Treasury Buyback Program Enhancements

Treasury Borrowing Advisory Committee

July 29, 2025

Charge Text:

In the May 2025 quarterly refunding statement, Treasury announced that it is evaluating a broad range of possible enhancements to the buyback program, such as: changes to maximum purchase amounts, buyback operation scheduling and frequency, security eligibility, maturity bucket composition, execution process, and counterparty eligibility. Please provide input on these or other possible enhancements to the buyback program.

What factors should Treasury consider in evaluating changes to maximum purchase amounts? Are there certain buyback sectors where either increases or decreases in purchase maximums are warranted? What changes to the buyback schedule, if any, should Treasury consider? Are there any other buyback enhancements not listed in the quarterly refunding statement that Treasury should consider?

Executive Summary

- **Treasury conducts two types of buyback operations**
  - **Cash management** buybacks are intended to reduce volatility in Treasury's cash balance and T-Bill issuance, minimize bill supply disruptions, and/or reduce borrowing costs over time
  - **Liquidity support** buybacks are intended to bolster market liquidity by establishing a regular and predictable opportunity for market participants to sell off-the-run Treasury securities
  - A TBAC charge in 1Q25 highlighted that buybacks are broadly achieving Treasury's stated objectives, with scope to evolve the program in line with these stated goals

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- **In the following pages, we review the Treasury market's overall functioning and the buyback program results to date, which help inform our recommendations**
  - We find that the broader Treasury market is functioning well but note an increase in primary dealer inventories over the last year and higher offer-to-max ratios in long-end buybacks this year

- **In evaluating potential changes to maximum purchase amounts, Treasury should consider the impact of liquidity buybacks on the WAM of marketable debt outstanding**
  - Given the stated intent to support market liquidity, broader metrics like WAM of marketable debt outstanding should be managed through Treasury's issuance decisions, not through the liquidity support buyback program
  - We demonstrate that Treasury can increase buyback sizes without materially altering the overall maturity composition of Treasury debt outstanding

- **We introduce a quantitative framework to identify sectors where either increases or decreases in purchase maximums could be considered** Currently, we find that the 10y-20y and 20y-30y sectors could be considered for larger buybacks
  - Treasury should remain flexible in the future when making changes to the program; this illustrative framework can be adapted or offer areas of further study as more data is collected
  - Treasury's cashflow projections may take priority in determining cash management buybacks, however a quantitative approach could be used to supplement the process. Since the cash management and liquidity support buybacks both occur in the 1m-2y sector, there is also value in evaluating results across operation types

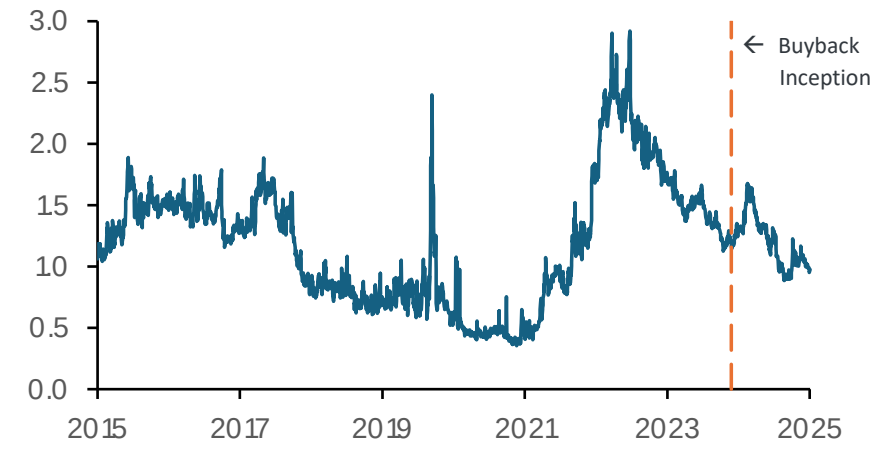
- We find that the program schedule, security exclusions and maturity bucket composition are appropriate. Offering the option to execute on swap vs. on-the-runs could minimize duration impacts at the time of operations but introduces curve risk and might not be the desired format for all participants. Yield-spread bidding could simplify the process for dealers. Broadening counterparty eligibility should improve results but introduces operational complexity for Treasury

- **In conclusion, we find that Treasury can be regular and predictable with guidance on buyback operations provided as part of the quarterly refunding while adopting a flexible approach to sizing and sector composition**

Various measures indicate that off-the-run functioning has improved since buyback program inception

- **Treasury market functioning has improved since 2023; this trend has continued since the inception of the buyback program in 2024**
- The dispersion of off-the-runs relative to a fitted Treasury curve peaked during the tightening cycle in 2023, but has been on a declining trend since then, and has continued lower since the buyback program began in May 2024 (see bottom left)
- At times, off-the-run Treasuries can trade at a discount to a similar maturity on-the-run, indicating a liquidity preference or premium for on-the-runs
  - This can be observed in the asset swap spread differential between the on-the-run and off-the-runs
  - For example, at the onset of the pandemic all off-the-run sectors traded at a steep discount to on-the-runs until the Fed began large scale QE in 2020 at which point off-the-runs traded rich until coupon issuance increased meaningfully in 2021
  - Off-the-runs were generally cheap during the beginning of the Fed's hiking cycle and more recently in aggregate spread differentials are narrow. However, performance at the sector level can be a consideration for buybacks which we discuss later in the presentation

RMSE of Treasury par curve (bp)



