Treasury Presentation to TBAC

Office of Debt Management

Fiscal Year 2026 Q2 Report

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*All sources are from Treasury unless otherwise specified

Section I:
Executive Summary

Highlights of Treasury's May 2026 Quarterly Refunding Presentation to the Treasury Borrowing Advisory Committee (TBAC)

Receipts and Outlays through Q2 FY2026

	$ billion	Change from same period last year ($ billion)	Change from same period last year (%)	As % of GDP	Change from same period last year (% GDP)
Total Receipts thru Q2 FY2026	$2,483	+$222	10%	15.5%	0.6%
Total Outlays thru Q2 FY2026	$3,651	+$84	2%	22.8%	-0.7%

Treasury's Projected Privately-held Net Marketable Borrowing for the Current and Next Fiscal Quarters

Treasury OFP Near Term Fiscal Projections	Privately-Held Net Marketable Borrowing ($ billion)	Assumed End-of-Quarter Cash Balance ($ billion)
Q3 FY2026	$189	$900 (Jun)
Q4 FY2026	$671	$950 (Sep)

*Projected Privately-held Net Marketable Borrowing for the Next Three Fiscal Years from Various Sources**

Fiscal Year	Primary Dealers, Median, April 2026 ($billion)	CBO Estimates, February 2026 ($billion)
2026	$2,041	$1,987
2027	$2,100	$1,910
2028	$2,150	$2,088

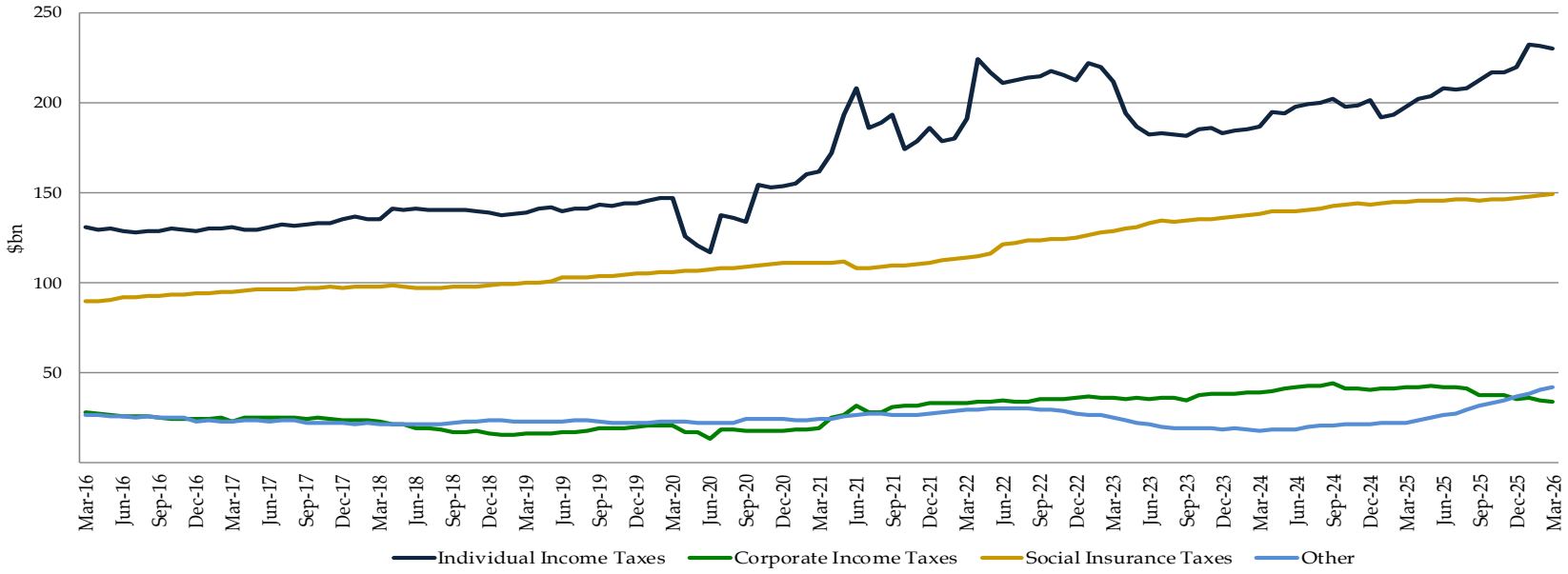
*All privately-held net marketable borrowing estimates are "normalized" with details from page 18. Uncertainty regarding future funding needs remains relatively high, reflecting a variety of views on the path of monetary policy and the outlook for the economy.

Latest Market Expectations for Treasury Financing in April 2026

- All primary dealers expected no changes to nominal coupon, TIPS, or FRN issuance sizes at the May refunding.

Section II:
Recent Fiscal Results
Receipts, Outlays, and Deficits

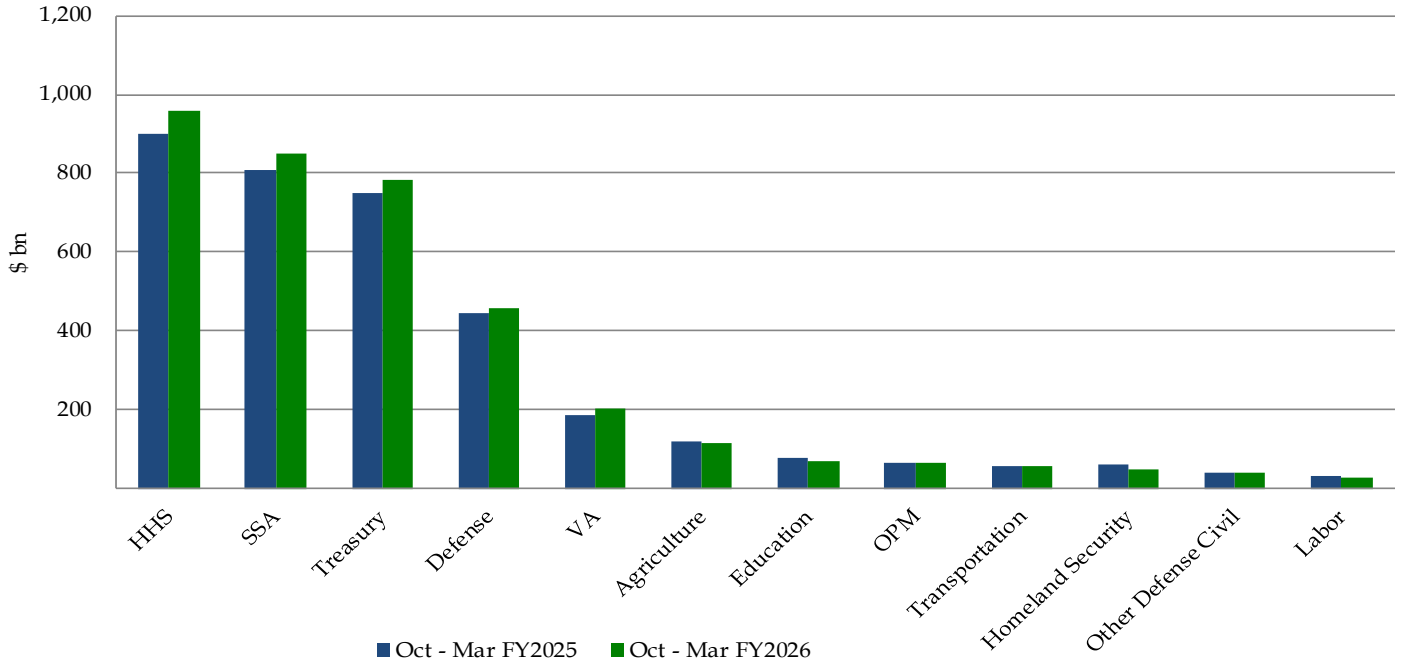
Monthly Receipt Levels
(12-Month Moving Average)



Notable Receipts Category	YoY change thru Q2 FY 2026 ($ billion)	YoY change thru Q2 FY 2026 (%)	Comments
Customs Deposits	+$128	+272%	Increased due to higher tariff receipts.
Withheld and FICA Taxes	+$80	+4%	Increased due to wage and employment growth.
Non-Withheld and SECA Taxes	+$78	+27%	This FYTD contained extended due dates for Los Angeles due to county wildfires.
Gross Corporate Taxes	-$33	-18%	Decreased due to legislative provision changes from the One Big Beautiful Bill.
Individual Refunds (-)	+$15	+9%	One Big Beautiful Bill provisions have led to increases in refunds this season.

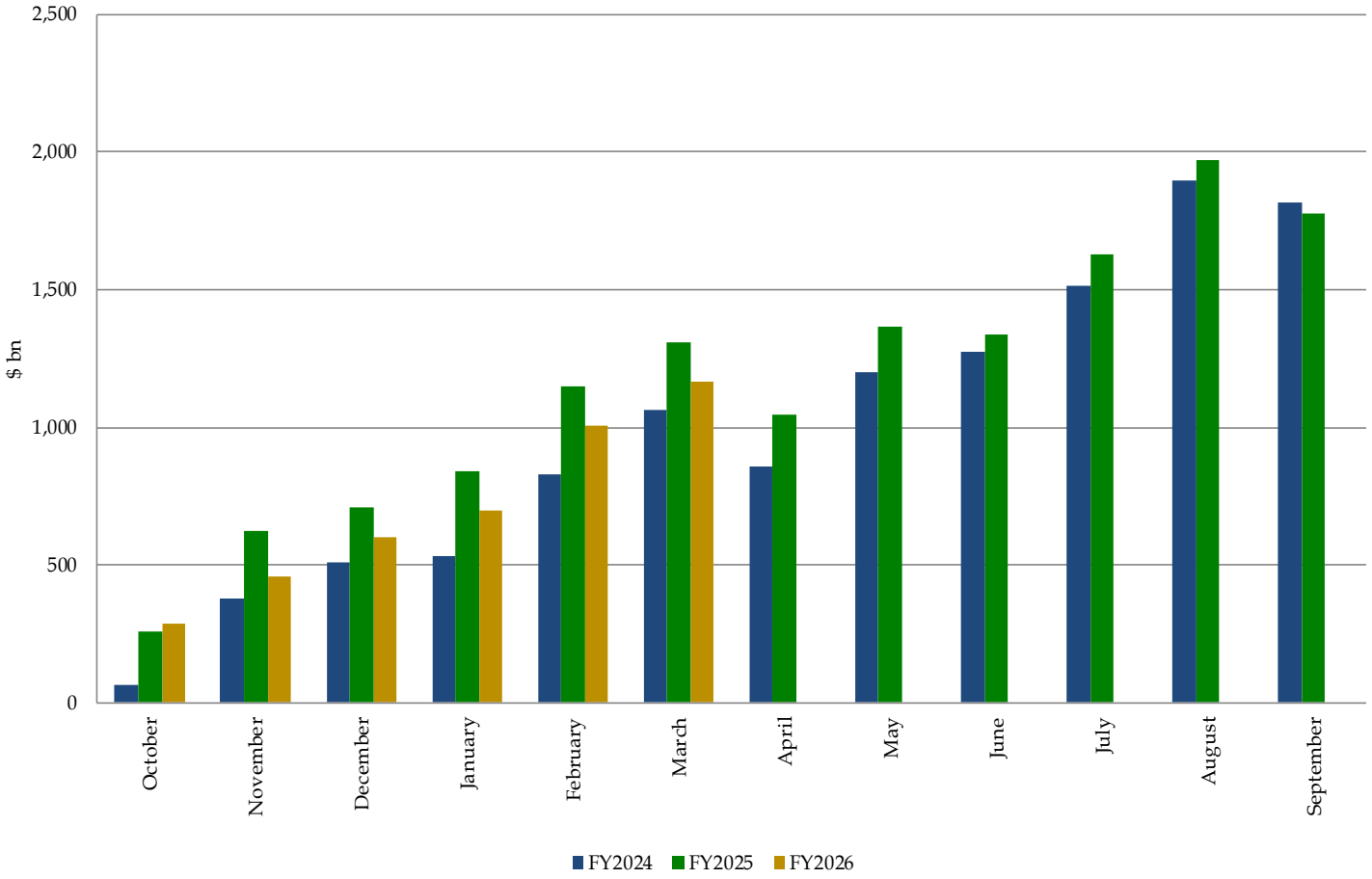
Individual Income Taxes include withheld and non-withheld. Social Insurance Taxes include FICA, SECA, RRTA, UTF deposits, FUTA and RUIA. Other includes excise taxes, estate and gift taxes, customs duties and miscellaneous receipts.

Largest Outlays



Notable Outlay Category	YoY change thru Q2 FY 2026 ($ billion)	YoY change thru Q2 FY 2026 (%)	Comments
Health and Human Services	+$59	+7%	Increased due to Medicare and Medicaid spending.
Social Security Administration	+$43	+5%	Higher due to implementation of the Social Security Fairness Act, increases from cost-of-living adjustments (COLA), and increased number of beneficiaries.
Department of Treasury	+$34	+5%	Increased due to higher gross interest on the public debt.
Department of Veterans Affairs	+$16	+9%	Higher due to compensation and pension as well as increased spending per person and use of health care facilities.
Military Programs	+$15	+3%	Increased due to military personnel and research and development.
Other	-$84	-17%	Decreased primarily due to lower EPA disbursements, lower FEMA payments, and lower Education outlays.

Cumulative Budget Deficits by Fiscal Year



Section III:
Various Fiscal Forecasts

Primary Dealers, OMB, CBO

Recent Economic Forecasts

Primary Dealer Median Estimates April 2026

	CY2026	CY2027	CY2028
	% Change from Q4 to Q4		
GDP			
Real	2.1	2.1	2.1
Nominal	5.3	4.4	4.3
Inflation			
CPI Headline	3.2	2.3	2.3
CPI Core	2.8	2.5	2.2
	Fourth Quarter Levels		
Unemployment Rate (%)	4.4	4.3	4.2
	FY2026	**FY2027**	**FY2028**
Deficits ($bil)	$1,950	$2,018	$2,100

CBO Estimates February 2026

	CY2026	CY2027	CY2028
	% Change from Q4 to Q4		
GDP			
Real	2.2	1.8	1.8
Nominal	4.8	4.1	3.9
Inflation			
CPI Headline	2.8	2.4	2.3
	Fourth Quarter Levels		
Unemployment Rate (%)	4.6	4.5	4.4
	FY2026	**FY2027**	**FY2028**
Deficits ($bil)	$1,853	$1,887	$2,080

OMB Estimates April 2026

	CY2026	CY2027	CY2028
	% Change Year over Year		
GDP			
Real	3.5	3.1	3.1
Nominal	5.7	5.2	5.2
Inflation			
CPI Headline	2.3	2.3	2.2
	Fourth Quarter Levels		
Unemployment Rate (%)	3.7	3.7	3.7
	FY2026	**FY2027**	**FY2028**
Deficits ($bil)	$2,065	$2,172	$2,157

- Note: OMB's economic assumptions are from Table 1-1 of "Budget of the U.S. Government Analytical Perspectives Fiscal Year 2027," April 2026.
- CBO's economic assumptions are from Table 2-1 of "The Budget and Economic Outlook: 2026 to 2036," February 2026.

Recent Deficit Forecasts

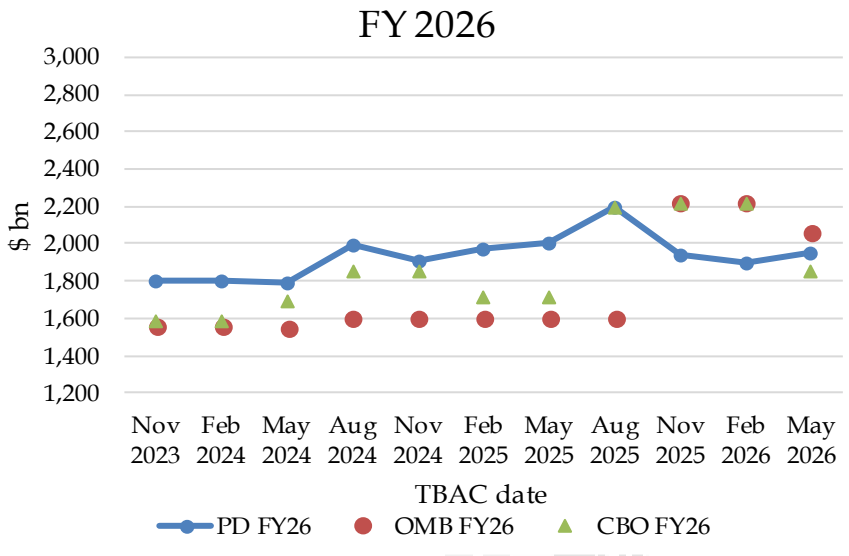
Primary dealers' median deficit estimates in April 2026 were higher relative to estimates they provided in January 2026, increasing by $58 billion in aggregate over the FY26-FY28 period.

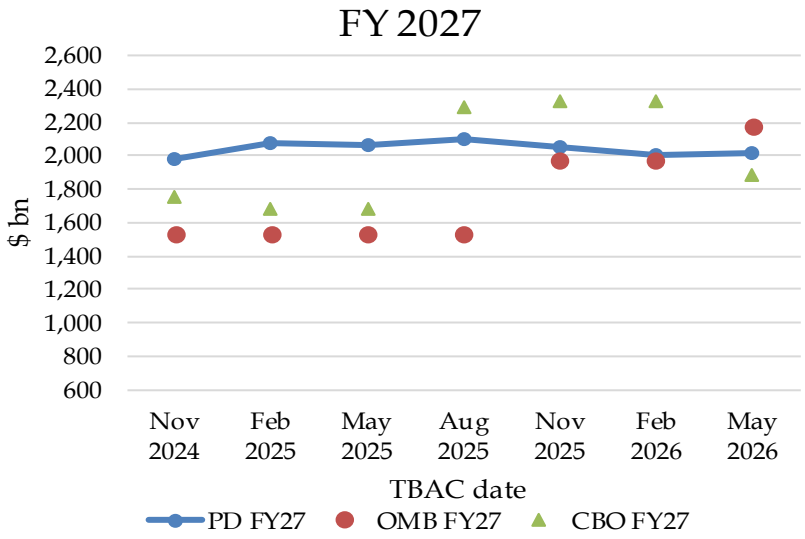
- The latest OMB and CBO estimates in the table below are provided for reference.

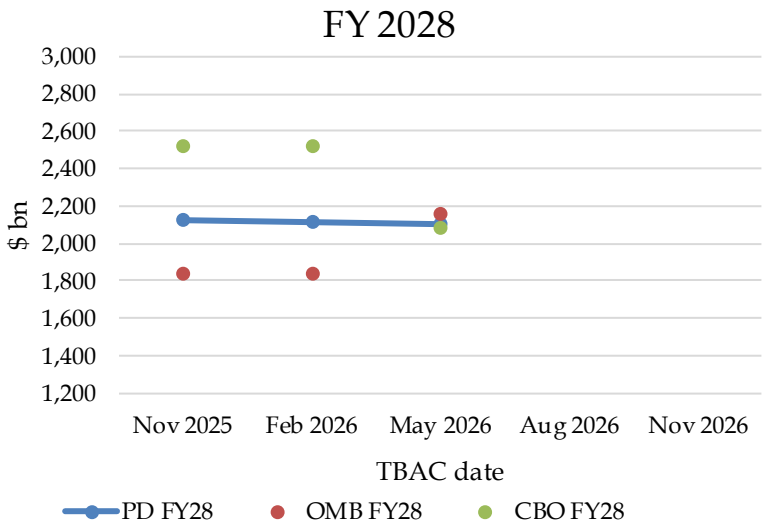
Deficit Estimates ($ billion)	PD 25th Percentile	Primary Dealers (Median)	PD 75th Percentile	Change from Prior Quarter (Median)	OMB	CBO
FY 2026	1,919	1,950	1,997	50	2,065	1,853
FY 2027	2,000	2,018	2,112	18	2,172	1,887
FY 2028	2,040	2,100	2,200	-10	2,157	2,080
As of date	Apr-26	Apr-26	Apr-26		Apr-26	Feb-26

- OMB's deficit projections are derived from Table 8-1 and Table 15-1 of "Budget of the U.S. Government Analytical Perspectives Fiscal Year 2027," April 2026.
- CBO's deficit projections are from Table 1-3 of "The Budget and Economic Outlook: 2026 to 2036," February 2026. This CBO budget projections include the effects of all legislation that passed both Houses of Congress as of January 14, 2026.

