187

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Exhibit 3: Bills outstanding versus total MMF holdings (\$bn)

MMF bill holdings as % of total averaged 38% in 2020-2021

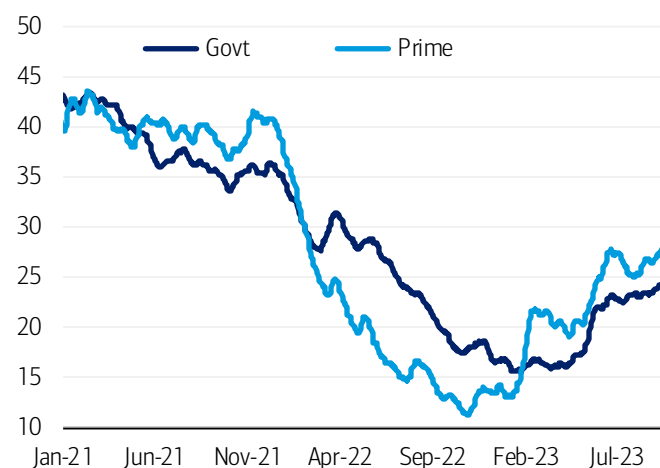
	Bills Outstanding	MMF Holdings	MMF as % Total
Apr-22	3826	1093	29%
May-22	3671	984	27%
Jun-22	3523	896	25%
Jul-22	3514	892	25%
Aug-22	3724	846	23%
Sep-22	3644	761	21%
Oct-22	3665	765	21%
Nov-22	3811	706	19%
Dec-22	3696	598	16%
Jan-23	3937	662	17%
Feb-23	4056	644	16%
Mar-23	4068	663	16%
Apr-23	3941	656	17%
May-23	3992	576	14%
Jun-23	4466	888	20%
Jul-23	4769	1124	24%
Aug-23	5073	1277	25%

Source: BofA Global Research, Crane Data

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Exhibit 4: MMF WAM 5 day moving avg (Days)

In '20-'21, gov't WAMs averaged 38 days, prime WAMs averaged 39 days



Source: BofA Global Research, iMoneyNet

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Exhibit 5: Recent Treasury bill auction results

Indirect bidder takedown as % of offering, which include MMFs, have recently been below the average of auctions of the same tenor over the last 5 months, while PD takedown has been above average

	Tenor	Auction Date	Maturity Date	Offering amount (\$mn)	High rate	Bid to Cover ratio	% Direct bidders	% Indirect bidders	% Primary Dealers
Upcoming bill auctions	4-Week	9/28/2023	10/31/2023	85,000					
	8-Week	9/28/2023	11/28/2023	75,000					
	17-Week	9/27/2023	1/30/2024	52,000					
This week's bill auctions	42-Day	9/26/2023	11/9/2023	60,000	5.29%	2.89	3.96%	65.64%	30.40%
	13-Week	9/25/2023	12/28/2023	69,000	5.33%	2.77	5.57%	51.81%	42.62%
	26-Week	9/25/2023	3/28/2024	62,000	5.32%	2.91	5.14%	58.87%	35.99%
Last week's bill auctions	4-Week	9/21/2023	10/24/2023	80,000	5.28%	2.8	4.75%	53.12%	42.13%
	8-Week	9/21/2023	11/21/2023	70,000	5.30%	2.58	5.29%	45.87%	48.83%
	17-Week	9/20/2023	1/23/2024	50,000	5.34%	2.83	4.72%	48.66%	46.63%
	42-Day	9/19/2023	11/2/2023	60,000	5.29%	3.1	3.09%	53.29%	43.62%
	13-Week	9/18/2023	12/21/2023	69,000	5.32%	2.86	5.59%	52.44%	41.97%
	26-Week	9/18/2023	3/21/2024	62,000	5.30%	3.05	5.06%	60.50%	34.44%

Source: BofA Global Research, Treasury Direct

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Exhibit 6: PD UST holdings by security type (\$mn)

PD holdings of bills are still higher than avg but declining

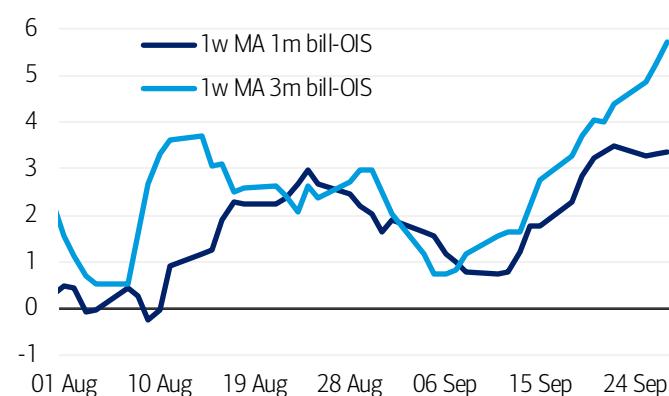
	Bills	Coupons	FRNs	TIPS	Total
8/30/23	55,607	126,704	5,971	13,690	201,972
9/13/23	64,896	131,264	5,450	12,868	214,478
MTD Change	9,289	4,560	(521)	(822)	12,506
Level Z-score	1.37	0.60	(0.31)	0.64	0.95

Source: BofA Global Research, Bloomberg. Note: Level Z-score is as of Sept 13

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Exhibit 7: 1 week moving average T-bill-OIS spread by tenor (bps)

3m bills have cheapened 6bps MTD



Source: BofA Global Research, Bloomberg

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