Source: Presenter's calculations

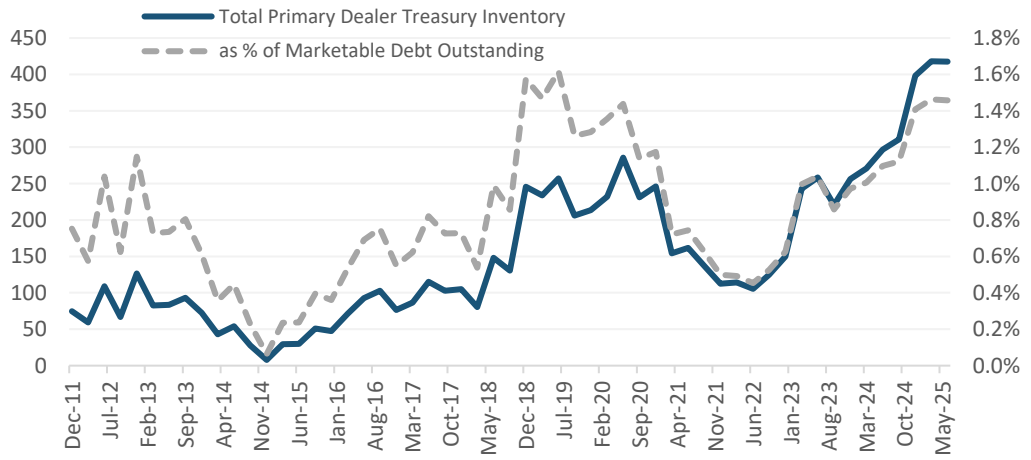
4x-old vs current UST Asset Swap Spread Differential* (bp)

Note: Positive spread indicates cheaper off-the-run UST
*Unweighted average of 2y, 3y,5y, 7y, 10y, 20y, & 30y

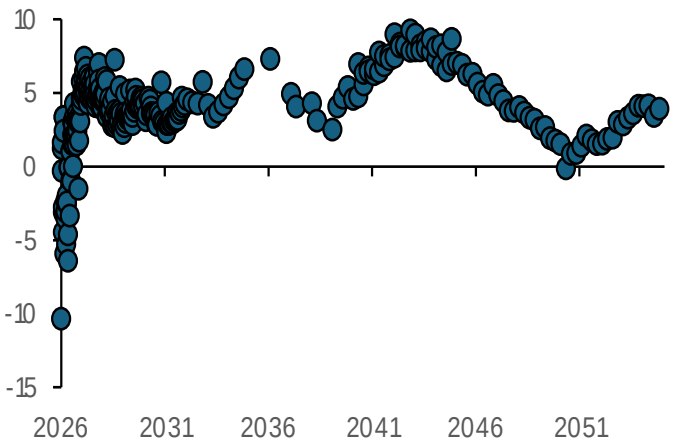
Primary dealer inventory has increased in the last year and Treasuries have cheapened vs. swaps

- Notwithstanding the broader backdrop of improved market functioning, primary dealer inventories continue to grow (bottom left) and Treasuries have cheapened vs. swaps this year, particularly in the short-end and 15y-20y sectors (bottom right)
- Primary dealer inventory in Treasuries has been steadily rising since QE ended in 2022. On a normalized basis, compared to the size of marketable debt outstanding, current dealer inventory is close to the all-time highs reached in 2019
  - In the last year, total Treasury inventory has grown **$93B or 31%** (2Q25 avg /2Q24 avg) with the <2y, 7y-11y and 11y-21y sectors having the largest percentage increases
- An increase in primary dealer inventories is not necessarily indicative of decreased market liquidity, as many factors can inform dealer balance sheet allocations; however, inventory trends and buyback operation details should be monitored, particularly as certain regulations like SLR are modified

Total Primary Dealer Treasury Inventory ($B)



6mo Change in UST Z-Spreads to SOFR (bps)



Note: Positive spread indicates cheaper UST vs. SOFR swaps
Source: Presenter's calculations

Treasury Inventory by Sector (qly avg, $B)

Quarter	Bills	FRN	TIPS	Nominals							Total
				<2y	2-3y	3-6y	6-7y	7-11y	11-21y	>21y	
2Q24	84	10	22	23	13	61	24	17	18	27	299
3Q24	80	10	22	24	13	72	22	27	26	34	329
4Q24	71	6	21	20	16	68	20	31	24	35	310
1Q25	82	7	23	59	19	82	27	31	26	44	400
2Q25	62	6	28	65	17	71	35	37	35	37	392
Δ 2Q24 to 2Q25	-21	-4	6	41	4	10	11	20	17	10	93
in %	*-26%*	*-38%*	*26%*	*176%*	*29%*	*17%*	*46%*	*115%*	*91%*	*36%*	*31%*

Source: Federal Reserve Bank of New York

Summary results for buybacks since May 2024

- We refresh an analysis of buyback results as shown in the 1Q25 TBAC charge to include operations through July 22, 2025
  - Offer-to-max ratios in the 1m-2y, 10y-20y, and 20y-30y sectors are elevated relative to other maturity buckets, while long-end ratios have also been increasing this year
  - Operations in the belly of the curve and TIPS continue to have lower fill ratios

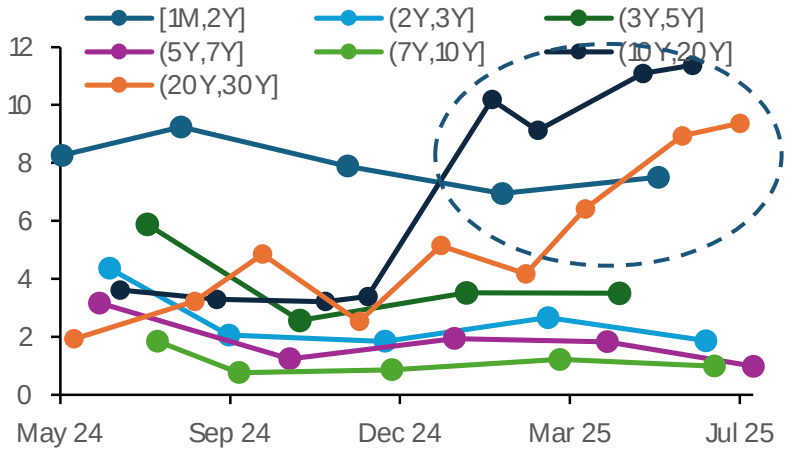
- On the subsequent pages we consider what factors Treasury should consider when evaluating changes to the maximum purchase amounts and provide a quantitative framework to help inform which sectors should be considered for increased or decreased buybacks