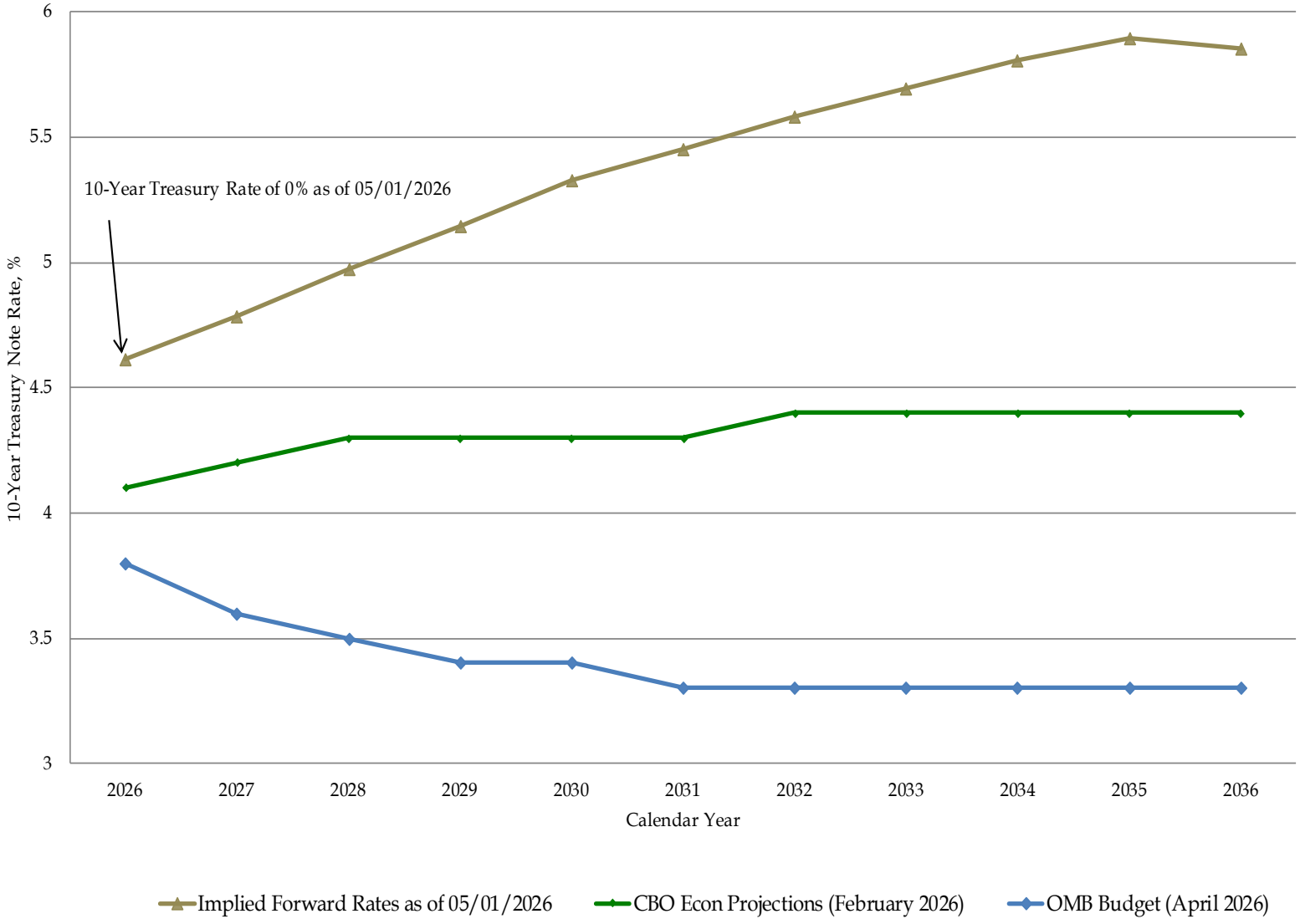
Evolution of Median Primary Dealer, OMB, and CBO Deficit Estimates







Interest Rate Assumptions: 10-Year Treasury Note

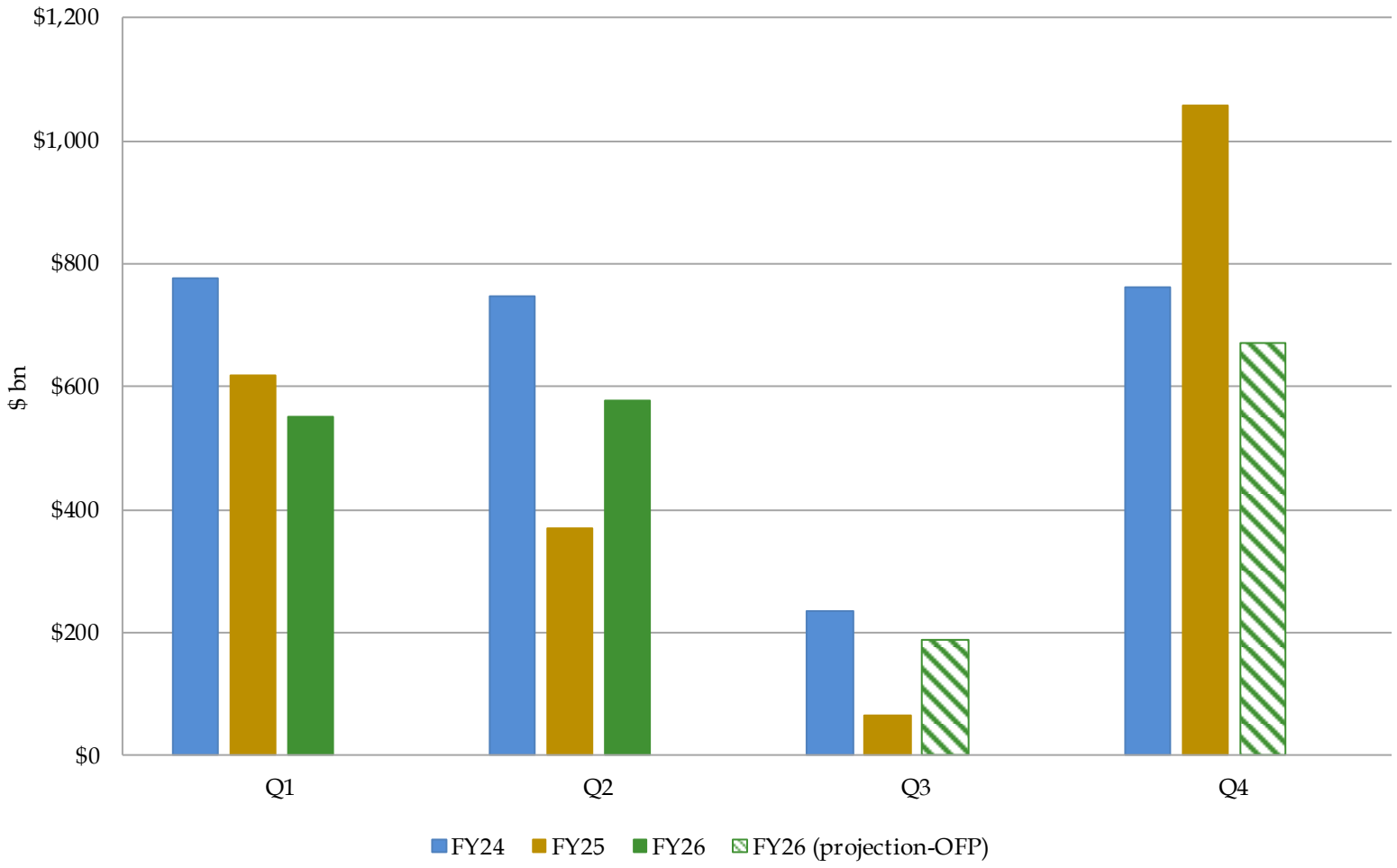


Section IV:
Estimated Borrowing Needs and Financing Implications

Assumptions for Financing Section (pages 16 to 20)

- Portfolio and SOMA holdings as of 3/31/2026, unless otherwise noted (see slide 20).
- Estimates assume privately announced issuance sizes and patterns remain constant for nominal coupons, TIPS, and FRNs given the issuance sizes in effect in April 2026, while using total bills outstanding of ~$6.82 trillion as of 3/31/2026, unless otherwise noted (see slide 20).
- The principal on the TIPS securities was accreted to each projection date based on market ZCIS levels as of 3/31/2026, unless otherwise noted (see slide 20).
- No attempt was made to account for future financing needs.
- **Privately-held marketable borrowing** excludes rollovers (auction "add-ons") of Treasury securities held in the Federal Reserve System Open Market Account (SOMA) but includes financing required due to SOMA redemptions. Secondary market purchases of Treasury securities by SOMA do not directly change privately-held net marketable borrowing but, all else equal, when the securities mature and assuming the Fed does not redeem any maturing securities, this would increase the amount of cash raised for a given privately-held auction size by increasing the SOMA "add-on" amount. These borrowing estimates are based upon current law and do not include any assumptions for the impact of additional legislation that may be passed. Additionally, buybacks are not expected to significantly affect privately-held net marketable borrowing as new issuance replaces securities that are bought back.
- Liquidity support buybacks are assumed to be the same as actual liquidity support purchases from the previous calendar quarter. Cash management buybacks are also assumed to be the same as the most recent comparable calendar quarter. Since cash management buyback sizes vary from quarter to quarter due to changes in fiscal flows, the choice of the most recent comparable calendar quarter also varies.

Privately-Held Net Marketable Borrowing Outlook



Implied Bill Funding for the Current and Next Quarters Based on Recent Borrowing Estimates

Sources of Privately-Held Financing in FY26 Q3

April - June 2026	
Assuming Constant Coupon Issuance Sizes[1]	
Treasury Announced Net Marketable Borrowing[2]	189
Net Coupon Issuance	406
Assumed Buybcks[3]	89
Implied Change in Bills	(128)

Sources of Privately-Held Financing in FY26 Q4

July - September 2026	
Assuming Constant Coupon Issuance Sizes[1]	
Treasury Announced Net Marketable Borrowing[2]	671
Net Coupon Issuance	367
Assumed Buybacks[3]	44
Implied Change in Bills	348

Security	April - June 2026 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	86	86	0	258	248	10
2-Year	207	198	9	621	526	95
3-Year	174	115	59	522	348	174
5-Year	210	159	51	630	476	154
7-Year	132	66	66	396	201	195
10-Year	120	48	72	360	155	205
20-Year	42	0	42	126	0	126
30-Year	69	0	69	207	6	201
5-Year TIPS	50	31	19	100	71	29
10-Year TIPS	19	0	19	78	38	40
20-Year TIPS[4]	0	0	0	0	18	(18)
30-Year TIPS	0	0	0	9	0	9
Coupon Subtotal	1,109	703	406	3,307	2,086	1,221

Security	July - September 2026 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	86	86	0	344	334	10
2-Year	207	197	10	828	723	105
3-Year	174	120	54	696	468	228
5-Year	210	162	48	840	637	203
7-Year	132	61	71	528	262	266
10-Year	120	54	66	480	208	272
20-Year	42	0	42	168	0	168
30-Year	69	4	65	276	10	266
5-Year TIPS	0	0	0	100	71	29
10-Year TIPS	40	38	2	118	76	42
20-Year TIPS[4]	0	0	0	0	18	(18)
30-Year TIPS	8	0	8	17	0	17
Coupon Subtotal	1,088	721	367	4,395	2,807	1,588

[1] Keeping announced issuance sizes and patterns constant for nominal coupons, TIPS, and FRNs.
[2] Assumes end-of-June 2026 and end-of-September 2026 cash balances of $900 billion and $950 billion, respectively, versus end-of-March 2026 cash balance of $893 billion. Financing Estimates released by the Treasury can be found here: http://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/Latest.aspx
[3] Assumed buyback amounts for liquidity support are based on the most recent actuals (Feb26 to Apr26). Assumed buyback amounts for cash management are based on Jun25 and Apr26 actuals for FY26 Q3 and Sep24 actuals for FY26 Q4.
[4] Treasury is currently not issuing 20-year TIPS.

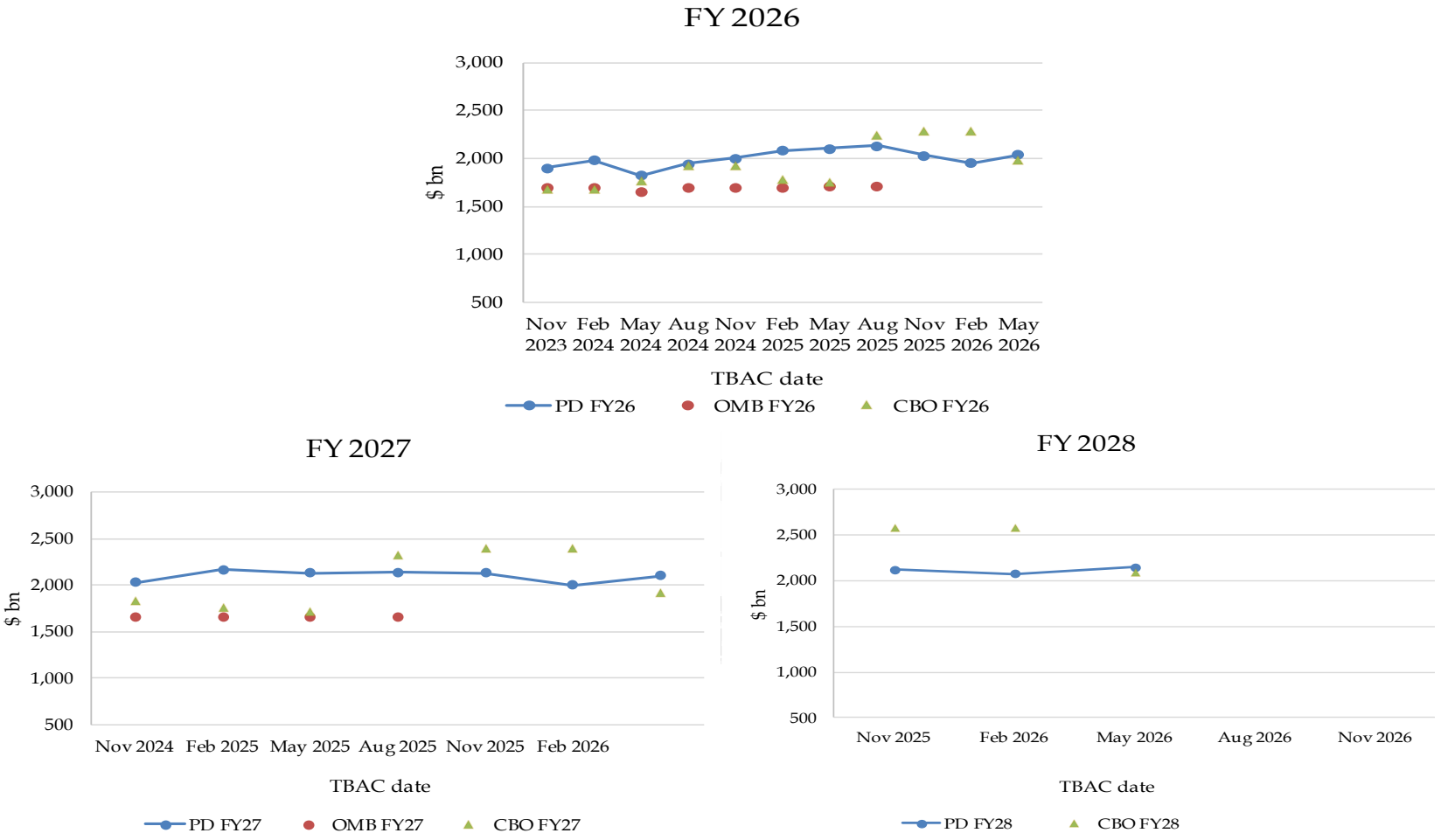
Longer-Term Privately-Held Net Marketable Borrowing Estimates

FY 2026-2028 Deficits and Privately-Held Net Marketable Borrowing Estimates, in $ billions

	Primary Dealer			OFP	OMB	CBO
	25th	Median	75th			
FY 2026 Deficit	1,919	1,950	1,997		2,065	1,853
FY 2027 Deficit	2,000	2,018	2,112		2,172	1,887
FY 2028 Deficit	2,040	2,100	2,200		2,157	2,080
FY 2026 Privately-Held Net Marketable Borrowing*	1,956	2,041	2,108	1,987		1,987
FY 2027 Privately-Held Net Marketable Borrowing*	2,013	2,100	2,130			1,910
FY 2028 Privately-Held Net Marketable Borrowing*	2,081	2,150	2,265			2,088
Estimates as of:		Apr-26		Apr-26	Apr-26	Feb-26

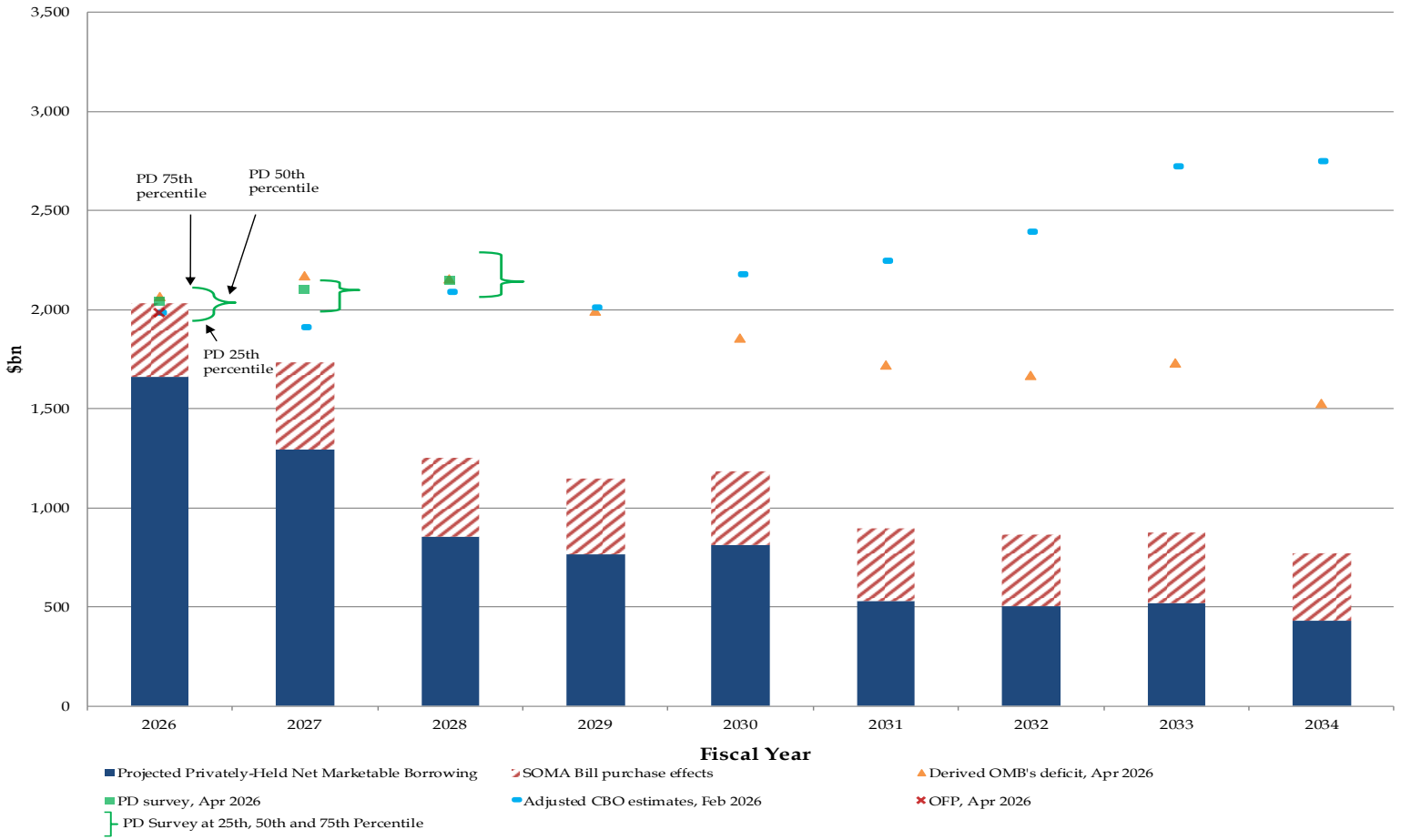
- All privately-held net marketable borrowing estimates are "normalized" using assumed Fiscal Year 2026 cash balance of $950 billion, held constant in out years.
- OMB's deficit projections are derived from Table 8-1 and Table 15-1 of "Budget of the U.S. Government Analytical Perspectives Fiscal Year 2027," April 2026. OMB's borrowing estimates are not available for this refunding.
- CBO's projections are from Table 1-3 of "The Budget and Economic Outlook: 2026 to 2036," February 2026. This CBO budget projections include the effects of all legislation that passed both Houses of Congress as of January 14, 2026.

Evolution of Median Primary Dealer, OMB, and CBO Privately-Held Net Marketable Borrowing Estimates*



- OMB's borrowing estimates are not available for this refunding.
- CBO's deficit projections are from Table 1-3 of "The Budget and Economic Outlook: 2026 to 2036," February 2026. This CBO budget projections include the effects of all legislation that passed both Houses of Congress as of January 14, 2026.

Projected Privately-Held Net Marketable Borrowing
Assuming Private Coupon Issuance & Privately-Held Bills Outstanding Remain Constant as of 4/30/2026*



*Treasury's latest primary dealer survey median/interquartile range estimates can be found on page 18. CBO's projections are from Table 1-3 of "The Budget and Economic Outlook: 2026 to 2036," February 2026. This CBO budget projections include the effects of all legislation that passed both Houses of Congress as of January 14, 2026. OMB's deficit projections are derived from Table 8-1 and Table 15-1 of "Budget of the U.S. Government Analytical Perspectives Fiscal Year 2027," April 2026. OMB's borrowing estimates are not available for this refunding. In addition, all privately-held net marketable borrowing estimates are normalized with a cash balance assumption of $950 billion. SOMA purchase effects are estimated based on recent MBS principal payments and reserve management purchases.

