

US Rates Watch

Bill supply: higher despite coupon growth

Bill supply: higher & levels likely slowly cheaper

Bill supply has been robust with nearly \$1.4tn in net new issuance since June (Exhibit 1). We expect Treasury to announce another large slate of coupon size increases at the November refunding but this will not stop bill supply growth. October bill supply will end the month over \$200b higher and we forecast an additional \$300b in November, driven by a \$800b Q4 '23 financing need (Exhibit 2). If recent California tax payments & elevated TGA reduce financing needs, bill supply could realize lower. In CY 2024 we expect more modest bill supply and forecast \$437b of issuance over the year. Ongoing bill supply growth should continue to place slow cheapening pressure on bills-OIS.

Bill supply >20% of marketable debt through FY '26

As discussed in our [November refunding preview](#) report, Treasury coupon auction sizes are likely headed higher. Still, rising deficits will lead to a continuation of bill supply growth. We believe Treasury will allow for bill supply moderately above TBAC's 15-20% recommended range for bills as a % of outstanding to smooth the path towards a higher net cash raise via coupons (Exhibit 3).

Bill supply path dependent on QT timing

We forecast net bill supply to grow \$732b in FY '24, decline \$27b in FY '25, and increase \$479b in FY '26, assuming QT ends in June 2024 with the first Fed cut (Exhibit 2). A continuation of QT into mid-June '25 would lead to approximately \$150b and \$390b in more bill supply in FY '24 & '25, respectively. Longer QT = higher bill supply.

MMFs have taken down most of the net new bill supply

Dealer holdings of Treasury bills have not risen meaningfully despite all the recent bill supply (Exhibit 4, Exhibit 5). Low dealer holdings of bills imply real money demand for bills has been robust which aligns with the limited amount of cheapening we've seen in bills vs OIS. September month-end snapshot of MMF holdings implies that since the debt limit resolution, MMF bill holdings have increased nearly 1.5x and have increased from holding 14% of bills outstanding to 27% (Exhibit 6).

Rate impact: bills likely to continue slow cheapening

Bill to OIS spreads have cheapened only modestly due to the elevated bill supply (Exhibit 1). We expect ongoing bill supply will contribute to modest cheapening pressure on bills-OIS in the months ahead. We expect bills will cheapen since MMF WAMs appear to have stabilized and MMF will need more incentive to extend out the money market curve (unless Fed cuts appear imminent) (Exhibit 7). We might expect the cheapening to be <5bps but can't rule out a larger impact if UST shortens WAM & offers more bills. We expect more bill cheapening in 2H '24 as Fed ON RRP declines towards zero & money market rates rise more substantially.

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UST = Treasury

QT= quantitative tightening

TBAC= Treasury Borrowing Advisory Committee

FY= fiscal year

CY = calendar year

WAM= weighted average maturity

OIS = overnight index swap

MMF: money market fund

ON RRP = overnight reverse repo facility

TGA: Treasury General Account

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Bill supply: history says further growth is possible

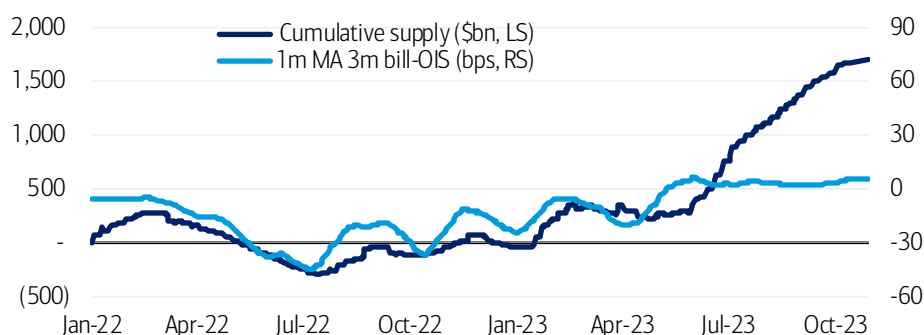
In the November quarterly refunding survey the Treasury Department asked dealers how much bill supply could grow before overwhelming demand. We think supply could grow further but it runs the risk of additional bill cheapening.