Cash Management and Liquidity Support Buyback Results (May 2024 – July 22, 2025)

Operation	Security Type	Bucket	Max to be Redeemed ($mn)	Offered ($mn)	Accepted ($mn, par)	% Filled	Offer-to-Max	Offer-to-Cover
Cash Management	Nominal Coupons	[1M,2Y]	122,000	339,827	112,668	92%	2.79	3.02
Liquidity Support	Nominal Coupons	[1M,2Y]	18,000	142,852	18,000	100%	7.94	7.94
		(2Y,3Y]	18,000	42,477	12,108	67%	2.36	3.51
		(3Y,5Y]	14,000	43,094	12,809	91%	3.08	3.36
		(5Y,7Y]	18,000	30,310	8,216	46%	1.68	3.69
		(7Y,10Y]	18,000	19,095	2,695	15%	1.06	7.09
		(10Y,20Y]	16,000	110,559	16,000	100%	6.91	6.91
		(20Y,30Y]	18,000	93,160	18,000	100%	5.18	5.18
	TIPS	[1Y,7.5Y]	4,500	23,677	3,756	83%	5.26	6.30
		(7.5Y,30Y]	4,000	10,616	2,615	65%	2.65	4.06

Source: U.S. Treasury Department

Liquidity Support Offer-to-Max Results (Nominal Coupons)



What factors should Treasury consider in evaluating changes to maximum purchase amounts?

- **In evaluating changes to maximum purchase amounts, Treasury should consider the impact that liquidity buybacks have to the WAM of marketable debt outstanding**
  - Given the stated intent to support market liquidity, broader metrics such as WAM of marketable debt outstanding should be managed through Treasury's issuance decisions and not through the liquidity support buyback program
- **Based upon scenario analysis, we find that Treasury can increase the current buyback program without materially altering the overall maturity composition of Treasury debt outstanding in the near term; consistent with its objective of supporting market liquidity, while managing WAM through issuance**
  - To demonstrate this, we explore the impact of hypothetical buyback programs (bottom left)
  - The annual standard deviation of the WAM of marketable debt outstanding is 2 months (bottom right)
  - On an annualized basis, the current program, if done in maximum size ($30B/qtr, ~9y WAM), shortens WAM by 0.4 months per year, well within the typical 1y change
  - The grey shaded area illustrates buyback program sizes with a WAM impact in excess of a typical 1 y change; programs of this size could warrant funding via coupon issuance instead of T-Bills
- **This indicates that Treasury has significant flexibility to adopt a more dynamic approach to sizing and sector composition without materially altering WAM; we introduce a quantitative lens to support this on the following pages**

Illustrative annual change in WAM (mos) of marketable Treasury debt outstanding based off scaling Buyback size and WAM*

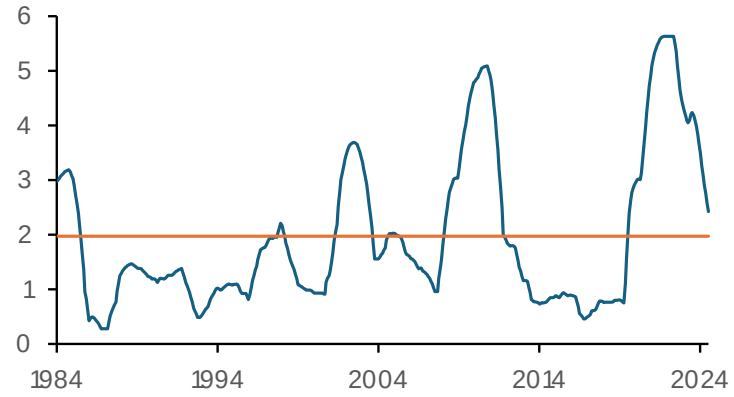
Larger Buyback Size ($B) →

Longer Buyback WAM ↓

Qly Buyback (Par, $B):		30	60	90	120	150
Ann. Buyback (Par, $B):		120	240	360	480	600
avg px:						
91	72	-0.3	-0.5	-0.8	-1.1	-1.3
87	108	-0.4	-0.8	-1.2	-1.6	-2.0
82	144	-0.5	-1.1	-1.6	-2.2	-2.7
79	180	-0.7	-1.4	-2.0	-2.7	-3.4
76	216	-0.8	-1.6	-2.5	-3.3	-4.1

Buyback WAM (mos)

3y standard deviation of annual changes in WAM (mos)



Source: Presenting member

*Assumes the *market value* of buybacks are funded with 3-month T-Bills and uses static $28.6T marketable debt outstanding as of 6/30/25 at a WAM of 72 months. Market value calculations assume average buyback prices ranging from $91 (72mos buyback WAM) to $76 (216mos buyback WAM) scaled using 2Q25 buyback purchase prices to reflect that longer tenor buyback operations would likely involve purchases of more discount bonds and thus require less T-Bill issuance per billion par bought back. Realized WAM impacts could be smaller if operations are not fully filled at maximums.

Are there certain buyback sectors where either increases or decreases in purchase maximums are warranted?