Section V:
Select Portfolio Metrics

Note: Several of the portfolio metrics charts that follow include three years of projections.

These projections are hypothetical and <u>are meant for illustrative purposes only</u>. The projections contained in these charts <u>should not</u> be interpreted as representing any future policy decisions regarding Treasury financing.

Projections illustrate how various portfolio metrics could evolve under three hypothetical financing scenarios. The scenarios were chosen to illustrate a potential range of portfolio metric outcomes based on hypothetical issuance choices.

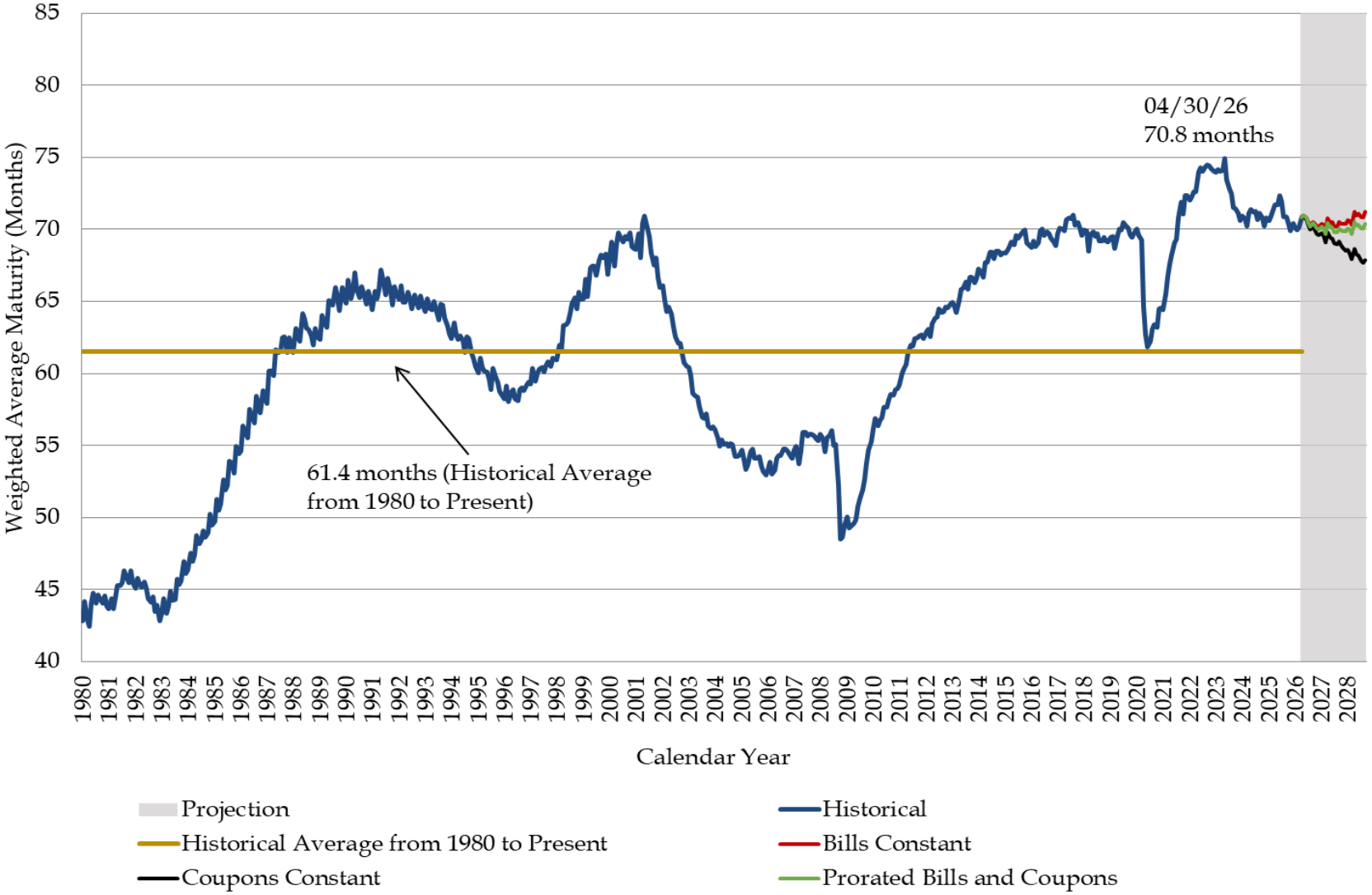
The scenarios are:

1) ***"Coupons Constant":*** Treasury maintains **coupon, FRN, and TIPS auction sizes constant** as of April 2026 and addresses any changes in financing needs by only increasing or decreasing T-bill auction sizes;
2) ***"Bills Constant":*** Treasury maintains **T-bills aggregate supply constant** at $6.6 trillion as of 4/30/2026 and increases or decreases coupon, FRN, and TIPS auction sizes in response to financing needs in a manner that maintains current issuance proportions going forward;
3) ***"Prorated Bills and Coupons":*** Treasury maintains **T-bills share constant** at 21.7% as of 4/30/2026 and addresses any changes in financing needs by pro rata increasing or decreasing coupon, FRN, and TIPS auction sizes.

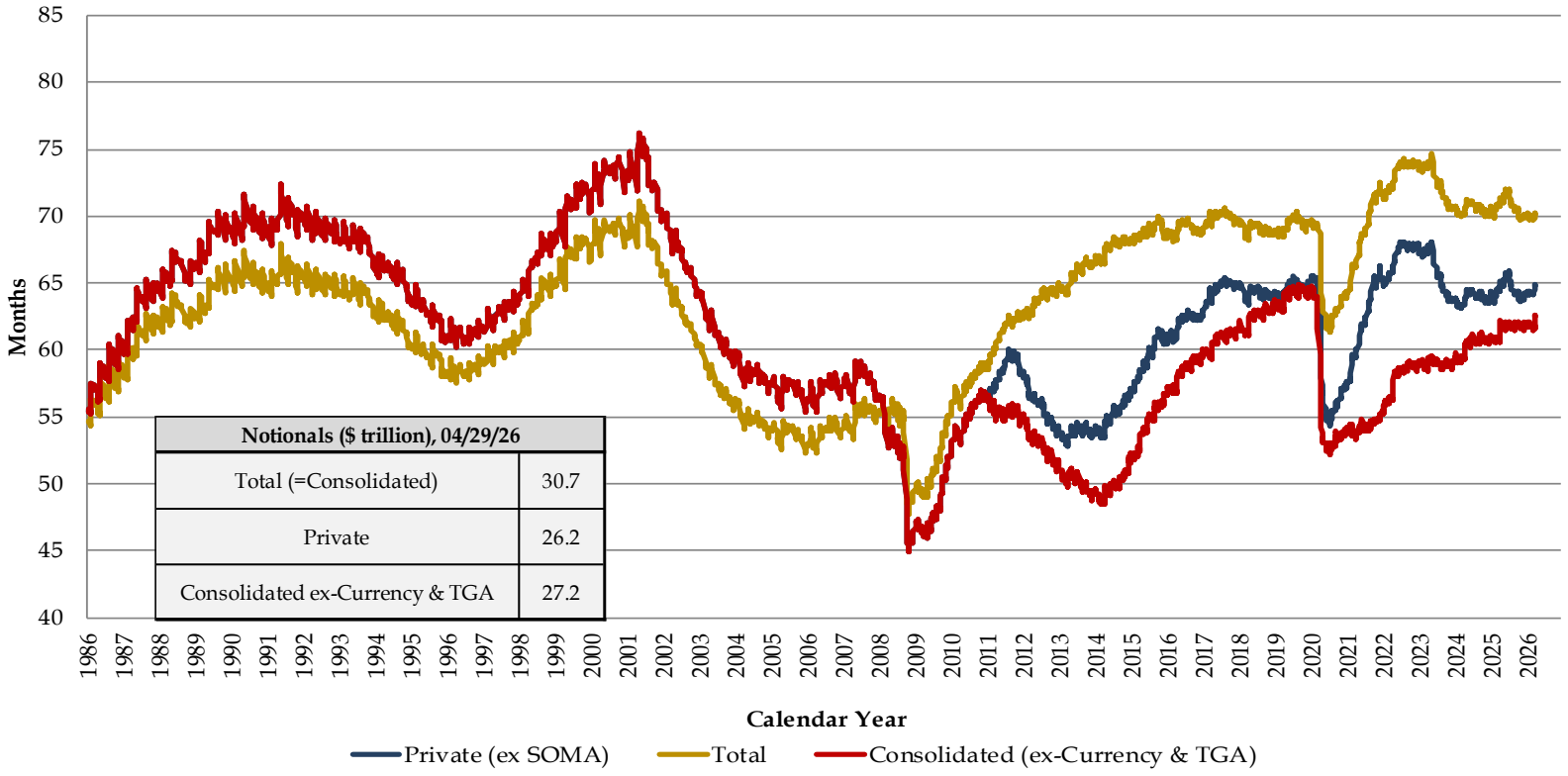
Privately-held net marketable borrowing needs used in the projections section of these charts are proxied using median primary dealer estimates for FY26, FY27 & FY28 (see page 18).

Buybacks are included in these projections using the same assumptions as Section IV.

Weighted Average Maturity of Marketable Debt Outstanding

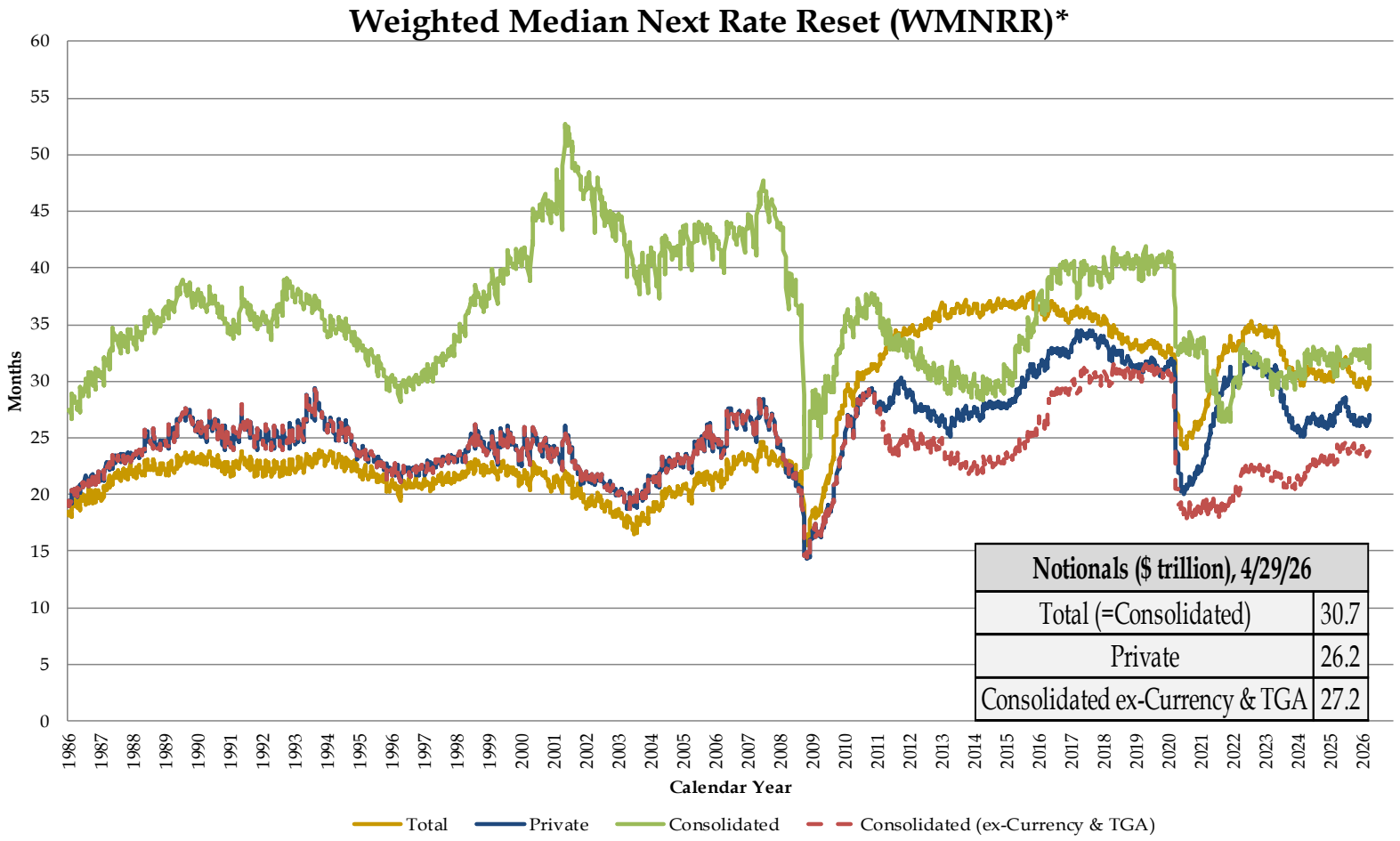


Consolidated **WANRR** Calculation*

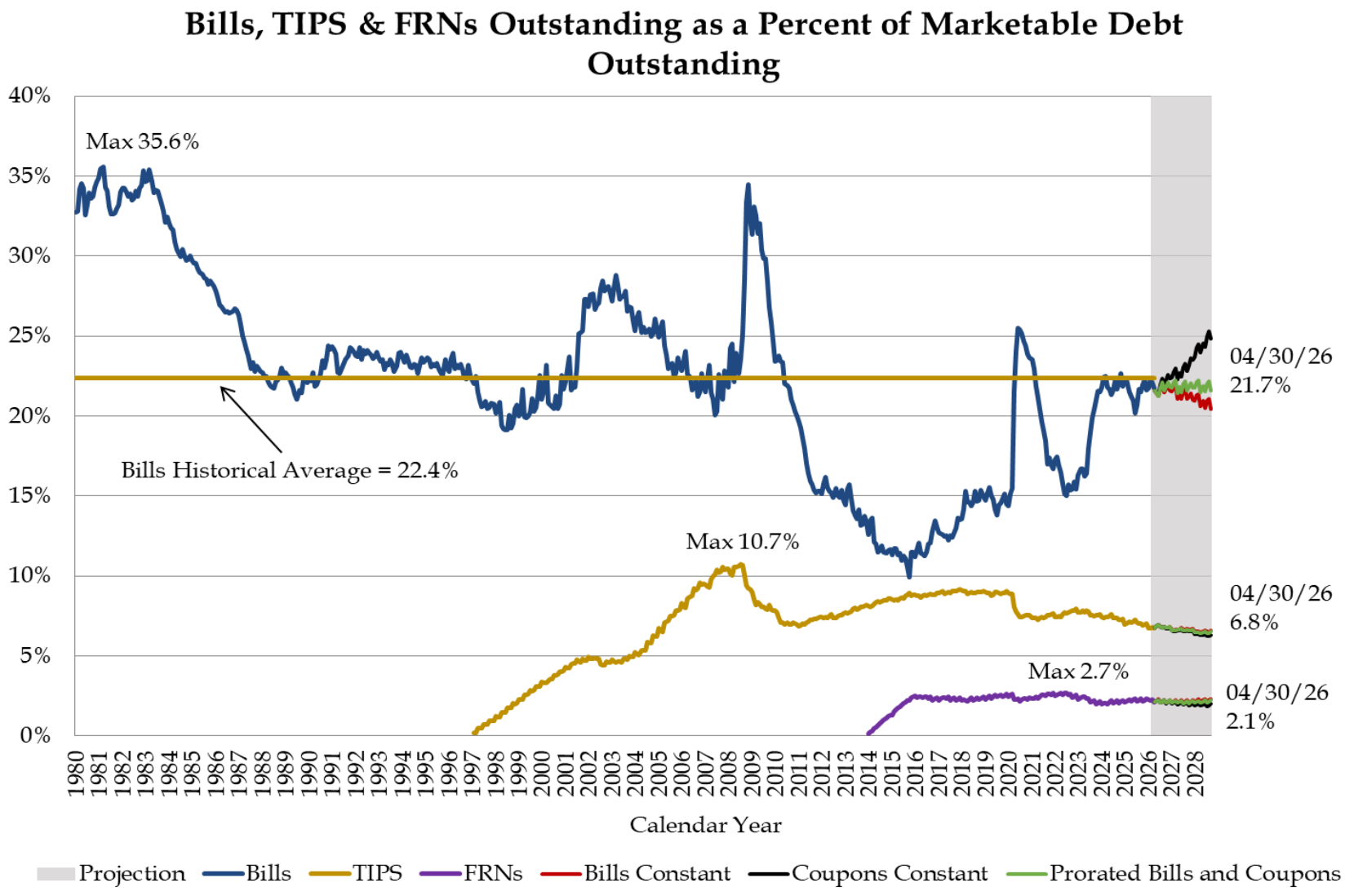


Notionals ($ trillion), 04/29/26	
Total (=Consolidated)	30.7
Private	26.2
Consolidated ex-Currency & TGA	27.2

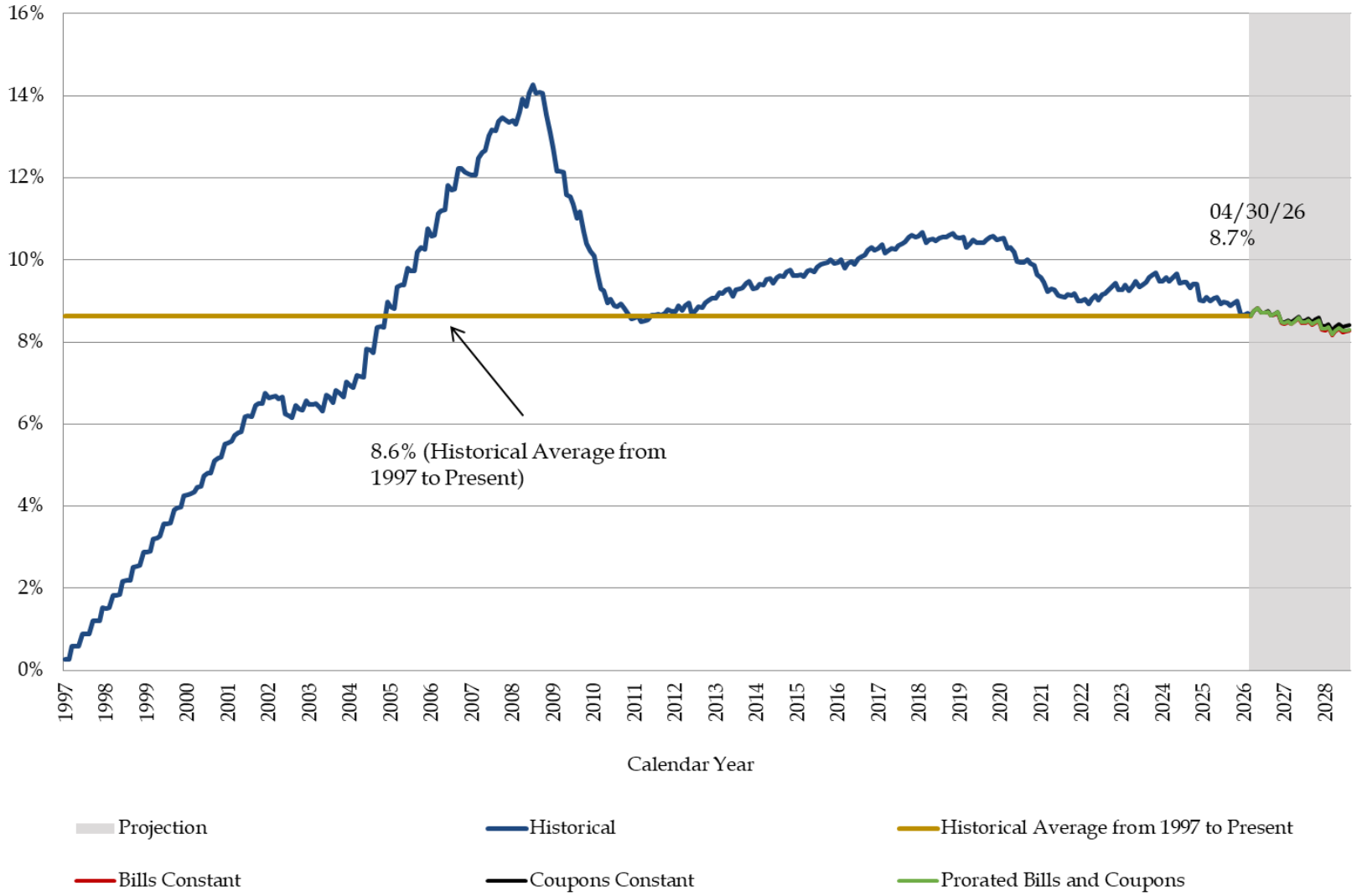
* Weighted Average Next Rate Reset (WANRR) is a "Weighted Average Maturity" metric that attempts to adjust for the floating rate aspect of some Treasury debt. The WANRR is the average time until the outstanding debt's interest rate is set to a new interest rate. For bills and fixed rate notes and bonds, the next rate reset is equal to the maturity date.
In contrast, for floating rate obligations, the time between the next rate reset date or maturity date is examined and the shorter period is used in the calculation.
The consolidated outstanding debt is defined as the private amount plus SOMA Treasury securities holdings less currency in circulation and the size of the Treasury General Account (TGA). In this calculation, SOMA Treasury holdings greater than the sum of the level of currency in circulation and the size of the TGA is treated as if it has a daily rate reset.