To determine how much Treasury can grow bill supply without overwhelming demand, we use MMF bill ownership as a proxy for total demand. Pre-COVID, MMFs held roughly 30% of bills outstanding, which is only \$200b above current levels. To scale for the industry size, Treasury could issue ~\$670b (\$200b/30%) in net new bill supply. This would imply bills as a % of the portfolio at 22.75%. In an extreme, MMFs could takedown up to 45% of bills outstanding, as they did in the post-COVID bill surge which would allow for up to \$2.25tn in additional bill supply. In projecting out future years, we think Treasury could hold bills as a % of total at 22.5%, this would imply a max bill outstanding in FY '24 / '25 / '26 of \$6.3tn / \$6.85tn / \$7.3tn.

Bottom line: bill supply will continue to grow in the months ahead, even with another expected sizeable increase in coupon supply. Bill supply growth should place modest upward cheapening pressure on bills vs OIS, likely <5bps. Treasury has capacity to grow bill supply further but risks a greater cheapening of bills vs OIS levels given MMF WAM extension & risks of ON RRP depletion in 2H '24.

Exhibit 1: Cumulative bill supply since Dec 2021 vs 3m bill - OIS

Bills have not cheapened significantly despite the large wave of supply



Source: BofA Global Research, Haver Analytics, Bloomberg

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Exhibit 2: Bill and coupon issuance estimates by month (\$bn)

We expect bills to the public to increase 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
Sep-23	169	657	115	284	0	98	186	39	21	137	207
Oct-23	180	650	-7	173	0	33	140	52	8	85	148
Nov-23	318	700	50	368	0	52	316	60	0	112	316
Dec-23	46	750	50	96	0	130	-34	46	14	176	-20
Jan-24	-71	754	4	-67	0	10	-77	53	7	63	-70
Feb-24	391	758	4	395	10	74	321	60	0	134	321
Mar-24	392	760	2	394	10	148	247	45	15	192	262
Apr-24	-272	764	4	-268	10	55	-323	60	0	115	-323
May-24	283	768	4	287	10	110	177	60	0	170	177
Jun-24	67	775	7	74	10	177	-103	36	24	213	-79
Jul-24	267	779	4	271	10	114	157	0	0	114	157
Aug-24	267	783	4	271	10	156	115	0	0	156	115
Sep-24	-68	790	7	-61	10	212	-272	0	0	212	-272
Oct-24	257	794	4	261	10	115	145	0	0	115	145
Nov-24	330	798	4	334	10	159	175	0	0	159	175
Dec-24	42	800	2	44	10	217	-172	0	0	217	-172

BofA Global Research, US Treasury, Federal Reserve

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Exhibit 3: Financing estimates by fiscal year (\$bn)

Bills as a share of marketable debt will remain above 20% assuming deficit forecasts & coupon supply estimates are realized