- **We believe there is value in consistently applying a quantitative framework to evaluate which sectors warrant more or less liquidity support from buybacks**

- **We think several of the market factors discussed in prior pages provide Treasury with valuable information on how to size buyback operations across the nominal and TIPS curves**
  1. **Buyback operation offer-to-max ratios derived from Treasury data,** offer insight into the level of demand for a given operation. A higher offer-to-max ratio in a particular sector underscores strong demand to sell into an operation, and consistently high offer-to-max ratios may give Treasury reason to increase sizes in a given maturity sector

  2. **Measures of dispersion relative to a fitted Treasury spline curve** (RMSE) offer insight into whether off-the-runs in a given sector are trading efficiently. Low dispersion is indicative of normal liquidity conditions while rising dispersion argues for increasing operation sizes in a sector

  3. **Liquidity preference is observed via matched-maturity asset swap spreads between near off-the-run Treasuries and their on-the-run counterparts in a given tenor**. On-the-runs traditionally trade with a premium relative to near-off-the-runs due to higher trading volumes and financing demand, but a growing discount in off-the-runs could indicate a deterioration in functioning in off the runs, as observed in 2020 and 2022

  - **Importantly, other variables may need to be added over time to enhance the quantitative framework.** Primary dealer positioning might offer insight into dealer intermediation trends but would offer more value if it could be supplemented with a balance sheet capacity measure. Operation price dispersion statistics could also offer areas for study, for example elevated offer-to-max and primary dealer inventory with narrow price dispersion might suggest a sector warrants larger buybacks. In addition, while the quantitative framework we lay out on the next page does not directly consider the percentage of an operation that goes unfilled, this statistic provides useful information value to supplement the framework

- **We develop a "buyback score" to illustrate which sectors may benefit from larger buyback operations.** The buyback score is the equal-weighted average of the 1-year z-score of each of these three measures; a higher score would indicate consideration for larger buybacks and vice versa
  - Sectors in which we observe increased yield dispersion, larger off-the-run discounts and higher offer-to-max ratios could benefit from increased buybacks; we apply this approach on the next page

A quantitative framework can identify trends at a sector level that are relevant for the sizing of buyback operations

- **Using this stylized "buyback score" and its components we highlight the following takeaways**
  - **In the 10y-20y sector**, offer-to-max ratios have been consistently elevated since fall 2024 and near off-the-runs have cheapened relative to on-the-runs
  - **In the 20y-30y sector**, offer-to-max ratios are elevated
  - **In the 7.5y-30y TIPS sector,** off-the-run TIPS have cheapened recently and the offer-to-max, while low on an outright basis, has increased recently
  - **In the 1m-2y sector,** the buyback-offer to max is consistently high
  - **In the 2y-3y and 7y-10y sector**, offer-to-max ratios are low while off-the-runs have richened. These sectors also have a higher unfilled rate

- **Treasury should remain flexible in the future when making changes to the program as conditions are likely to change over time**
  - This approach could be adapted to include other measures or a different weighting mechanism and offers area for study over time as more data is collected
  - While the z-score itself can be helpful for identifying recent changes, the underlying level of the component also matters

Stylized buyback scores for Treasury buyback sectors

	Tenor	Buyback offer to max*		RMSE (bp)**		Off-the-run discount (bp)†		Buyback score
		Current	1y z-score	Current	1y z-score	Current	1y z-score	
Nominal coupons	1m-2y	7.5	-0.5	11	-12	-2.0	-2.4	-14
	2y-3y	19	-0.7	0.7	-2.3	-2.3	-18	-16
	3y-5y	3.5	0.8	0.9	-0.6	-0.6	-13	-0.4
	5y-7y	18	-0.2	13	-0.6	-0.5	-15	-0.8
	7y-10y	10	-0.3	12	-15	-2.3	-2.3	-14
	10y-20y	11.4	12	12	-0.4	0.4	13	0.7
	20y-30y	9.4	16	13	0.3	0.8	0.1	0.6
TIPS	1y-7.5y	5.8	0.2	2.1	-10	-3.0	-0.1	-0.3
	7.5y-30y	4.0	13	2.7	0.0	-0.6	19	10

Simple average of the 3 z-scores for each sector

* Most recent operation offer-to-max ratio
** RMSE for nominal Treasury and TIPS spline fitted curves, by sector, 1wk moving average
† For nominal Treasuries, defined as 4x-old/current asset swap spread differential for hot run point. For TIPS, defined as 2x-old/current IOTA differential (based on z-spreads of TIPS and the nominal comparator), 1wk moving average

Source: Federal Reserve Bank of New York, Presenter's calculations

Liquidity Support Buyback Recommendation

- Informed by insights from the quantitative framework on the previous page, **we recommend increasing liquidity support buybacks in the 10y-20y and 20y-30y sectors**
  - Increase 10y-20y purchases from $4B to $8B given the sector's increasing offer-to-max ratios and recent cheapening in off-the-runs
  - Increase 20y-30y purchases from $4B to $6B given the overall high level of the sector's offer-to-max ratios
  - We believe these increases are a reasonable initial implementation of a more flexible approach to sizing buybacks with limited additional impacts to the WAM of overall marketable debt outstanding [1]

- **Sectors that bear monitoring are**
  - **TIPS 7.5y-30y sector** where the buyback score is elevated suggesting potential for larger buybacks, however we note that operations have been unfilled
  - **1m-2y sector** where offer-to-max ratios are consistently elevated. Looking ahead, the debt ceiling-driven surge in T-bill issuance may support larger operations in the 1m-2y sector in future quarters as short-end investors switch from short coupons back into T-bills
  - **2y-3y and 7y-10y sector** performance should be monitored for possible decreases

- **We acknowledge that with more data in hand on how operation sizes interact with buyback scores and offer-to-max ratios, future increases or decreases could be either smaller or larger**

1. Using the methodology from page 6: The max program size would increase to $36B/qtr (~10.5y WAM) and on an annualized basis incrementally shorten the WAM of Treasury debt outstanding by -0.2 months per year compared to the current max $30B program. Realized WAM impacts could be smaller if operations are not filled at max.