*Weighted Median Next Rate Reset (WMNRR) of the Treasury portfolio (Total or Private) is the time, in months, by which half the portfolio by current-face is scheduled to mature (or be subject to rate-reset for FRNs). In most cases no existing tenor/coupon-date will demarcate exactly 50% of cumulative-notional; as such, linear interpolation between two nearest tenors is used.
WMNRR of the Consolidated portfolio is calculated in the same manner, but with SOMA Treasury holdings netted-out, against combined non-interest-bearing liabilities of currency in circulation & the size of the TGA (treated as having a de facto infinite next-reset date) and the remainder, as applicable, against reserve balances and RRP (considered to have a one-day next-reset). WMNRR Consolidated (ex-Currency & TGA) reflects the WMNRR of the consolidated portfolio but excluding that portion of SOMA Treasury holdings implicitly financed by the currency in circulation and the size of the TGA; this is equivalent to Privately-held Treasuries outstanding + SOMA Treasury holdings, less Currency & TGA balance.


Bills, TIPS & FRNs Outstanding as a Percent of Marketable Debt Outstanding
40%
35%
30%
25%
20%
15%
10%
5%
0%
Max 35.6%
Bills Historical Average = 22.4%
Max 10.7%
Max 2.7%
04/30/26
21.7%
04/30/26
6.8%
04/30/26
2.1%
1980 1981 1982 1983 1984 1985 1986 1987 1988 1989 1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028
Calendar Year
Projection
Bills
TIPS
FRNs
Bills Constant
Coupons Constant
Prorated Bills and Coupons

TIPS Outstanding as a Percentage of Total Coupon Bearing Securities

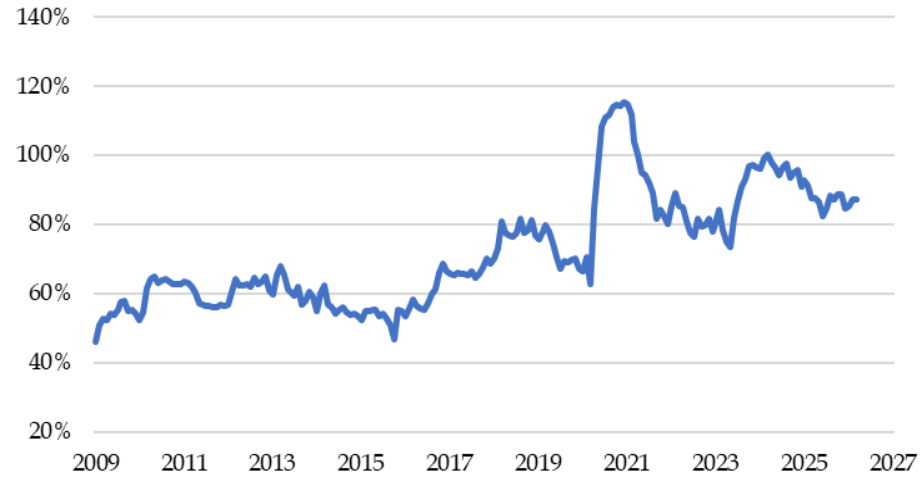


Measures of Treasury Bill Supply

Total Bills Outstanding/Nominal GDP

Total Bills Outstanding/Commercial Bank Deposits

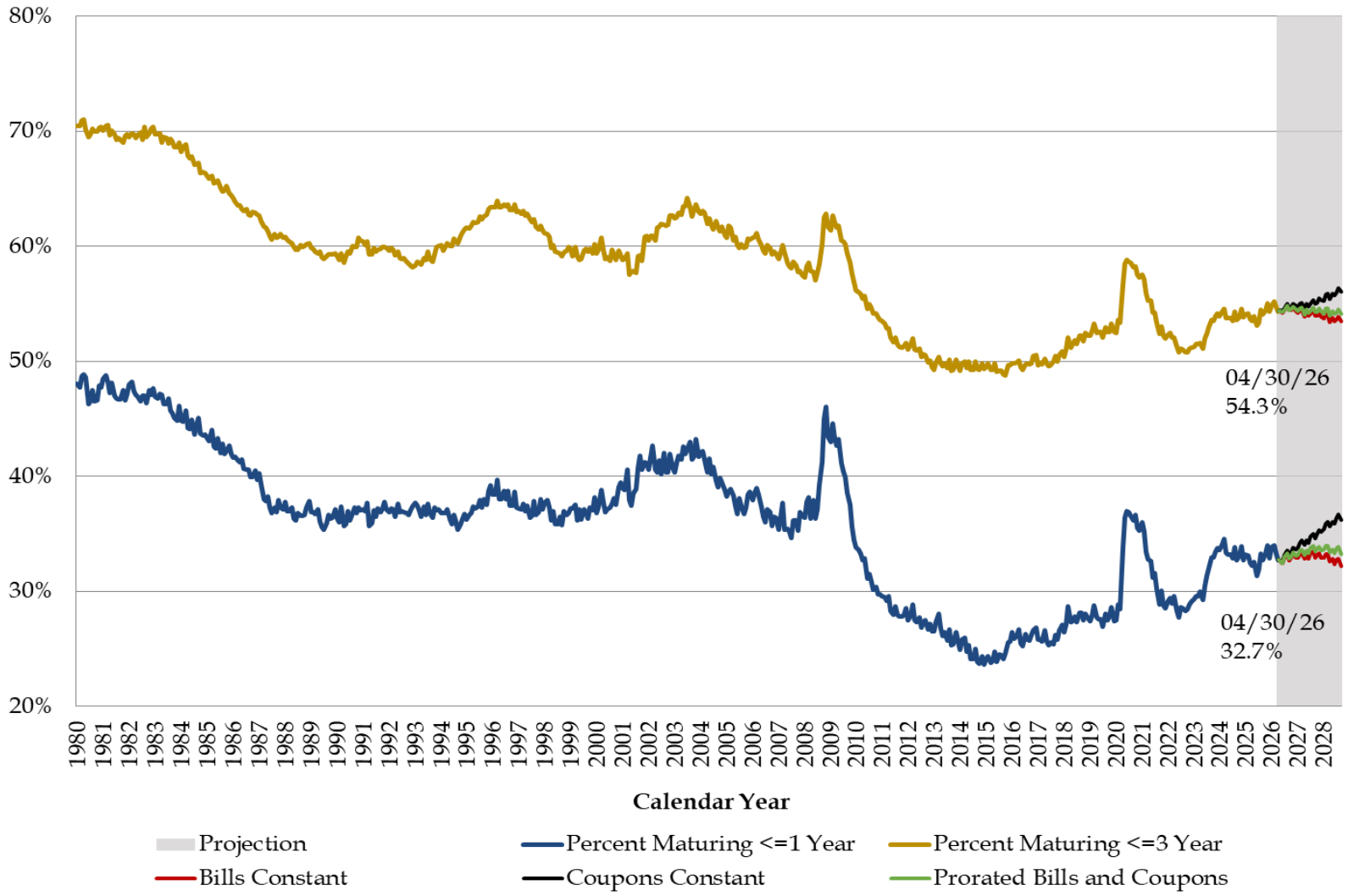
Total Bills Outstanding/Total MMF AUM



Total Bills Outstanding/Federal Reserve Liabilities ex. TGA

Source: Bloomberg and Treasury

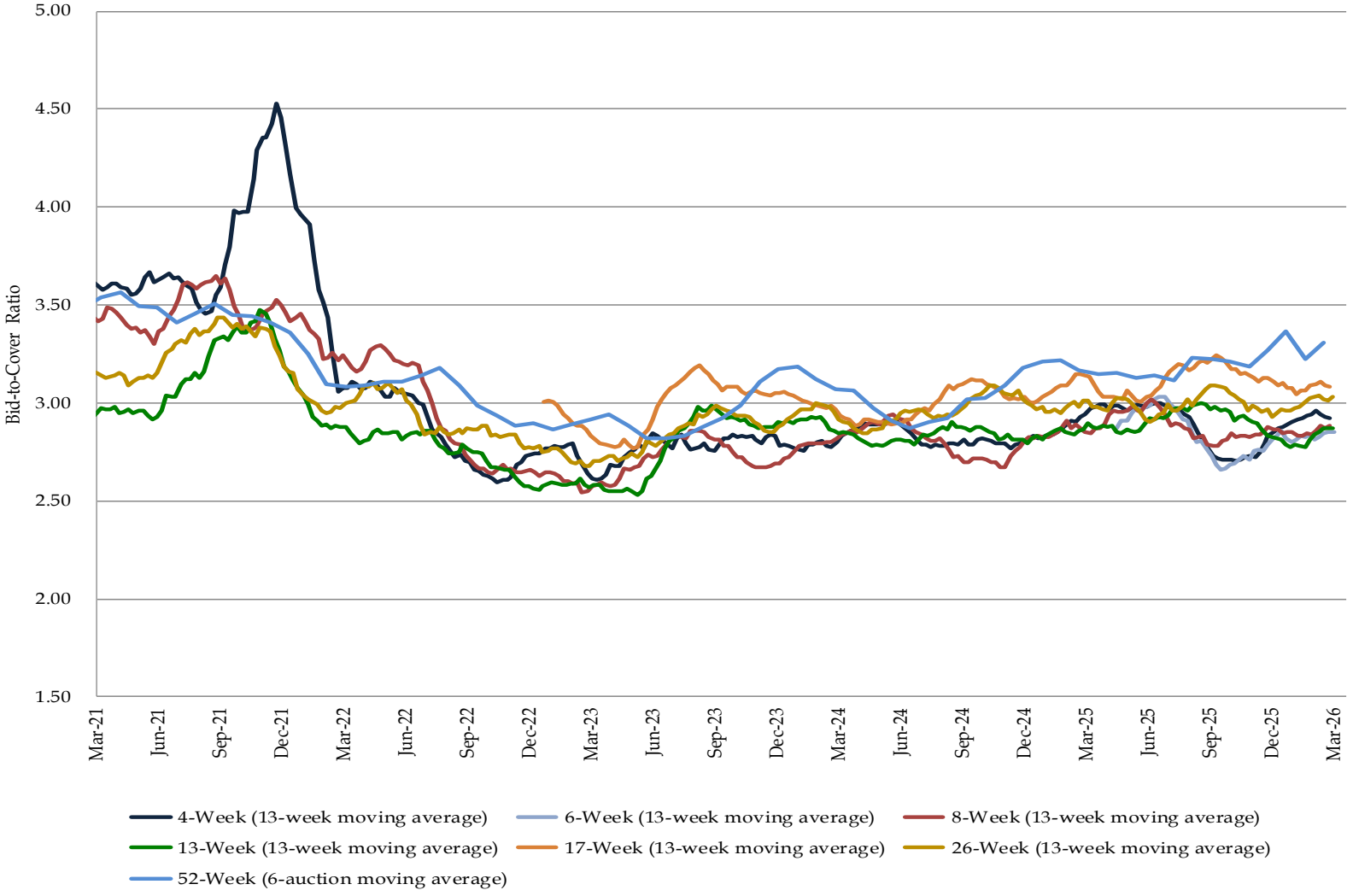
Treasury Maturity Profile



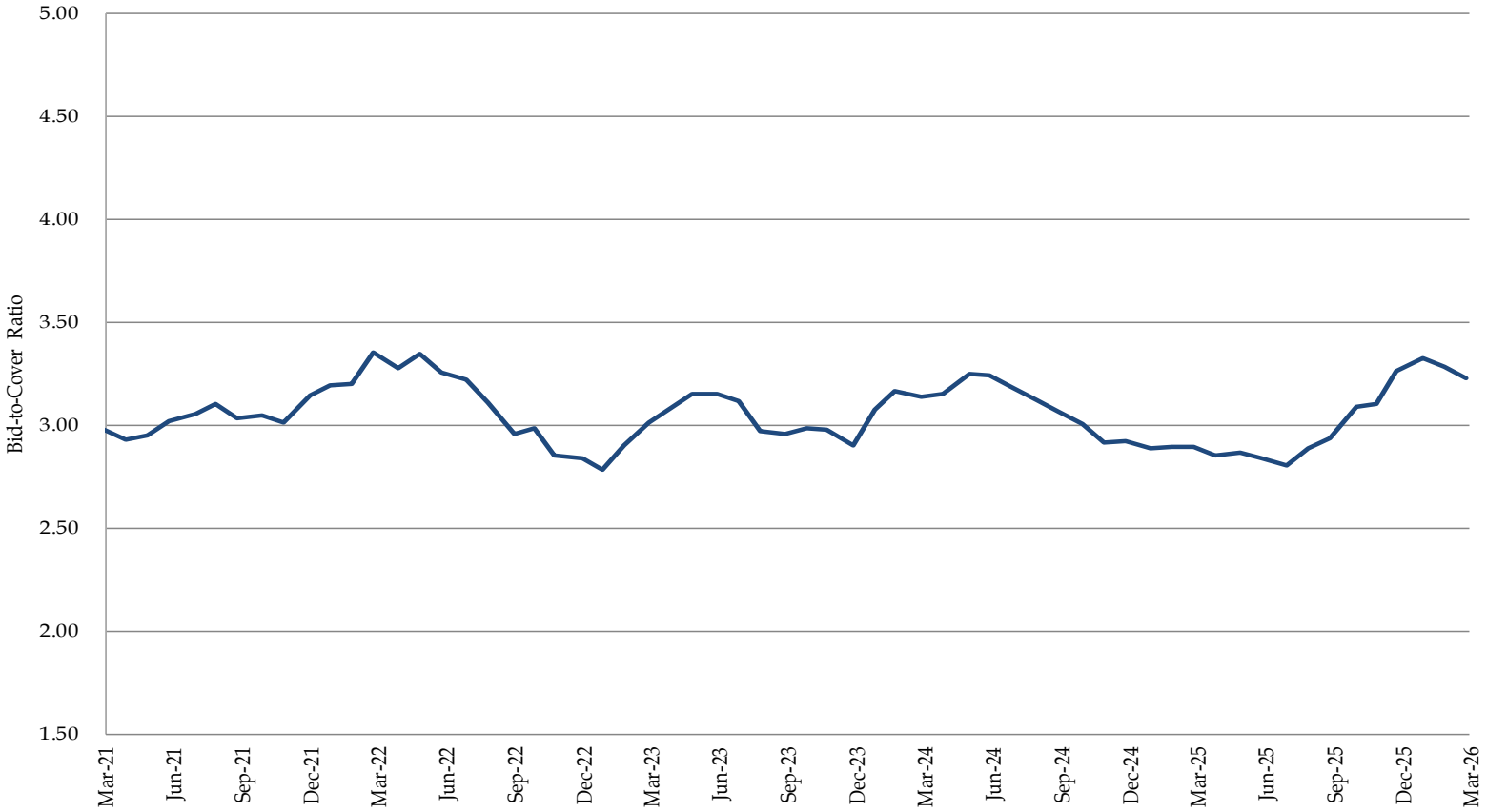
Section VI:
Select Demand Metrics

Bid-to-Cover Data, Investor Class Data,
Direct & Primary Dealer Awards, and Foreign Demand

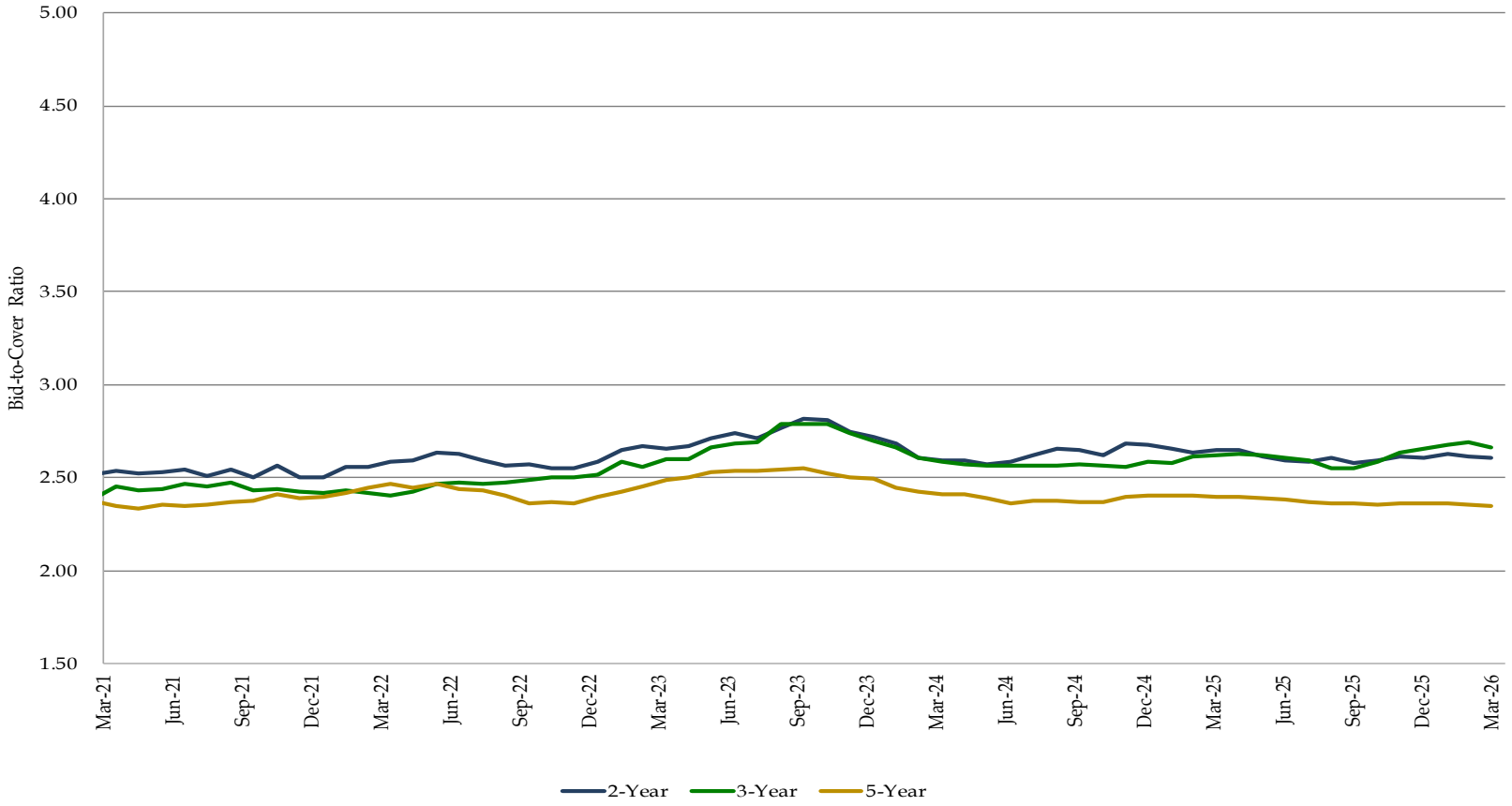
Bid-to-Cover Ratios for Treasury Bills



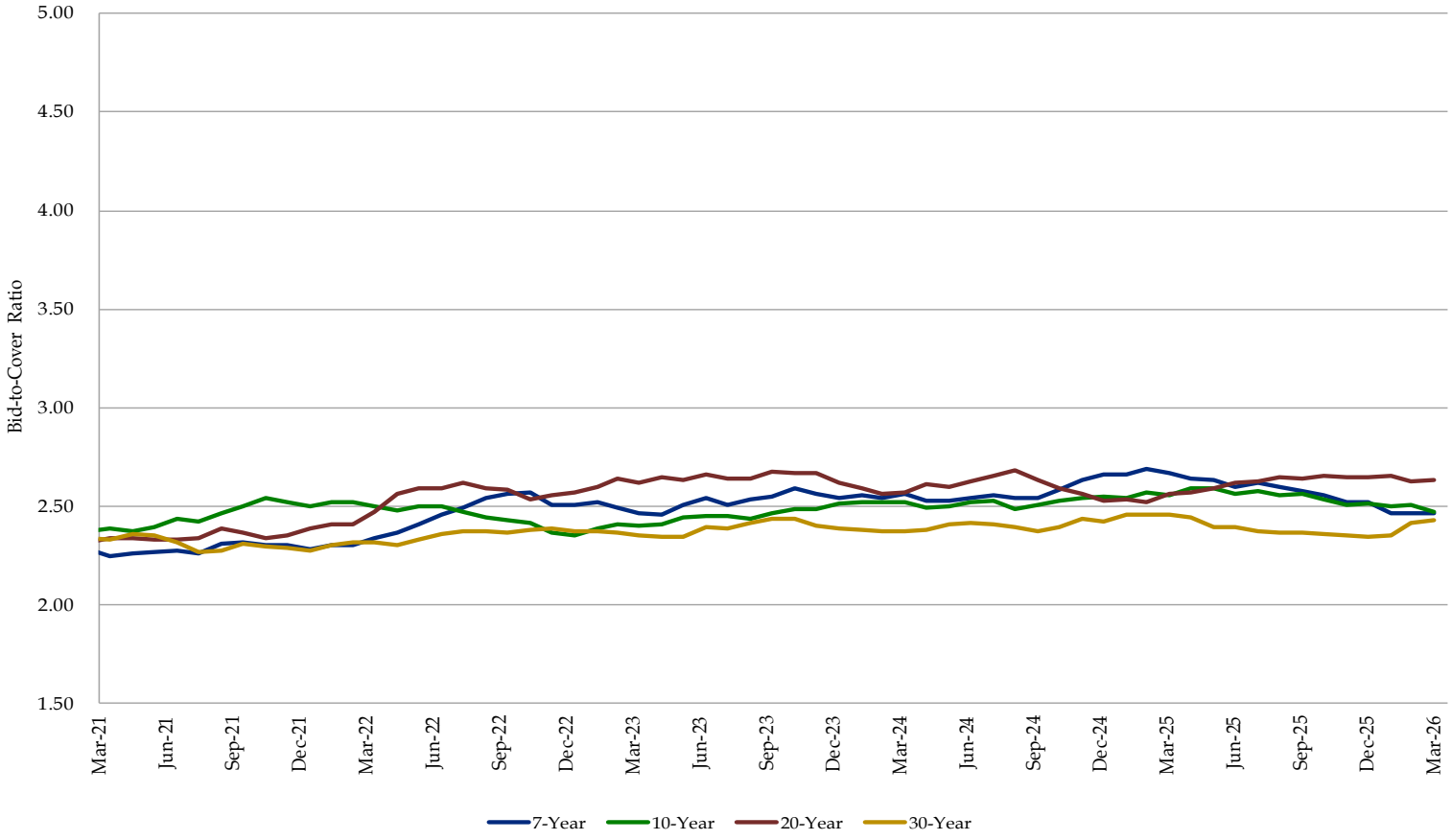
Bid-to-Cover Ratios for FRNs
(6-Month Moving Average)