	2024		2025		2026	
	QT ends Jun '24	QT ends in Jun '25	QT ends Jun '24	QT ends in Jun '25	QT ends Jun '24	QT ends in Jun '25
1 Baseline deficit	1,800	1,800	1,900	1,900	2,000	2,000
2 Other adjustment	-	-	-	-	-	-
3 Financing need (1 + 2)	1,800	1,800	1,900	1,900	2,000	2,000
4 Change in cash balance	133	133	50	50	-	-
5 Note: cash balance end period assumption	790	790	840	840	890	890
6 Marketable borrowing need (3 + 4)	1,933	1,933	1,950	1,950	2,000	2,000
7 Gross coupon auctioned	4,227	4,227	4,553	4,553	4,553	4,553
8 Total coupon maturing	3,085	3,085	3,035	3,035	3,377	3,377
9 Fed coupon rollover	207	59	578	187	465	465
10 Public coupon maturing (8 - 9)	2,878	3,026	2,456	2,847	2,912	2,912
11 Expected buybacks*	80	80	120	120	120	120
12 Net coupon supply (7 - 10 - 11)	1,269	1,121	1,977	1,586	1,521	1,521
13 Coupon runoff from Fed bal sheet	472	620	-	391	-	-
14 <i>Net coupon supply to public (12 + 13)</i>	<i>1,741</i>	<i>1,741</i>	<i>1,977</i>	<i>1,977</i>	<i>1,521</i>	<i>1,521</i>
15 Net bill supply (6 - 12)	664	812	(27)	364	479	479
16 Bill runoff from Fed bal sheet	68	100	-	-	-	-
17 <i>Net bill supply to public (15 + 16)</i>	<i>732</i>	<i>912</i>	<i>(27)</i>	<i>364</i>	<i>479</i>	<i>479</i>
18 Net supply issued (12 + 15)	1,933	1,933	1,950	1,950	2,000	2,000
19 <i>Net supply to public (14 + 17)</i>	<i>2,473</i>	<i>2,653</i>	<i>1,950</i>	<i>2,341</i>	<i>2,000</i>	<i>2,000</i>
20 Starting assumed coupons	20,488	20,488	21,609	21,609	23,586	23,195
21 Starting assumed bills	5,360	5,360	6,172	6,172	6,145	6,536
22 End assumed coupons (12 + 20)	21,757	21,609	23,586	23,195	25,107	24,716
23 End assumed bills (15 + 21)	6,024	6,172	6,145	6,536	6,624	7,015
26 Bills as % of coupons + bills (23 / (22 + 23))	21.7%	22.2%	20.7%	22.0%	20.9%	22.1%

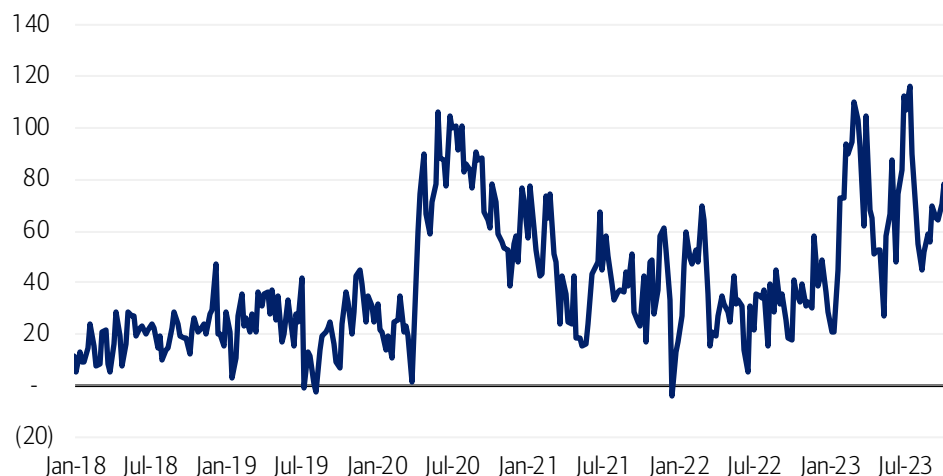
*Expect buybacks at a \$10bn/ month pace (half <1y sector, half >1y sector) and start Feb 24

Source: BofA Global Research, US Treasury, Federal Reserve

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Exhibit 4: Primary dealer bill holdings (\$bn)

Despite \$1.4tn in bill supply, dealer bill holdings are not significantly elevated



Source: BofA Global Research, Bloomberg

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Exhibit 5: Primary dealer holdings (\$bn)