A similar approach can support Cash Management buybacks, though we recognize this program has different motivations

- **Cash management buybacks serve a different purpose**: to reduce volatility in Treasury's cash balance and T-Bill issuance, minimize bill supply disruptions, and/or reduce borrowing costs over time
  - A quantitative approach may be of secondary importance relative to Treasury's cashflow projections in the weeks around known tax deadlines
  - However, Treasury could monitor buyback offer-to-max ratios, RMSE, primary dealer inventory positions, and matched-maturity coupon/T-bill spreads to inform the tradeoffs between T-Bill issuance and cash management buybacks (illustrative example bottom left)
  - When T-bills richen relative to similar maturity coupons, it may be advantageous to increase the size of cash management buyback operations
- **Since cash management buybacks and liquidity buybacks both operate in the 1m-2y sector, their relative sizing and collective results can be informative**
  - We see evidence of a linear relationship between operation sizes in the 1m-2y sector and offer-to-max ratios looking at both types of buyback operations (see bottom right)
  - Looking ahead, during the post debt ceiling TGA rebuild, there might be less need for cash management buybacks
  - This could drive greater interest in liquidity support buybacks in the 1m-2y sector given the growth in dealer inventories. Larger liquidity support buybacks in the 1m-2y may be warranted if cash management buybacks are reduced

Stylized buyback scores for 1m-2y sector Cash Management Buybacks

	Buyback offer to max		RMSE (bp)*		PD positions ($bn)**		Bill/Cpn spread		
Buyback type	Current	1y z-score	Current	1y z-score	Current	1y z-score	Current	1y z-score	Buyback score
Cash management	1.8	-1.0	1.2	-1.0	93.5	2.1	13	-1	-0.3

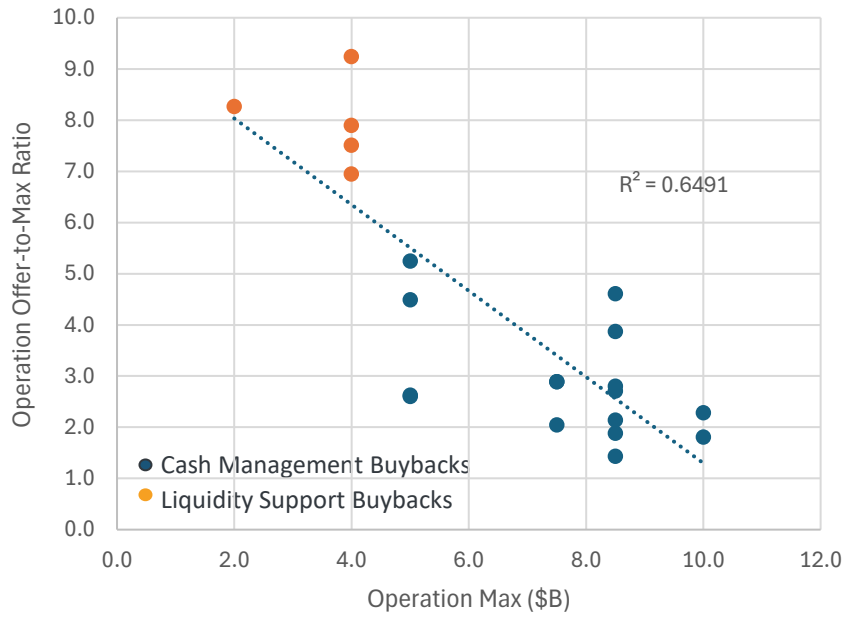
* RMSE for nominal Treasury fitted curve
** See table on right hand side of slide
Source: Federal Reserve Bank of New York, Presenter's calculations

Matched maturity T-bill/Coupon spreads (bp)

Maturity	Last	1y max	1y min	1y avg	1y z-score
1m	-0.7	67.6	-23.7	2.7	-0.3
2m	38.8	40.2	-9.7	7.5	3.9
3m	21.0	26.9	-4.8	4.8	2.9
4m	3.7	18.2	-6.6	4.6	-0.2
6m	10.2	20.6	-5.1	4.1	1.1
12m	2.9	10.6	-5.8	1.0	0.6
Unweighted avg	13	31	-9	4	-1

Bond equivalent yield/yield spread; Positive / (Negative) spread indicates Bills are cheap / (rich) vs. short coupons

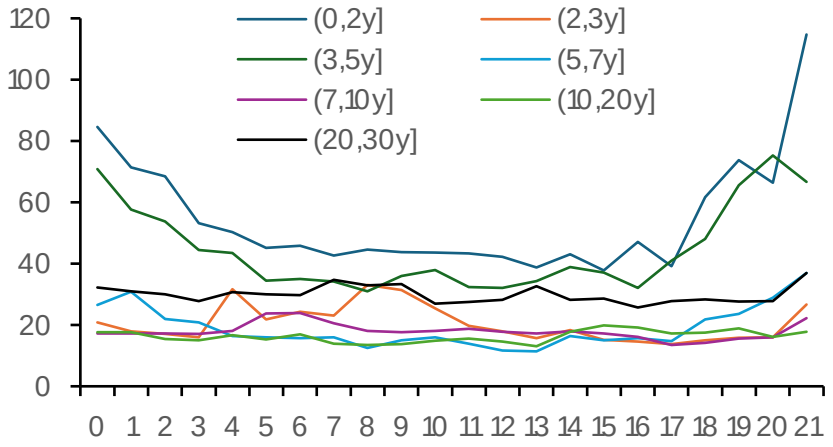
1m-2y Buyback Operations (Max vs. Offer-to-Max)



What changes to the buyback schedule, if any, should Treasury consider?