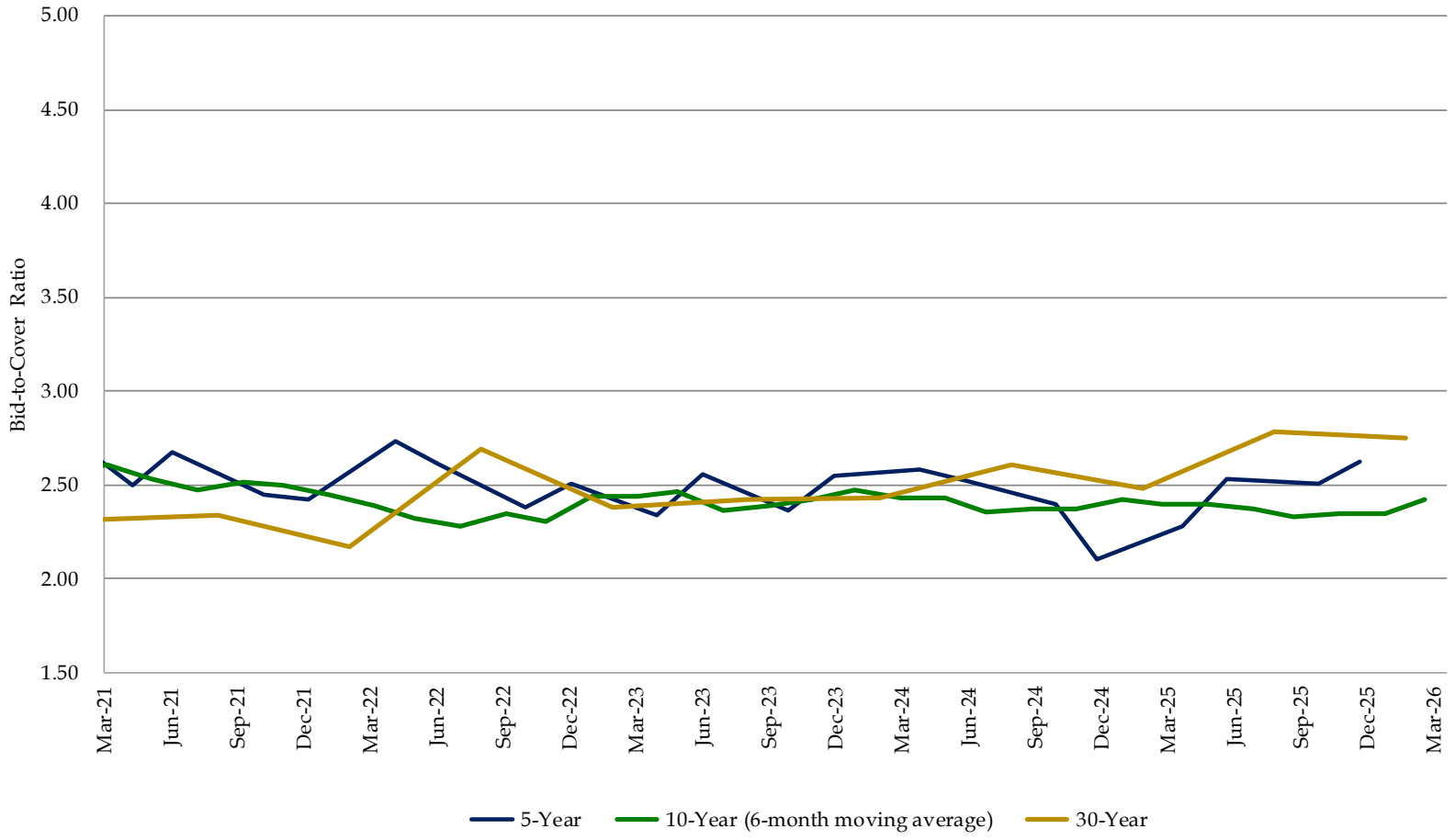
Bid-to-Cover Ratios for 2-, 3-, and 5-Year Nominal Securities (6-Month Moving Average)



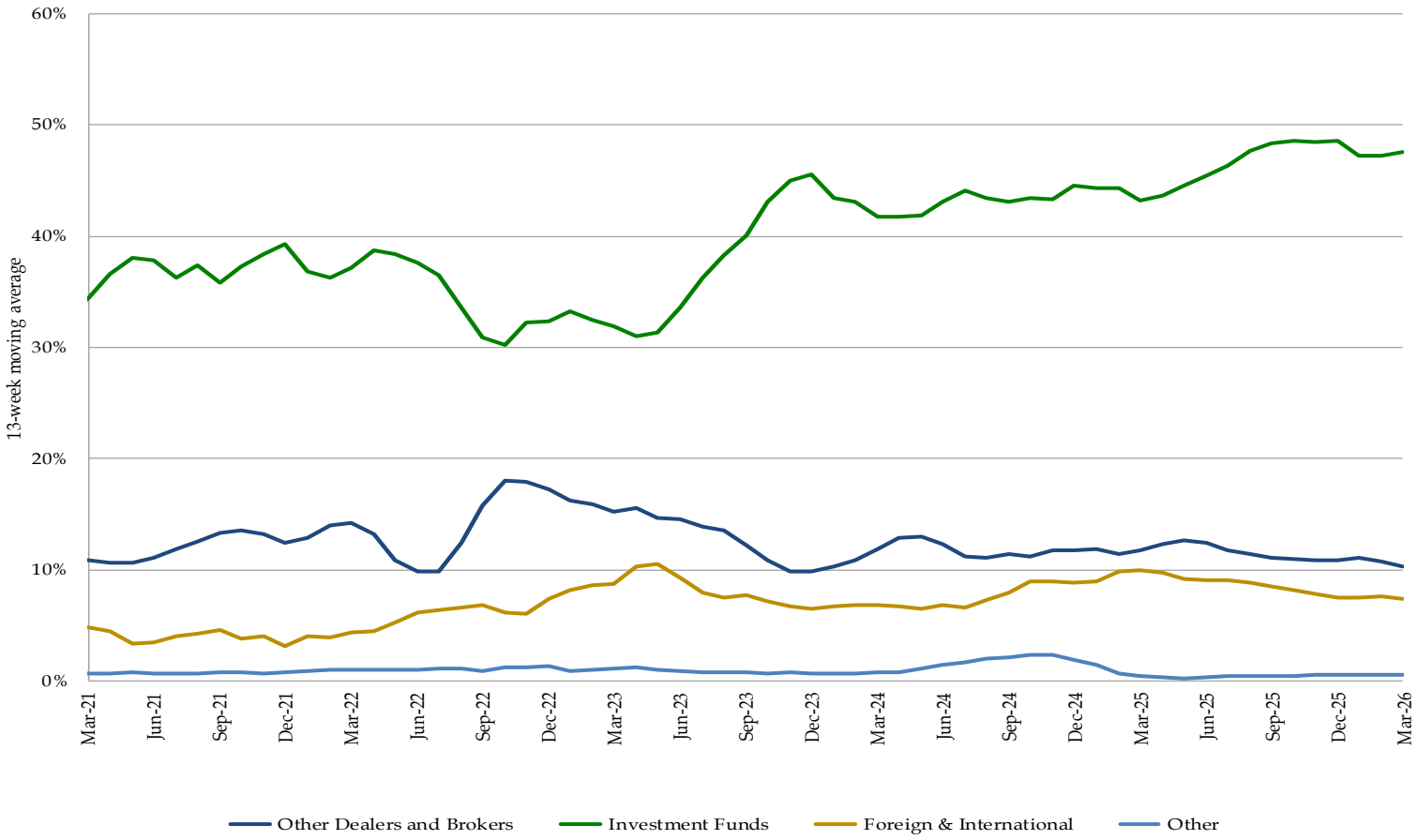
Bid-to-Cover Ratios for 7-, 10-, 20-, and 30-Year Nominal Securities (6-Month Moving Average)



Bid-to-Cover Ratios for TIPS

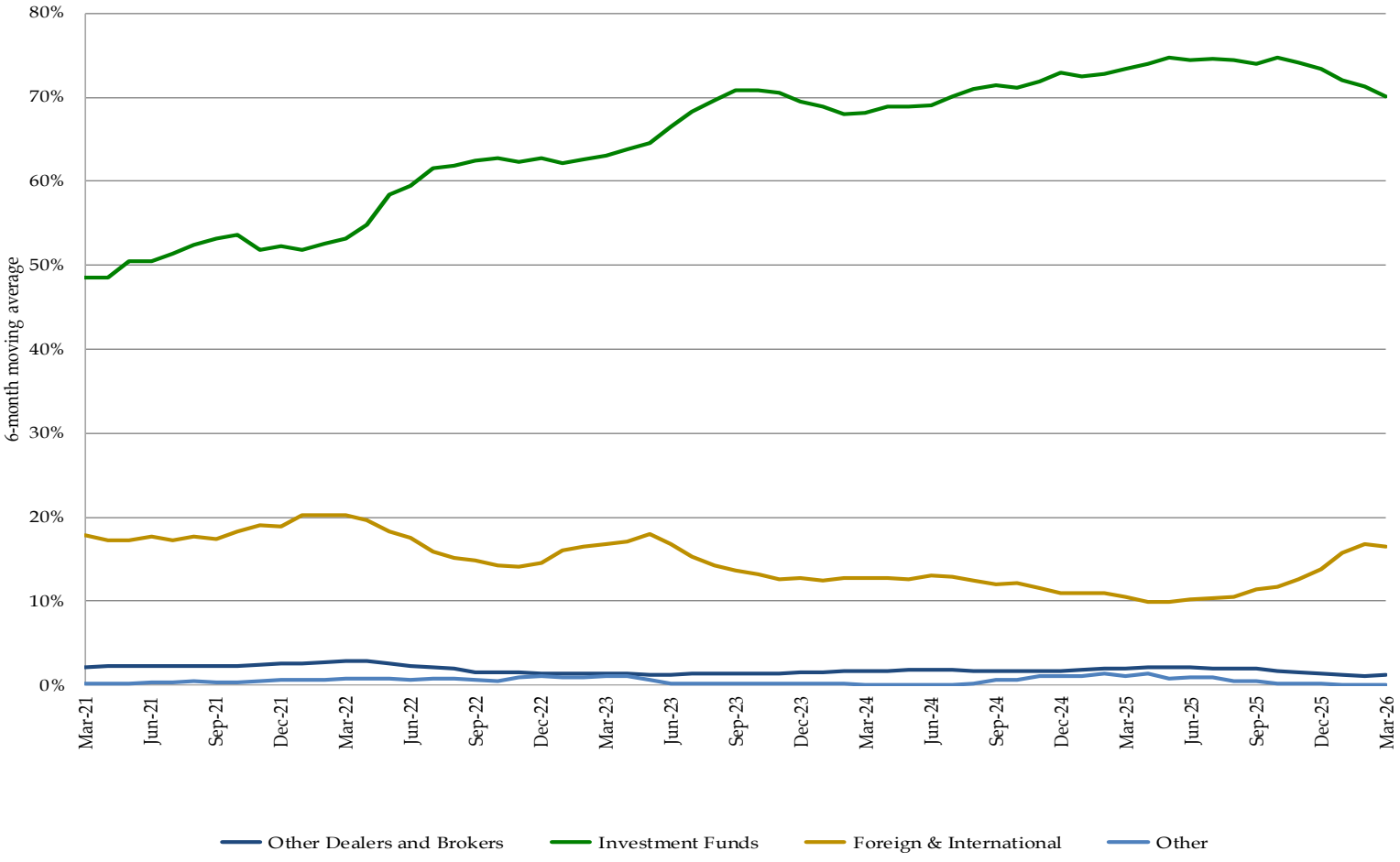


Percent Awarded in Bill Auctions by Investor Class (13-Week Moving Average)



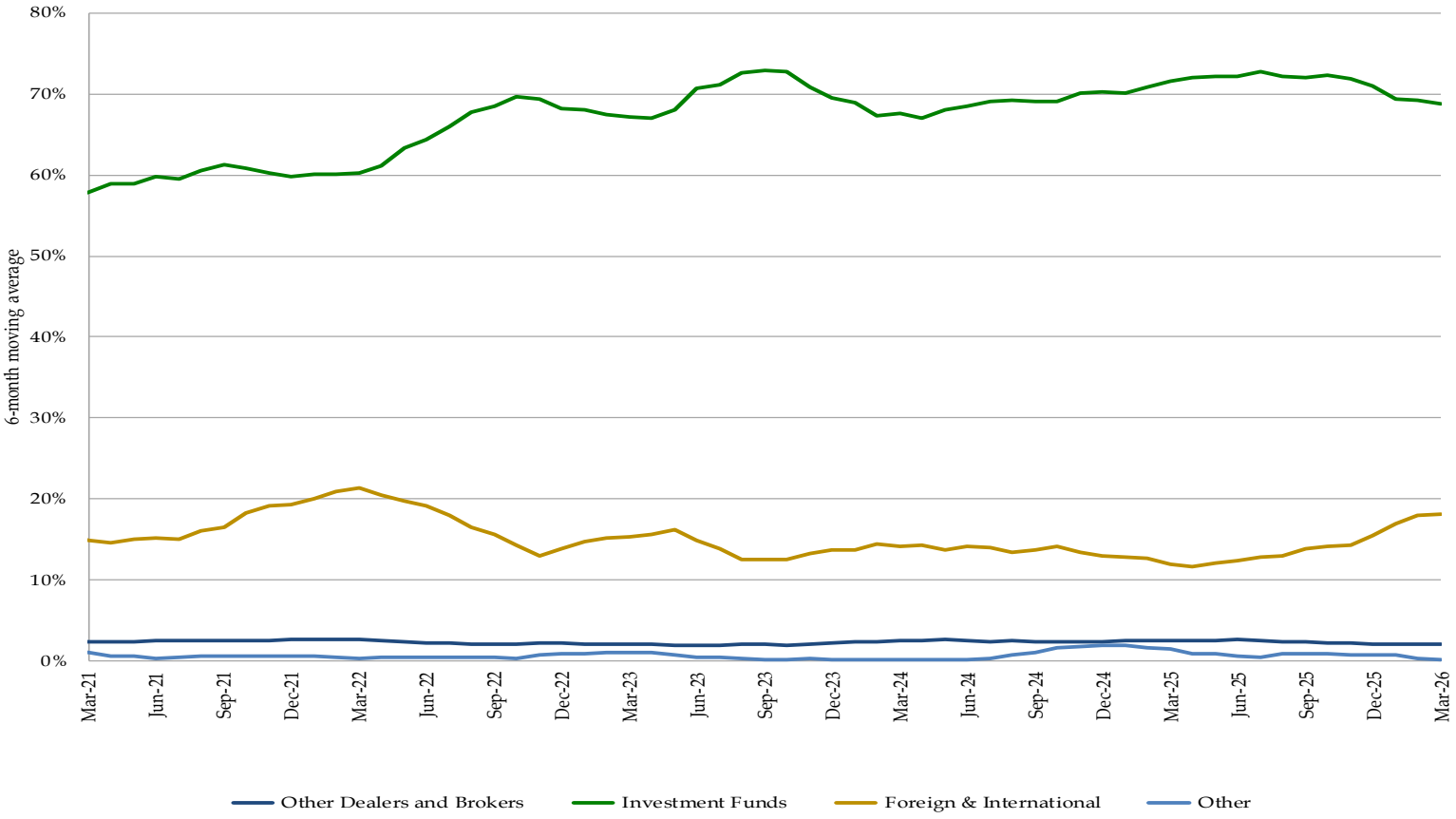
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Percent Awarded in 2-, 3-, and 5-Year Nominal Security Auctions by Investor Class (6-Month Moving Average)



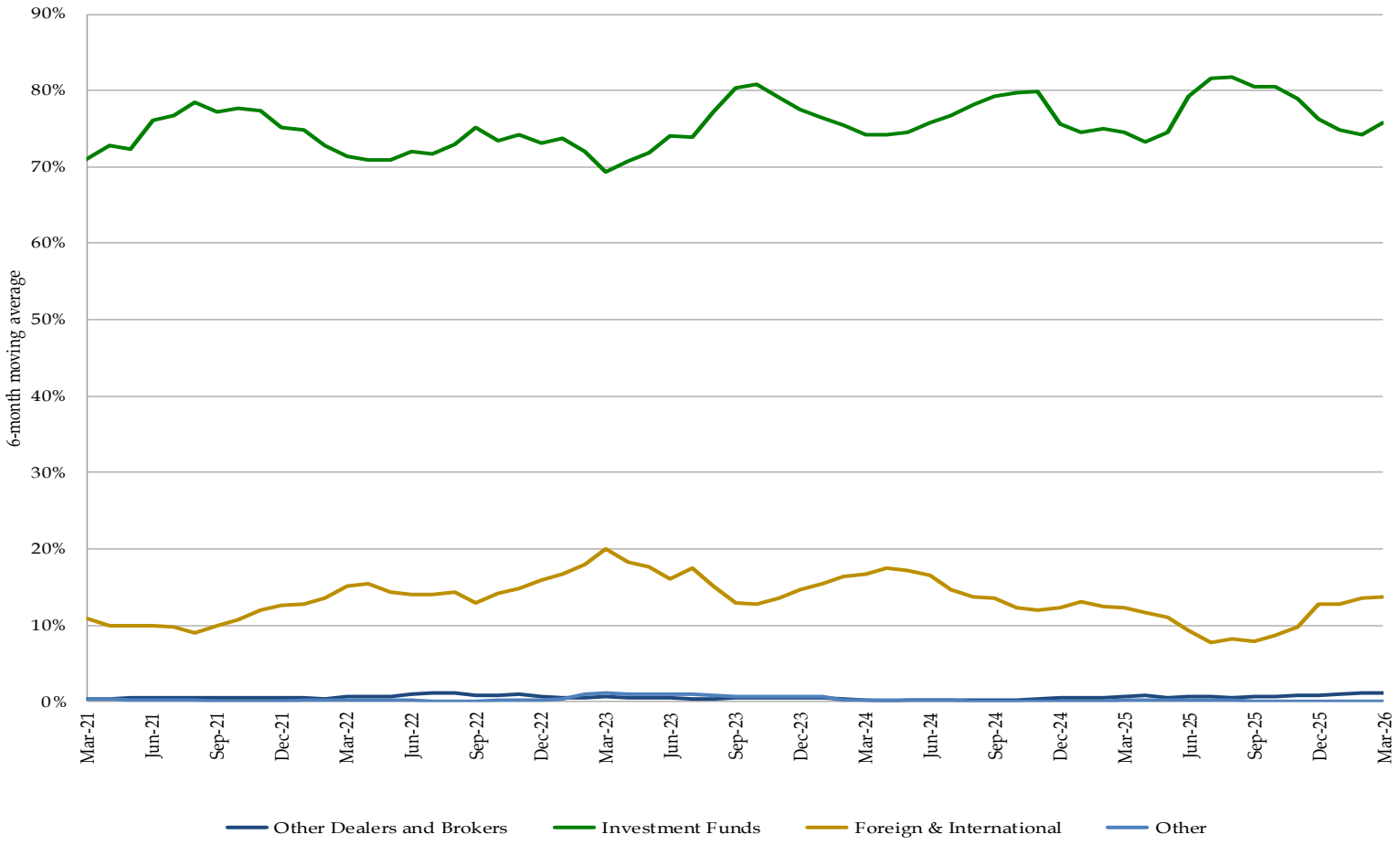
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Percent Awarded in 7-, 10-, 20-, 30-Year Nominal Security Auctions by Investor Class (6-Month Moving Average)