PD holdings of bills have declined 22bn since the DL resolution

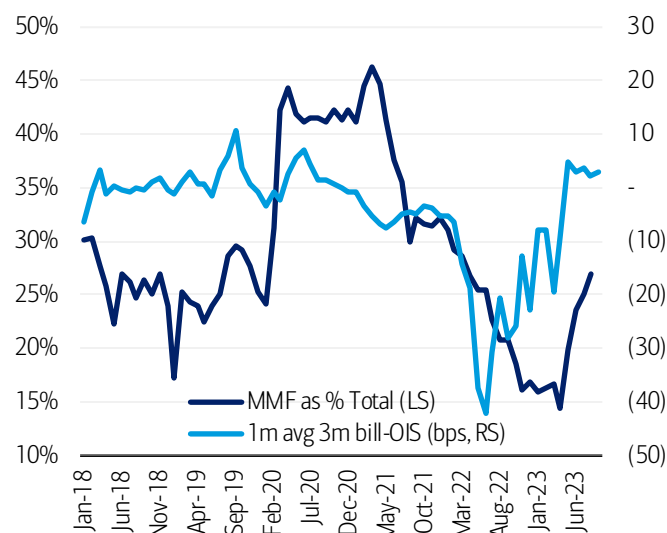
	Total	US Treasuries					Agency ex MBS	MBS	Corporates	Commercial Paper	State & Munis	ABS	Variable Rate Notes
		Bills	Coupons	FRNs	TIPS								
10/11/2023	352,527	206,612	64,971	129,304	5,193	15,128	13,855	87,265	17,882	8,141	14,201	9,197	3,515
Chg MoM	-2,597	-7,866	75	-1,960	-257	2,260	-2,282	7,647	-2,945	-1,031	1,649	294	906
Chg since DL	-32,184	-36,576	-22,282	545	-202	-6,653	-2,672	6,420	-260	-1,429	-676	2,078	-498
Chg YTD	93,970	56,803	36,341	31,451	-1,709	-1,296	604	14,978	12,447	4,601	2,991	3,377	2,770

Source: BofA Global Research, Bloomberg

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Exhibit 6: MMF bill holdings as % of total vs 1m avg 3m bill-OIS

Even as MMF holdings reached peaks >40% of outstanding, bills did not cheapen much beyond 10bps to OIS

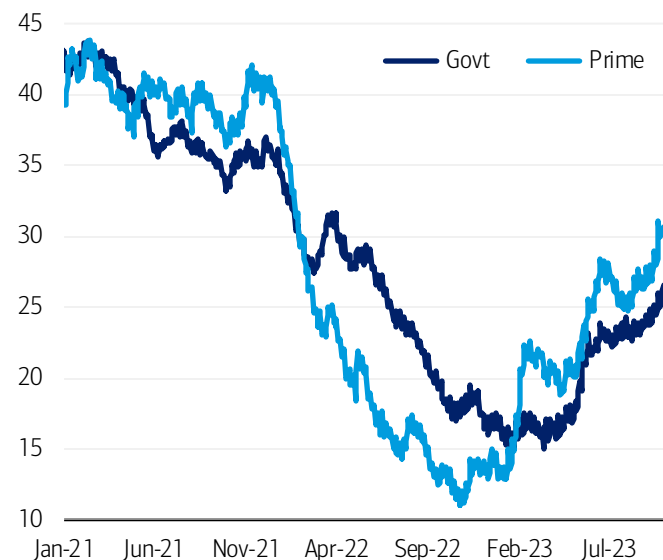


Source: BofA Global Research, Crane Data, Bloomberg

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Exhibit 7: MMF WAM (days)

MMF WAMs extending towards more historically normal levels



Source: BofA Global Research, Crane Data,

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Exhibit 8: Sources and uses reconciliation table: BofA forecast vs prior guidance from Treasury (\$bn)

We have revised up our deficit forecasts, which has driven the higher financing need estimate

	Financing Need	Marketable Borrowing	All Other Sources	Total	Change in Cash Balance	End of Quarter Cash Balance	SOMA Redemptions
	1	2	3	4 = 2 + 3	5 = 4 - 1	6	7
Treasury forecast 7/31/23	487	852	-265	587	100	750	-171
Sep-Dec '23 BofA forecast	544	823	-180	643	99	750	-180
Jan-Mar '24 BofA forecast	712	902	-180	722	10	760	-180

Source: BofA Global Research, Treasury

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