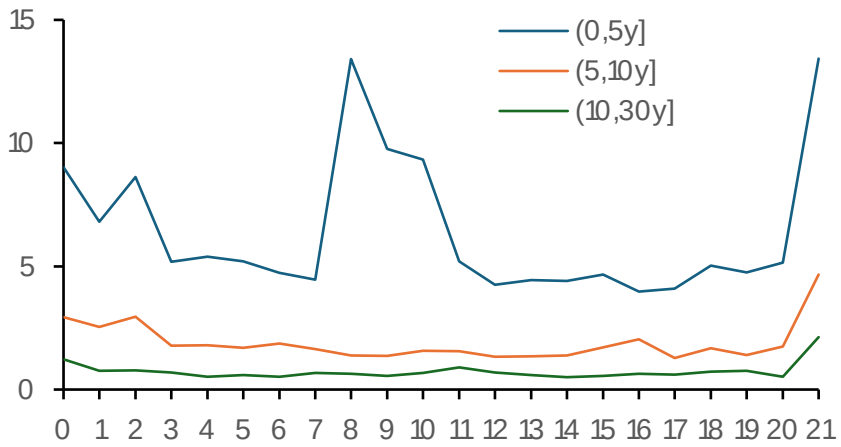
- Under the current schedule, operations are typically during the middle of the week and avoid FOMC dates and same sector Treasury auction conflicts
- **In an ideal world, Treasury could increase the frequency of buyback operations if the overall size of the buyback program grows, but there are operational and logistical obstacles to this:**
  - Treasury auctions, FOMC meetings, lower liquidity on Mondays/Fridays, intra-month cyclicality by sector, ability to perform 2 operations in a day, timing in the afternoon to avoid economic data releases, and security exclusions near coupon payment dates
  - **Acknowledging these constraints, we find that the current schedule is considered and appropriate.** Aligning buybacks with periods of higher activity could provide better execution. However, doing so could be challenging given possible conflicts with security exclusions around coupon payment dates, while the market might benefit from additional liquidity provisioning at other points in the month
- **Nonetheless, Treasury market volumes exhibit intra-month cyclicality demonstrating an elevated demand for liquidity at month-end and around auctions:**
  - Higher volumes are concentrated at month-end for the 0y-2y, 3y-5y, 5y-7y, and 10y-20y sectors
  - Higher volumes are concentrated either mid-month or at month-end for 2y-3y, 7y-10y and 20y-30y sectors
  - TIPS demonstrate a similar pattern, although trading volumes in the 0y-5y bucket are also elevated around the CPI data release

Nominal off-the-run trading volume cyclicals* ($B)



Source: TRACE
*Average daily trading volumes by business day of month. Data since 5/28/24

TIPS off-the-run trading volume cyclicals* ($B)



Source: TRACE
*Average daily trading volumes by business day of month. Data since 5/28/24

Other Considerations: Security Eligibility, Execution Process, Counterparty Eligibility, Bucket Composition

Execution process:

- Prior analysis in the 1Q25 buyback charge showed Treasury generally bought bonds that are cheap to a fitted curve. Anecdotes suggest that Treasury benefits from good execution relative to prevailing market prices, particularly in those sectors where primary dealer inventory is more elevated and interest in the operation is generally higher
- While the current execution process with a fixed offer price does introduce risk in the event of increased volatility around a buyback operation, Treasury has structured these operations at more liquid points within the week and trading day, minimizing those risks
- Larger operations would translate to increased duration risk per operation, which could result in greater variability in results, particularly if volatility increases. Recall that the 7y-10y operation in July 2024 went uncovered due to a sharp rise in yields ahead of the operation close
- **With this in mind, we think Treasury could consider yield spread bidding**, where participants lock an offer yield spread to the nearest on-the-run. This would greatly simplify the process for the dealers by removing the potential need to update offer prices on many CUSIPs into the operation close; only the on-the-run reference UST is updated. However, doing so could complicate Treasury's process to calculate the implied all-in off-the-run price offers
- **While Treasury could consider moving to a duration neutral switch-type model this would introduce significant curve risk in buckets that have wider maturity distributions.** The end user of the operation might prefer to hedge with another instrument (for example, futures or swaps) or not hedge and therefore find it less desirable to execute on switch. One option would be to provide flexibility for participants to submit offers either outright or on switch

Counterparty eligibility:

- **Benefits**: broadening eligibility could increase the number of offers into the buyback operation, expand the pool of participants and potentially improve results. An open access framework similar to Treasury auctions can provide execution capabilities and anonymity directly to the end user. At the same time, open access would broaden Treasury's insights into the behavior of various market participants
- **Challenges**: increased complexity by providing expanded access to FedTrade and/or creation of an additional platform, along with clearing and settling trades with a larger set of counterparties
- Implementation of Treasury clearing may change these tradeoffs

Security eligibility and maturity bucket composition are appropriate (see next page)

Current buyback security eligibility framework and bucket composition is well suited for the current buyback program

- **We think the current framework for security eligibility is appropriate**
  - Treasury's approach to CUSIP eligibility in a given buyback operation is a refined version of the framework the Fed used to conduct Permanent Open Market Operations. The current framework excludes securities which trade with a premium or which pose an operational risk for settlement
- **We think current maturity bucket compositions are well designed and do not recommend any changes.** Each bucket is comprised of securities hedged by the appropriate on-the-run and is consistent with how market makers and investors trade off-the-run securities