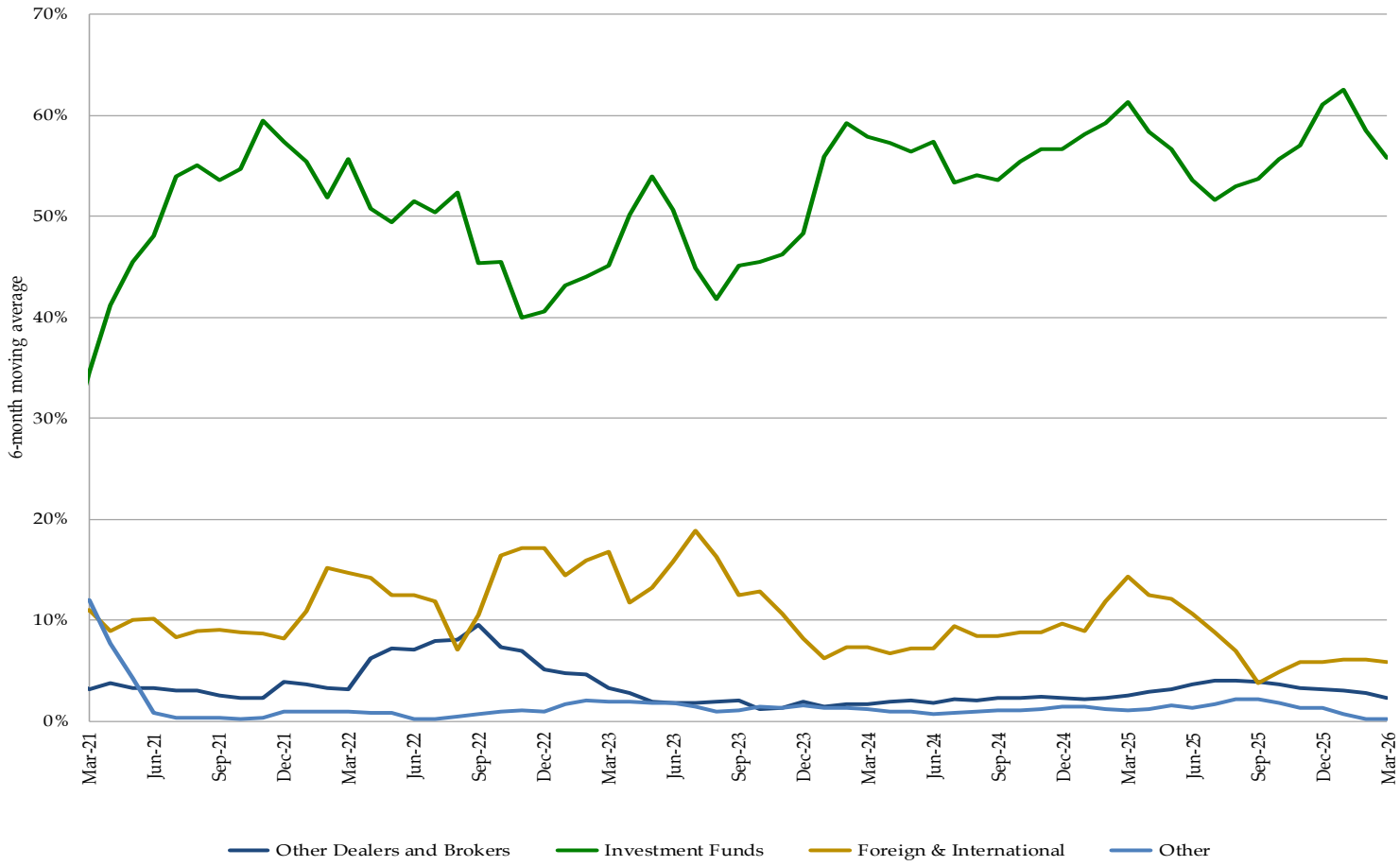
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Percent Awarded in TIPS Auctions by Investor Class (6-Month Moving Average)



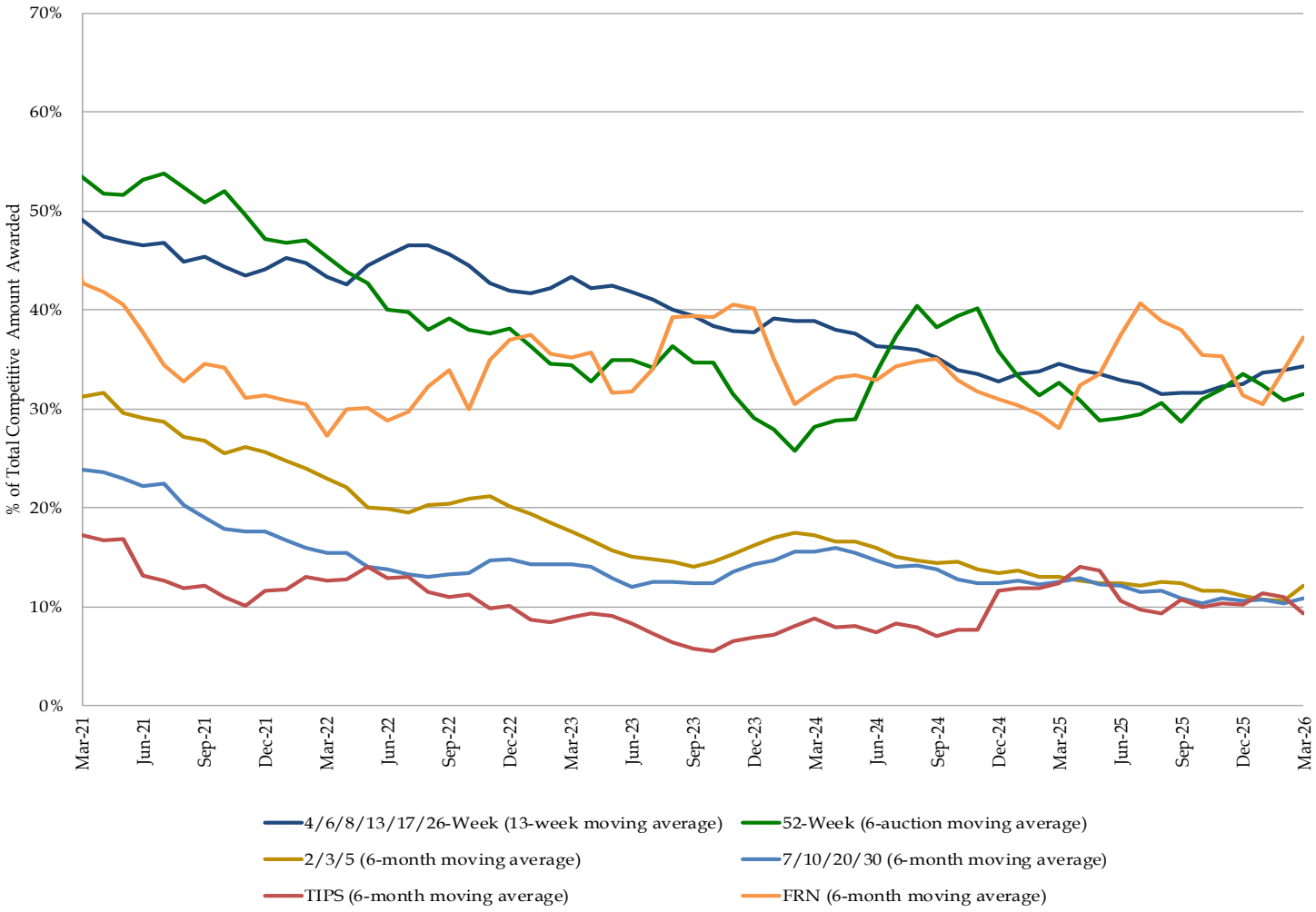
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Percent Awarded in FRN Auctions by Investor Class (6-Month Moving Average)



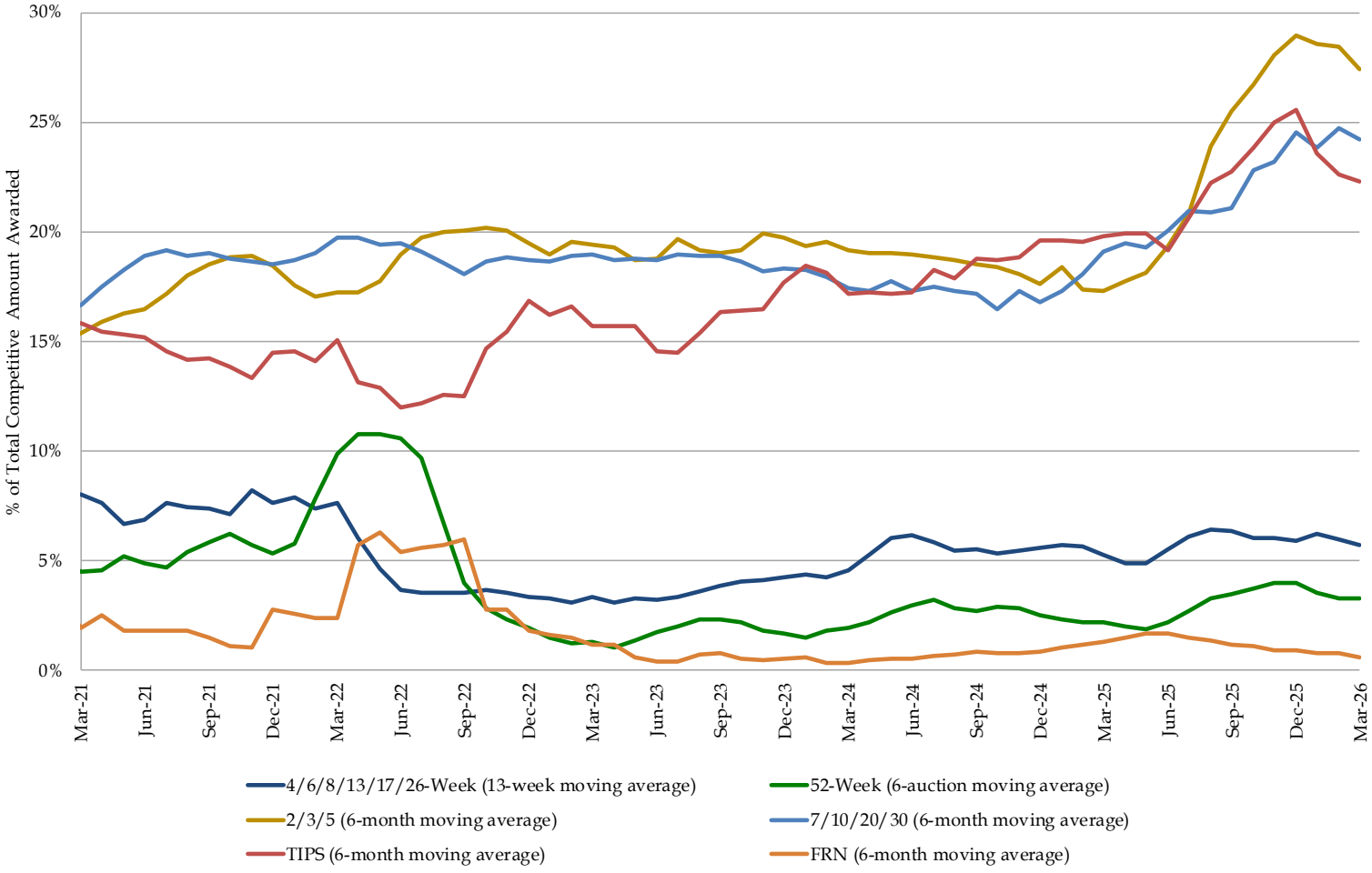
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Primary Dealer Awards at Auction



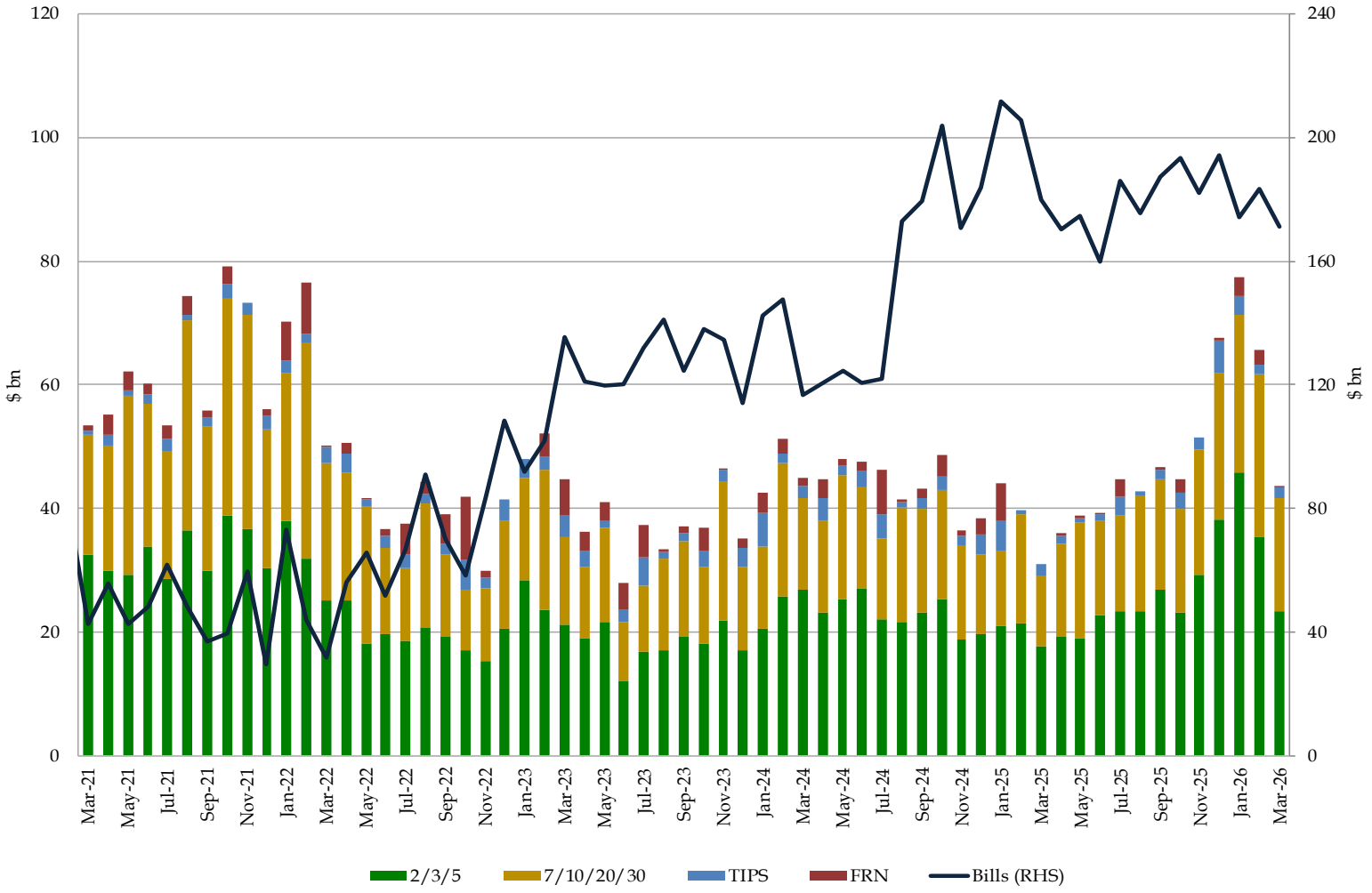
Competitive Amount Awarded excludes SOMA add-ons.

Direct Bidder Awards at Auction



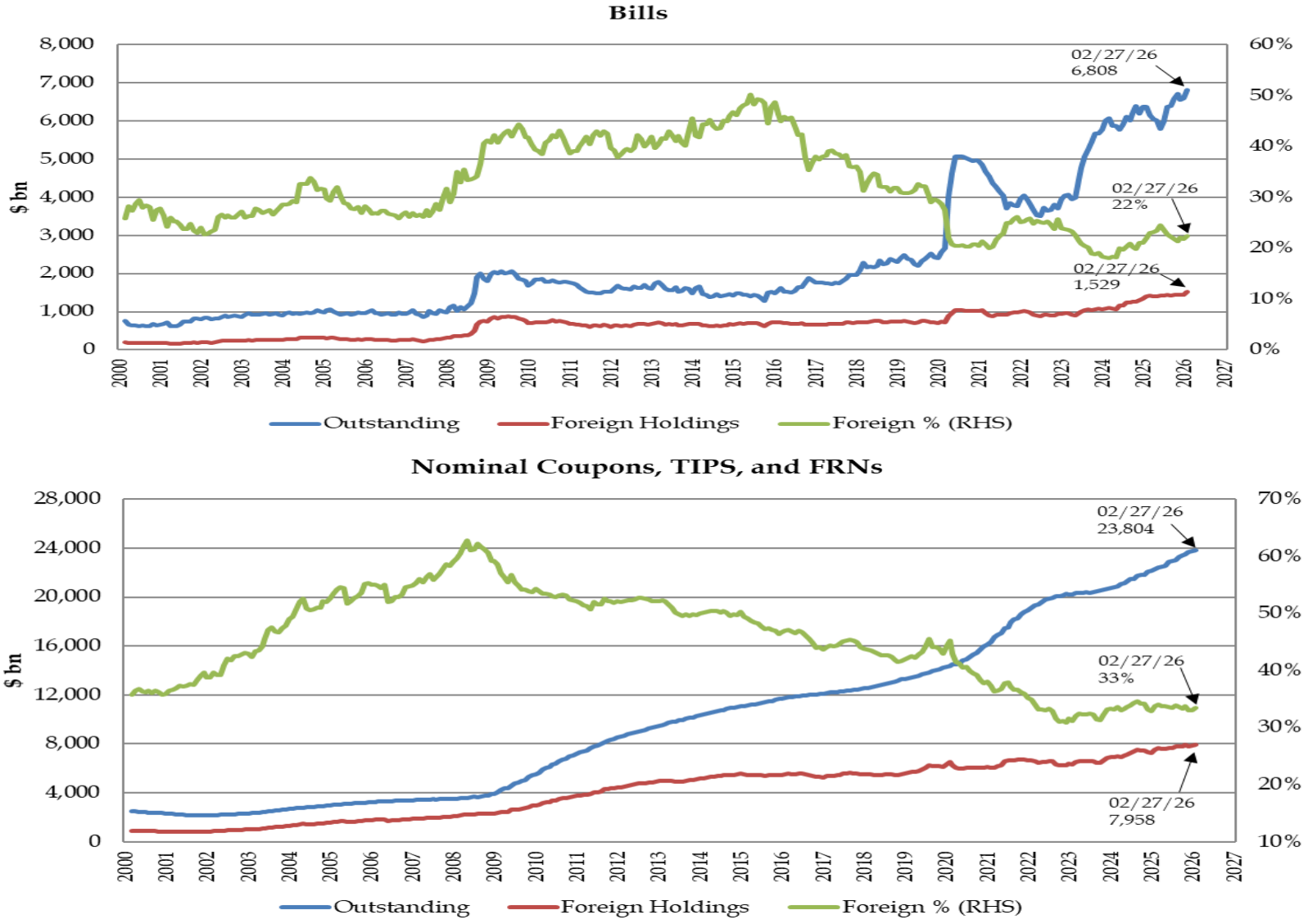
Competitive Amount Awarded excludes SOMA add-ons.

Total Foreign Awards of Treasuries at Auction, $ billions



Foreign includes both private sector and official institutions.

Total Foreign Holdings



Source: Treasury International Capital (TIC) System as of February 2026.
For more information on foreign participation data, including more details about the TIC data shown here, please refer to Treasury Presentation to TBAC "Brief Overview of Key Data Sources on Foreign Participation in the U.S. Treasury Securities Market" at the Treasury February 2019 Refunding.

Section VII:
Review of Treasury Buyback Results

CUSIP Concentration, Offer to Maximum Purchase Ratio, Buyback Amount, Buyback-Eligible and Purchased CUSIPs, etc.

The following applies to slides 47 to 55:

- The top left chart shows the total par amount purchased in each liquidity support buyback operation relative to the maximum purchase amount.
- Different colors within each bar correspond to the CUSIP-level purchase amounts.

- The top right chart shows the "offer to max" ratio for each liquidity support buyback.
- The "offer to max" ratio is the ratio of the total par amount offered (red bar) in a buyback operation to Treasury's maximum purchase amount (blue bar).

- The bottom left chart shows the count of eligible (red) and purchased (blue) CUSIPs for each liquidity support buyback operation as well as the ratio of purchased to eligible securities.

- Prior to August 2024, Treasury limited the buyback eligible population to at most 20 CUSIPs.