Current buyback operation security exclusion list

Operation Type	Exclusion Name	Description of Exclusion Rule
Liquidity Support & Cash Management	On-the-Runs and Near On-the-Runs	Recently issued securities that are not past their first coupon payment date.
	Securities Close to Coupon Payment Date	Securities that have coupon payment dates that fall within two business days prior to, or on, a buyback operation settlement date.
	CTD and Near CTD Securities	Treasury securities that are reasonably likely to be the cheapest-to-deliver for a futures contract.
	Repo Specials	Treasury securities that are trading significantly special in repurchase agreement markets or are otherwise in exceptional demand compared with similar issues.
	Purchase Limits	Free float > $10billion par for nominal coupon securities and $5billion par for TIPS. SOMA holdings will not exceed 70% of outstanding par amount after the buyback operation is settled. The purchase minimum for any single security in any buyback operation is at least $10million par.
	Exceptional Situations	Treasury may decline to buy back securities that are in high demand.
Cash Management	Rich to Treasury Bills	Coupon securities that are trading at a significantly lower yield than Treasury bills with similar maturities.
	Maturing Near Tax Payment Dates	Coupon securities that mature around quarterly tax payment dates or the April tax season.

Appendix: Cash Management Buyback History

- **Cash management buybacks** are intended to reduce volatility in Treasury's cash balance and T-Bill issuance, minimize bill supply disruptions, and/or reduce borrowing costs over time
  - 16 operations to date (through 7/22/2025) focused around individual and corporate tax dates (March/April, June, Sept, Dec) focused in the 1mo-2y sector

Operation	Security Type	Bucket	Date	Issues (count)	Accepted (count)	Max to be Redeemed ($mn)	Offered ($mn)	Accepted ($mn, par)	Accepted ($mn, market value)	% Count Accepted	% Filled	Offer-to-Max	Offer-to-Cover
Cash Management	Nominal Coupons	[1M,2Y]	06/10/2025	40	18	10,000	18,108	10,000	9,763	45%	100%	1.81	1.81
			06/03/2025	40	22	10,000	22,870	10,000	9,843	55%	100%	2.29	2.29
			04/23/2025	38	16	8,500	12,169	2,939	2,926	42%	35%	1.43	4.14
			04/16/2025	40	29	8,500	16,028	8,500	8,398	73%	100%	1.89	1.89
			04/10/2025	43	24	8,500	18,168	8,500	8,428	56%	100%	2.14	2.14
			04/03/2025	38	20	8,500	23,822	8,500	8,402	53%	100%	2.80	2.80
			03/27/2025	39	16	8,500	23,024	8,500	8,380	41%	100%	2.71	2.71
			03/20/2025	43	21	8,500	32,909	8,500	8,442	49%	100%	3.87	3.87
			03/12/2025	44	19	8,500	39,170	8,500	8,376	43%	100%	4.61	4.61
			12/19/2024	47	14	7,500	15,339	3,729	3,583	30%	50%	2.05	4.11
			12/10/2024	49	19	7,500	21,684	7,500	7,304	39%	100%	2.89	2.89
			12/04/2024	49	20	7,500	21,683	7,500	7,370	41%	100%	2.89	2.89
			09/25/2024	37	19	5,000	13,006	5,000	4,956	51%	100%	2.60	2.60
			09/19/2024	41	9	5,000	26,237	5,000	5,003	22%	100%	5.25	5.25
			09/12/2024	39	3	5,000	22,460	5,000	4,939	8%	100%	4.49	4.49
			09/05/2024	35	18	5,000	13,150	5,000	4,813	51%	100%	2.63	2.63

Treasury Cash Management Buyback WAM by Quarter

Quarter	Par Amt Accepted ($B)	Market Value Accepted ($B)	WAM (mos)
3Q24	20.0	19.7	12
4Q24	18.7	18.3	12
1Q25	25.5	25.2	12
2Q25	48.4	47.8	13
Total	**112.7**	**110.9**	

Appendix: Liquidity Support Buyback History

- **Liquidity support buybacks** are intended to bolster market liquidity by establishing a regular and predictable opportunity for market participants to sell off-the-run Treasury securities
  - 58 operations to date (through 7/22/2025), schedule announced quarterly, each sector bucket typically purchased one to two times a quarter
  - Sectors: 1m-2y, 2y-3y, 3y-5y, 5y-7y, 7y-10y, 10y-20y, 20y-30y, TIPS 1y – 7.5y, TIPS 7.5y – 30y