Summary of Treasury Buyback Results

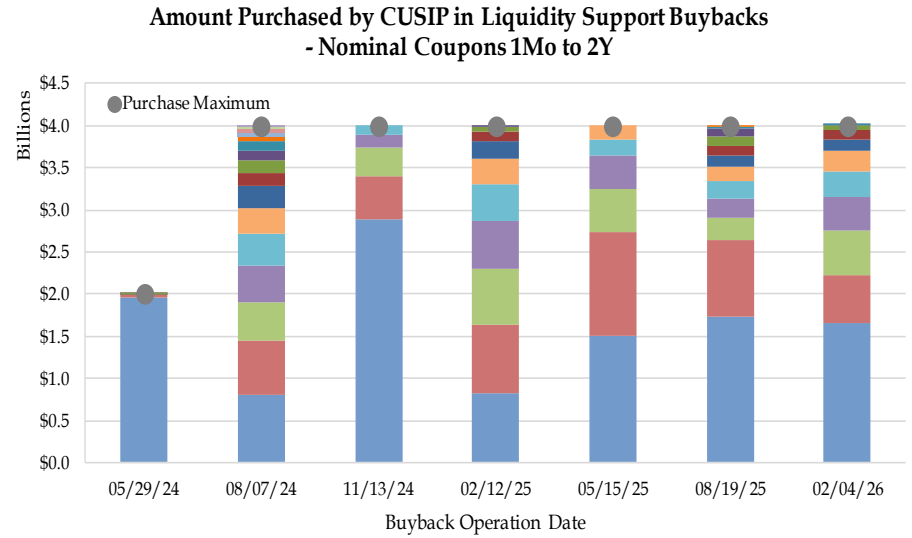
Treasury Buyback Results from 2/19/26 to 4/28/26 (Current Refunding Quarter)[1]								
Operation Type	Maturity Sector	Operation Size	Total Number of Operations	Total Par Amount Offered ($BN)	Total Purchase Maximum ($BN)	Total Par Amount Purchased ($BN)[2]	Offer to Maximum	Buyback Ratio
Formula		**A**	**B**	**C**	**D = A * B**	**E**	**F = C / D**	**G = E / D**
Cash Management	1Mo to 2Y	$15 BN	5	$195.5	$75.0	$74.7	2.61	1.00
Liquidity Support	1Mo to 2Y	$4 BN	-	-	-	-	-	-
	2Y to 3Y		1	$4.7	$4.0	$0.4	1.2	0.1
	3Y to 5Y		1	$10.4	$4.0	$2.5	2.6	0.6
	5Y to 7Y		1	$6.8	$4.0	$1.6	1.7	0.4
	7Y to 10Y		1	$3.4	$4.0	$0.1	0.8	0.0
	10Y to 20Y	$ 2 BN	3	$71.9	$6.0	$6.0	12.0	1.0
	20Y to 30Y		4	$133.0	$8.0	$6.2	16.6	0.8
	Short TIPS[3]	$750 MM	1	$2.3	$0.8	$0.7	3.1	1.0
	Long TIPS[3]	$500 MM	1	$0.8	$0.5	$0.1	1.5	0.2
Total			**18**	**$428.8**	**$106.3**	**$92.2**	4.7	0.6

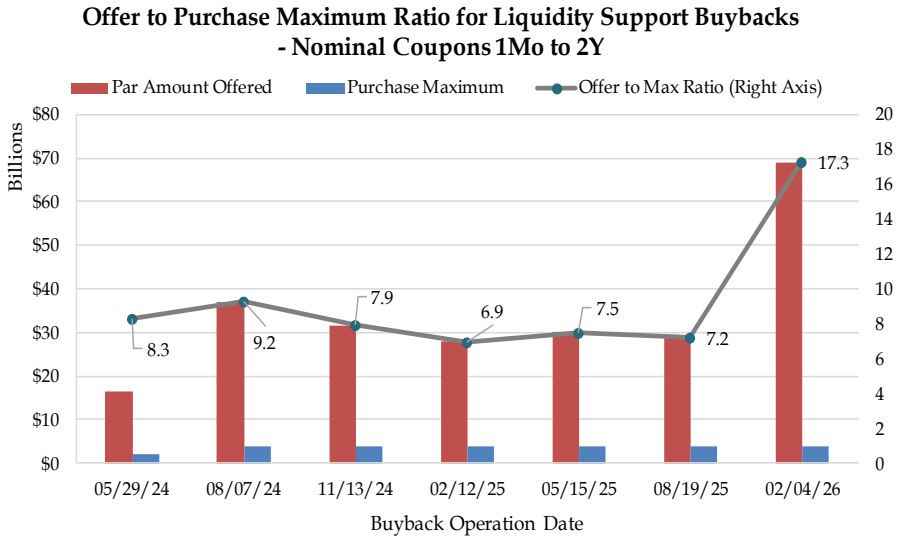
Treasury Buyback Results from 5/29/24 to 4/28/26 (All Buybacks)							
Operation Type	Maturity Sector	Total Number of Operations	Total Par Amount Offered ($BN)	Total Purchase Maximum ($BN)	Total Par Amount Purchased ($BN)	Offer to Maximum (Min | Avg |Max)	Buyback Ratio (Min | Avg |Max)
Formula			**A**	**B**	**C**	**D = A / B**	**E = C / B**
Cash Management	1Mo to 2Y	23	$603.6	$222.0	$212.4	1.4 | 2.9 | 5.2	0.3 | 0.9 | 1.0
Liquidity Support	1Mo to 2Y	7	$240.6	$26.0	$26.0	6.9 | 7.8 | 9.2	1.0 | 1.0 | 1.0
	2Y to 3Y	8	$64.6	$30.0	$17.2	1.8 | 2.4 | 4.4	0.4 | 0.7 | 1.0
	3Y to 5Y	8	$92.0	$30.0	$25.9	2.4 | 3.1 | 3.7	0.4 | 0.9 | 1.0
	5Y to 7Y	8	$52.2	$30.0	$14.6	1.0 | 1.8 | 3.2	0.1 | 0.5 | 0.9
	7Y to 10Y	8	$38.9	$30.0	$3.2	0.8 | 1.4 | 2.6	0.0 | 0.1 | 0.3
	10Y to 20Y	20	$404.0	$40.0	$40.0	3.2 | 9.7 | 15.0	1.0 | 1.0 | 1.0
	20Y to 30Y	21	$414.3	$42.0	$39.0	1.9 | 8.0 | 12.7	0.4 | 1.0 | 1.0
	Short TIPS[3]	14	$46.5	$8.3	$7.5	1.7 | 5.8 | 8.7	0.3 | 0.9 | 1.0
	Long TIPS[3]	12	$15.6	$6.0	$3.5	1.5 | 2.7 | 4.1	0.1 | 0.6 | 1.0
Total		**129**	**$1,972.2**	**$464.3**	**$389.1**	0.8 | 4.6 | 15.0	0.0 | 0.8 | 1.0

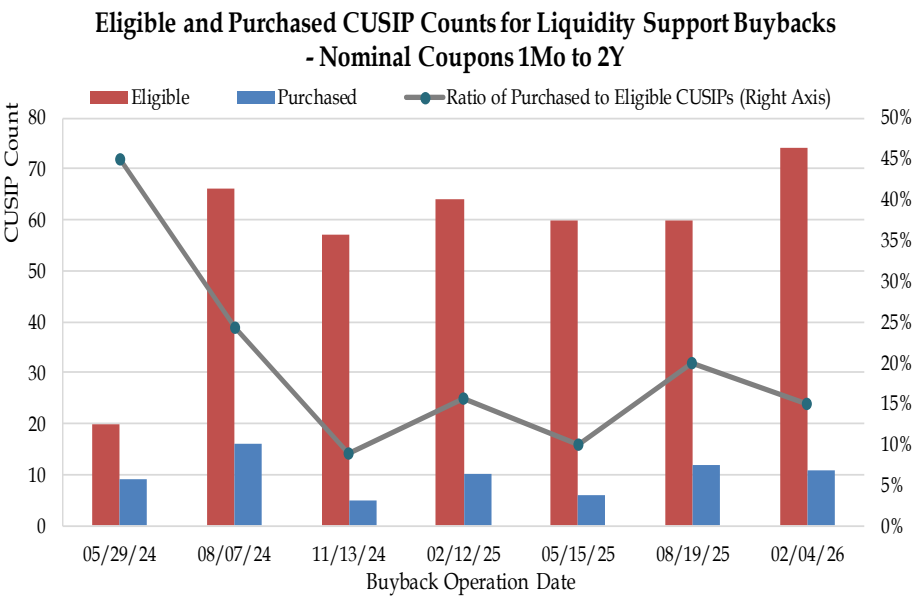
- Treasury has bought back about $17.5 BN of securities for liquidity support purposes and $74.7 BN of securities for cash management purposes in the current refunding quarter thus far, with three more liquidity support operations scheduled in early May.
- The total purchase max for cash management buybacks of $75 BN is the largest par amount in one refunding quarter since the inception of the program. Nonetheless, offer volume and competitive remained robust in each of the five operations.

(1) Data as of 4/28/26. Liquidity support buybacks for 10Y to 20Y and 1Mo to 2Y Nominal Coupons and Short TIPS are scheduled for 5/7/26, 5/8/26 and 5/14/26, respectively.
(2) Original par amount.
(3) The Short TIPS & Long TIPS buckets were previously 1Y-7.5Y & 7.5Y-30Y, respectively, but were changed to 1Y-10Y & 10Y-30Y in August 2025.

Liquidity Support Buybacks – Nominal Coupons 1Mo to 2Y

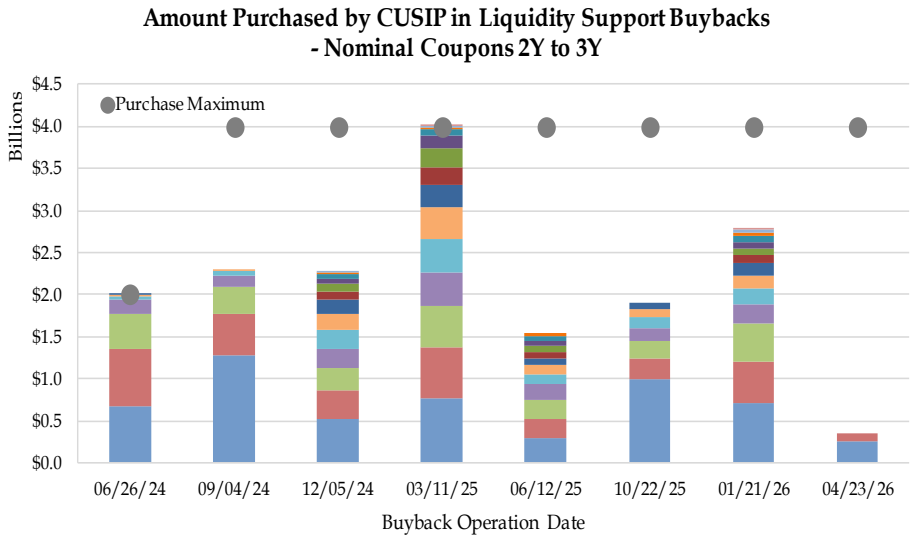


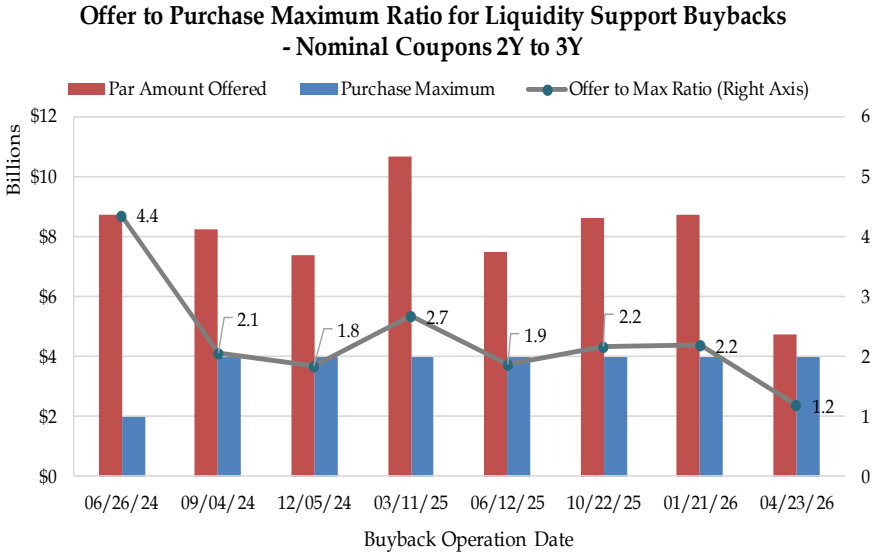


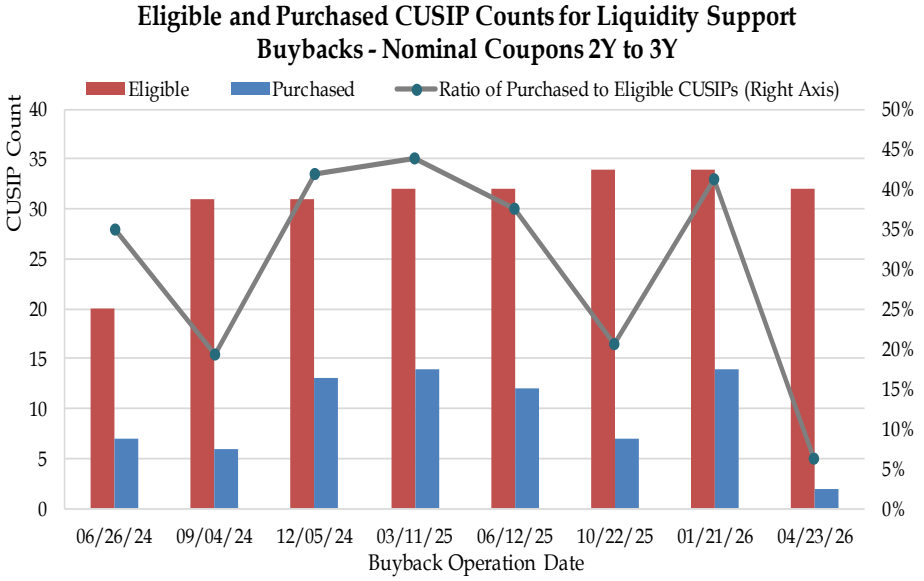


- Treasury has consistently bought back the maximum par amount in liquidity support buybacks in the 1Mo to 2Y maturity sector (top left).
- Buyback operations in this sector have been consistently oversubscribed with high offer to purchase maximum ratios (top right).

Liquidity Support Buybacks – Nominal Coupons 2Y to 3Y



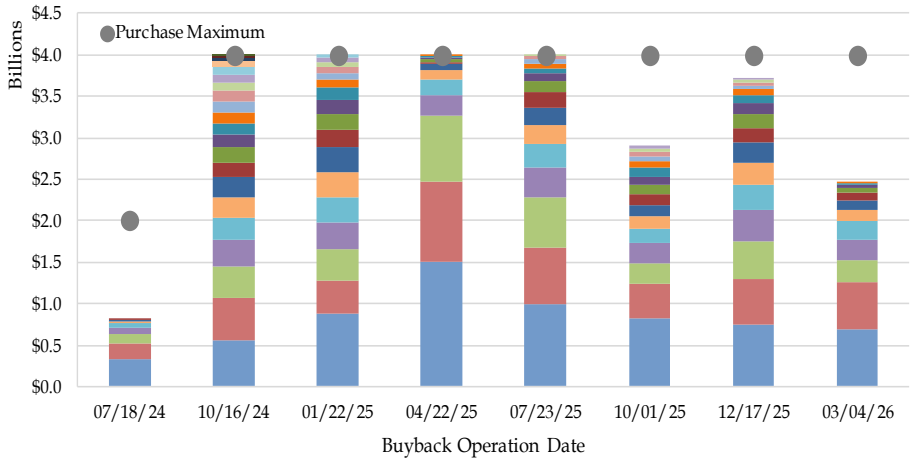




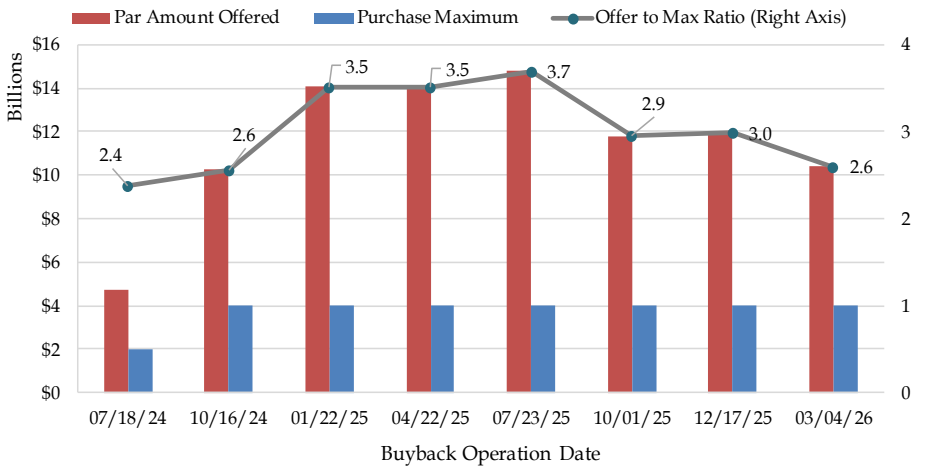
- Treasury has consistently bought back less than the maximum par amount in this maturity sector except for the operation on 3/11/25 (top left).

Liquidity Support Buybacks – Nominal Coupons 3Y to 5Y

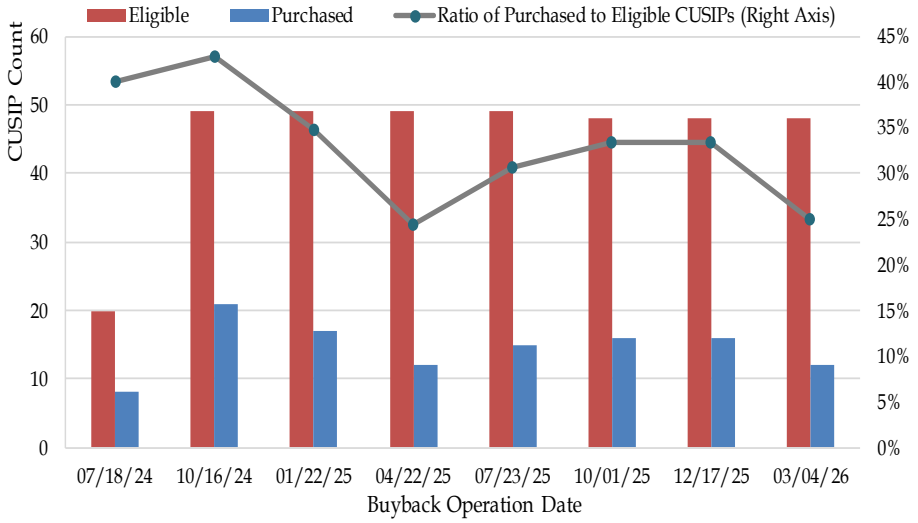
Amount Purchased by CUSIP in Liquidity Support Buybacks - Nominal Coupons 3Y to 5Y



Offer to Purchase Maximum Ratio for Liquidity Support Buybacks - Nominal Coupons 3Y to 5Y

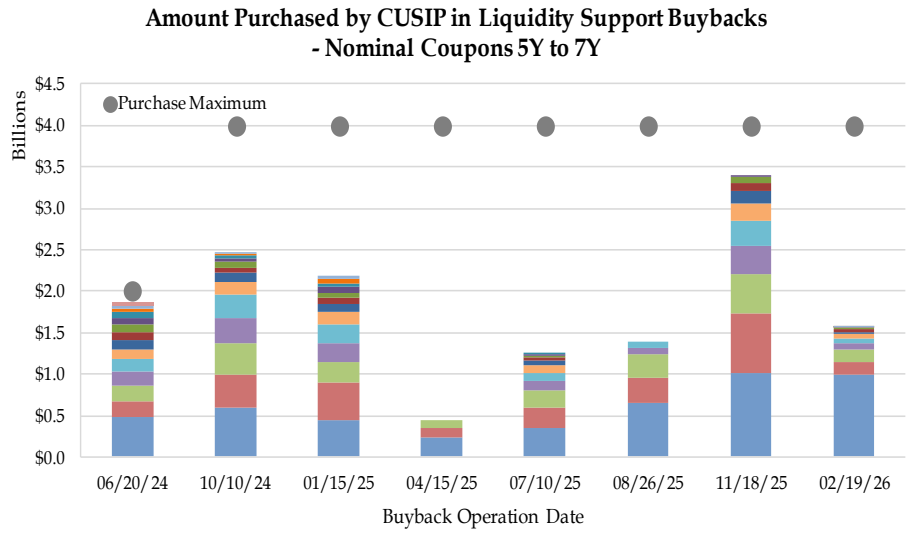


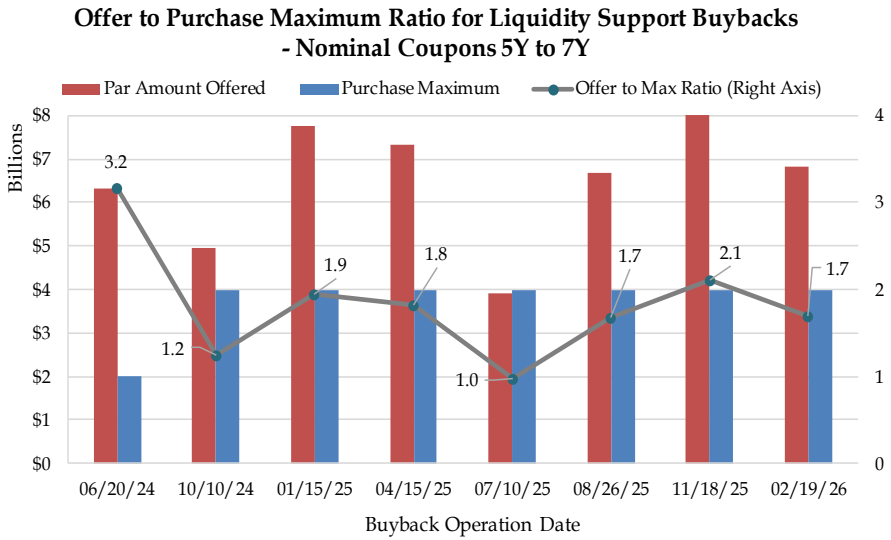
Eligible and Purchased CUSIP Counts for Liquidity Support Buybacks - Nominal Coupons 3Y to 5Y