Security Type	Bucket	Date	Issues (count)	Accepted (count)	Max to be Redeemed ($mn)	Offered ($mn)	Accepted ($mn, par)	Accepted ($mn, market value)	% Count Accepted	% Filled	Offer-to-Max	Offer-to-Cover
Nominal Coupons	[1M,2Y]	05/15/2025	60	6	4,000	30,022	4,000	3,914	10%	100%	7.51	7.51
		02/12/2025	64	10	4,000	27,780	4,000	3,957	16%	100%	6.95	6.95
		11/13/2024	57	5	4,000	31,571	4,000	3,934	9%	100%	7.89	7.89
		08/07/2024	66	16	4,000	36,955	4,000	3,913	24%	100%	9.24	9.24
		05/29/2024	20	9	2,000	16,524	2,000	1,890	45%	100%	8.26	8.26
	(2Y,3Y]	06/12/2025	32	12	4,000	7,475	1,546	1,468	38%	39%	1.87	4.84
		03/11/2025	32	14	4,000	10,665	4,000	3,846	44%	100%	2.67	2.67
		12/05/2024	31	13	4,000	7,370	2,267	2,184	42%	57%	1.84	3.25
		09/04/2024	31	6	4,000	8,244	2,295	2,185	19%	57%	2.06	3.59
		06/26/2024	20	7	2,000	8,723	2,000	1,879	35%	100%	4.36	4.36
	(3Y,5Y]	04/22/2025	49	12	4,000	14,012	4,000	3,924	24%	100%	3.50	3.50
		01/22/2025	49	17	4,000	14,065	4,000	3,749	35%	100%	3.52	3.52
		10/16/2024	49	21	4,000	10,257	4,000	3,767	43%	100%	2.56	2.56
		07/18/2024	20	8	2,000	4,760	809	759	40%	40%	2.38	5.88
	(5Y,7Y]	07/10/2025	26	11	4,000	3,924	1,250	1,193	42%	31%	0.98	3.14
		04/15/2025	26	3	4,000	7,316	443	395	12%	11%	1.83	16.51
		01/15/2025	25	13	4,000	7,768	2,190	2,081	52%	55%	1.94	3.55
		10/10/2024	26	13	4,000	4,963	2,469	2,314	50%	50%	1.24	2.01
		06/20/2024	20	14	2,000	6,339	1,864	1,700	70%	93%	3.17	3.40
	(7Y,10Y]	06/17/2025	10	4	4,000	3,964	1,066	990	40%	27%	0.99	3.72
		03/18/2025	10	4	4,000	4,899	985	952	40%	25%	1.22	4.97
		12/09/2024	10	3	4,000	3,459	195	173	30%	5%	0.86	17.74
		09/10/2024	10	5	4,000	3,067	449	409	50%	11%	0.77	6.83
		07/24/2024	10	0	2,000	3,706	-	-	0%	0%	1.85	0.00
	(10Y,20Y]	06/04/2025	31	1	2,000	22,738	2,000	1,307	3%	100%	11.37	11.37
		05/06/2025	29	4	2,000	22,181	2,000	1,430	14%	100%	11.09	11.09
		03/05/2025	29	1	2,000	18,239	2,000	1,349	3%	100%	9.12	9.12
		02/06/2025	28	4	2,000	20,363	2,000	1,453	14%	100%	10.18	10.18
		11/25/2024	28	5	2,000	6,780	2,000	1,459	18%	100%	3.39	3.39
		10/31/2024	26	12	2,000	6,432	2,000	1,507	46%	100%	3.22	3.22
		08/28/2024	25	8	2,000	6,591	2,000	1,489	32%	100%	3.30	3.30
		07/02/2024	20	12	2,000	7,235	2,000	1,453	60%	100%	3.62	3.62
	(20Y,30Y]	07/02/2025	36	10	2,000	18,738	2,000	1,430	28%	100%	9.37	9.37
		05/29/2025	35	3	2,000	17,869	2,000	1,467	9%	100%	8.93	8.93
		04/02/2025	35	7	2,000	12,832	2,000	1,351	20%	100%	6.42	6.42
		02/26/2025	35	14	2,000	8,350	2,000	1,466	40%	100%	4.18	4.18
		01/07/2025	36	4	2,000	10,301	2,000	1,392	11%	100%	5.15	5.15
		11/20/2024	34	14	2,000	5,065	2,000	1,442	41%	100%	2.53	2.53
		09/24/2024	35	13	2,000	9,702	2,000	1,546	37%	100%	4.85	4.85
		08/15/2024	34	9	2,000	6,452	2,000	1,614	26%	100%	3.23	3.23
		06/05/2024	20	20	2,000	3,851	2,000	1,540	100%	100%	1.93	1.93

Security Type	Bucket	Date	Issues (count)	Accepted (count)	Max to be Redeemed ($mn)	Offered ($mn)	Accepted ($mn, par)	Accepted ($mn, market value)	% Count Accepted	% Filled	Offer-to-Max	Offer-to-Cover
TIPS	[1Y,7.5Y]	07/16/2025	25	6	500	2,526	500	474	24%	100%	5.05	5.05
		05/21/2025	25	9	500	2,885	500	482	36%	100%	5.77	5.77
		04/08/2025	25	6	500	3,245	500	473	24%	100%	6.49	6.49
		02/20/2025	25	8	500	4,026	500	477	32%	100%	8.05	8.05
		01/09/2025	26	8	500	2,478	500	453	31%	100%	4.96	4.96
		11/06/2024	26	6	500	847	170	160	23%	34%	1.69	4.98
		10/02/2024	26	7	500	1,384	235	247	27%	47%	2.77	5.89
		08/21/2024	26	8	500	2,281	351	333	31%	70%	4.56	6.50
		06/11/2024	20	5	500	4,005	500	484	25%	100%	8.01	8.01
	(7.5Y,30Y]	06/25/2025	19	8	500	2,005	500	380	42%	100%	4.01	4.01
		05/01/2025	19	8	500	887	179	151	42%	36%	1.77	4.96
		03/26/2025	19	8	500	2,028	407	274	42%	81%	4.06	4.98
		01/28/2025	17	10	500	1,616	500	395	59%	100%	3.23	3.23
		12/17/2024	18	11	500	1,494	500	426	61%	100%	2.99	2.99
		10/23/2024	18	12	500	977	323	272	67%	65%	1.95	3.02
		09/17/2024	18	9	500	881	153	138	50%	31%	1.76	5.76
		07/10/2024	14	5	500	728	53	42	36%	11%	1.46	13.74

Treasury Liquidity Support Buyback WAM by Quarter

Quarter	Par Amt Accepted ($B)	Market Value Accepted ($B)	WAM (mos)
2Q24	8.4	7.5	102
3Q24	16.1	13.9	136
4Q24	20.2	17.9	100
1Q25	25.1	21.8	107
2Q25	20.7	17.7	120
3Q25*	3.8	3.1	173
Total	**94.2**	**81.9**	

* 3Q25 to date through 7/22/25

Source: U.S. Treasury Department, Presenter's calculations