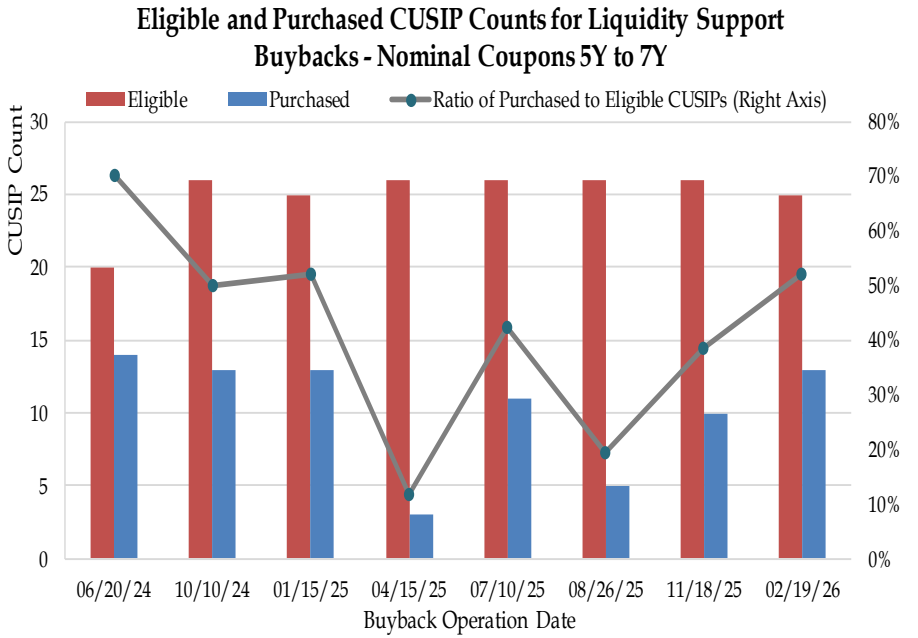


- This quarter, Treasury bought back less than the $4 billion maximum par amount in the 3Y to 5Y sector on 3/4/26.

Liquidity Support Buybacks – Nominal Coupons 5Y to 7Y

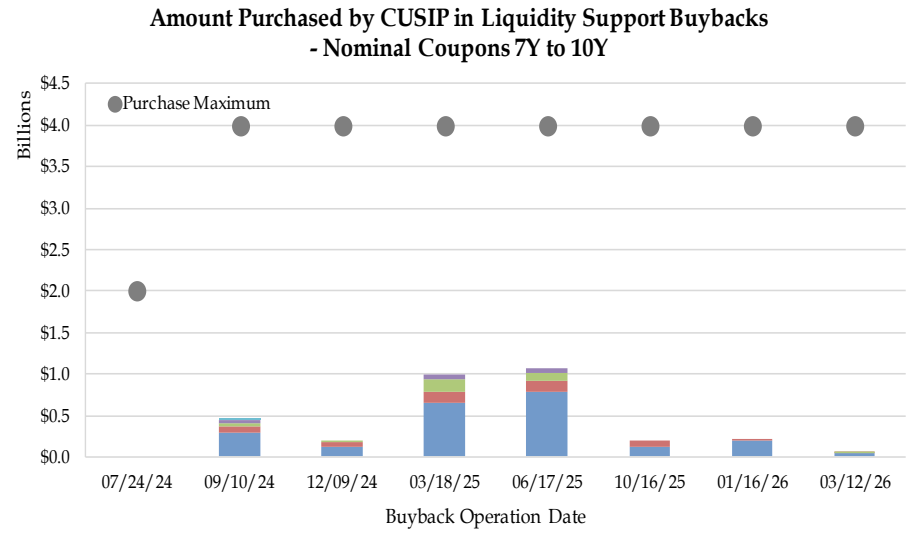


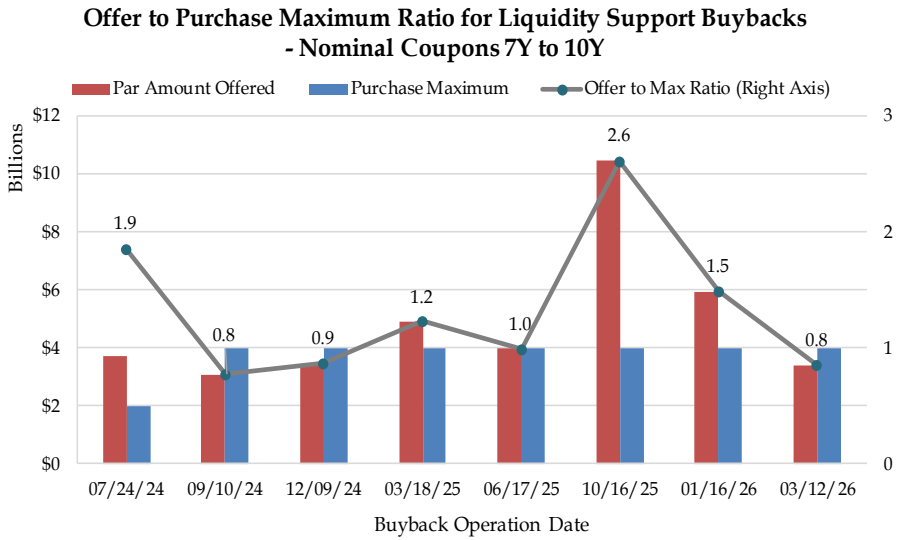


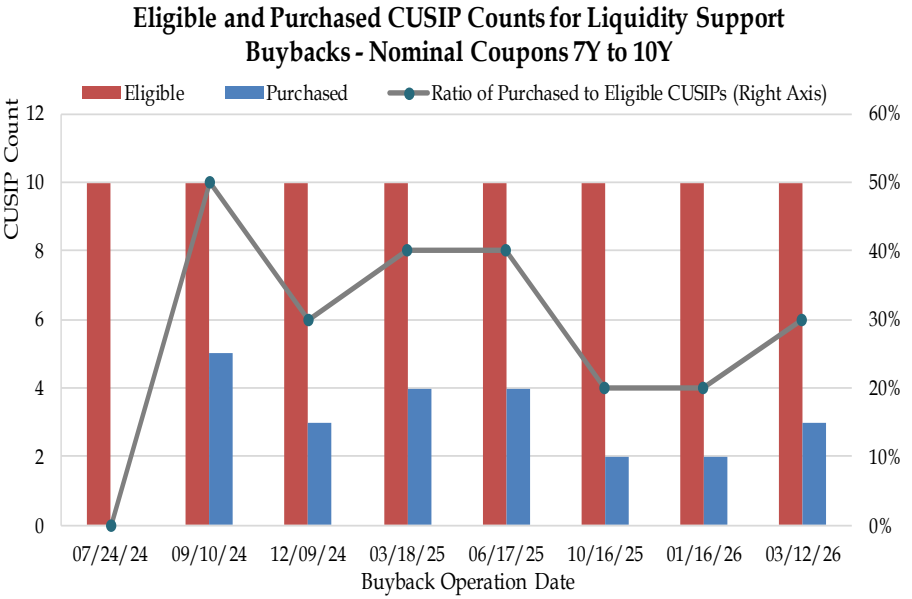


- Treasury has never purchased the maximum par amount in this sector.
- This quarter, Treasury purchased less than half of the $4 billion maximum par amount in this sector.

Liquidity Support Buybacks – Nominal Coupons 7Y to 10Y

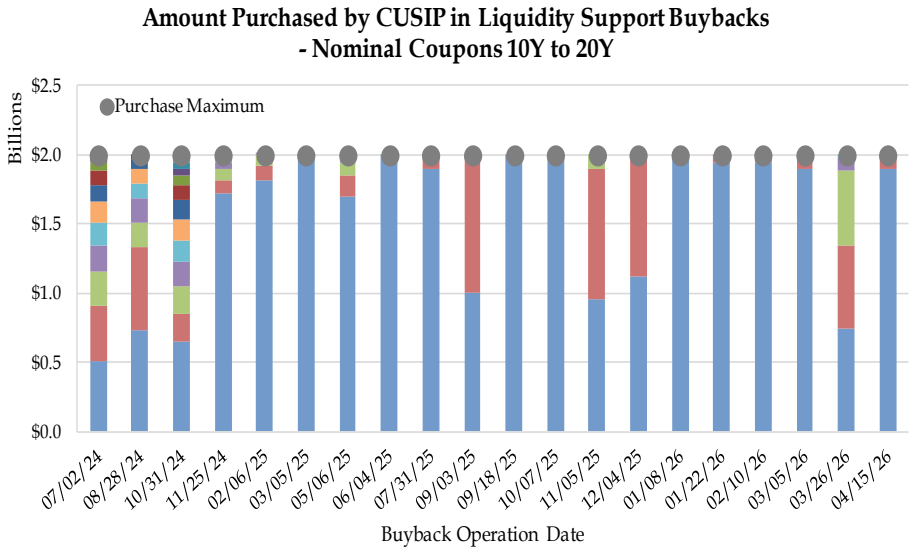


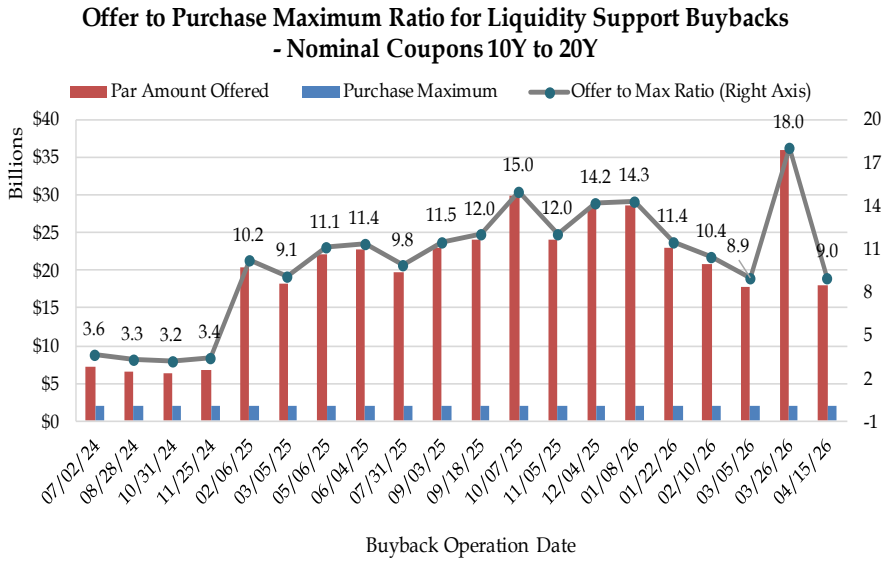


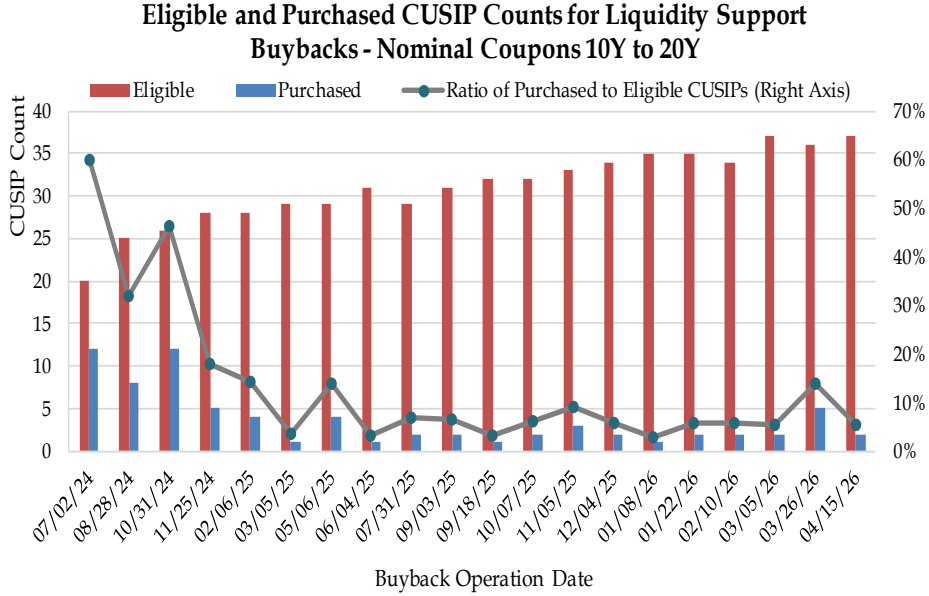


- Treasury continues to buy back significantly less than the maximum purchase amount in the 7Y to 10Y sector.

Liquidity Support Buybacks – Nominal Coupons 10Y to 20Y

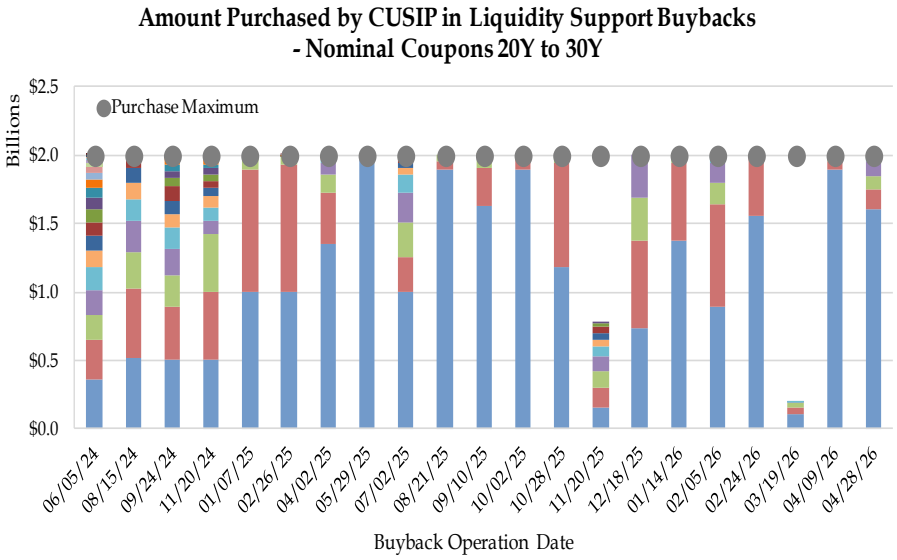


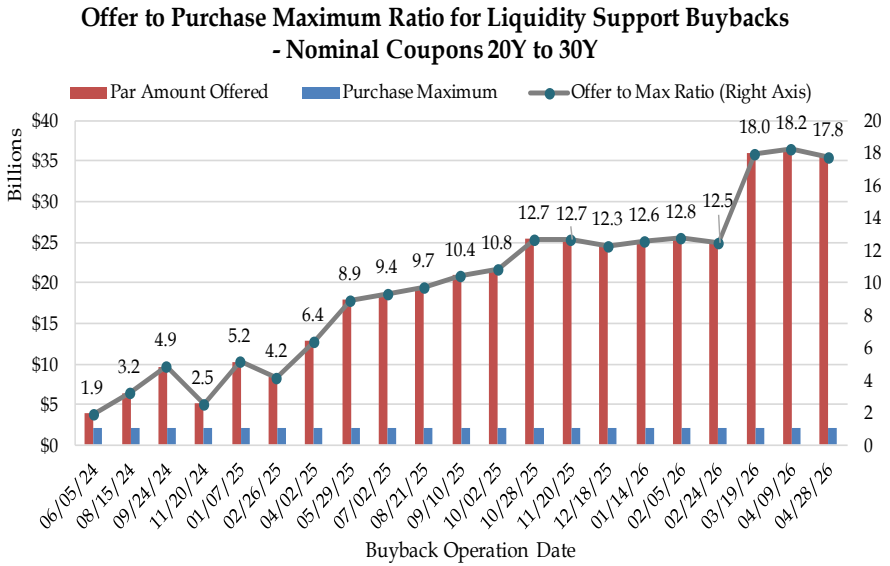


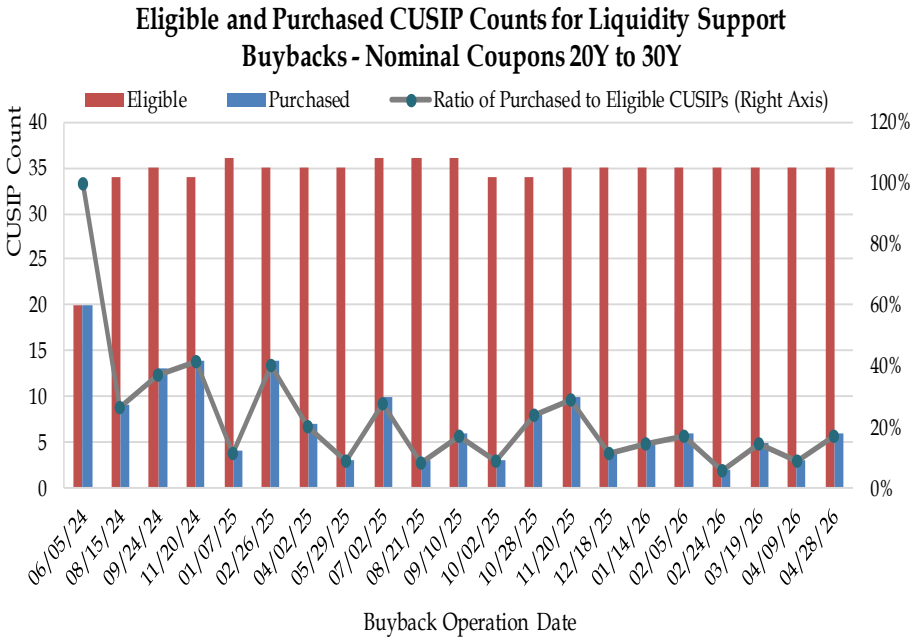


- Treasury doubled the frequency of operations in the 10Y to 20Y sector at the August 2025 refunding and continues to buy back the maximum par amount in the sector.
- Offer to max ratios in the 10Y to 20Y sector continue to be over 8x since February 2025 (top right).

Liquidity Support Buybacks – Nominal Coupons 20Y to 30Y

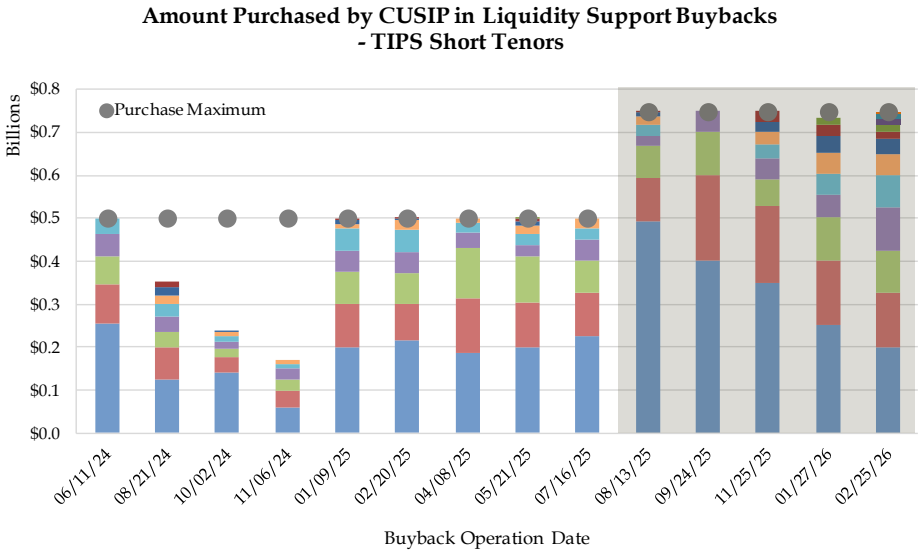


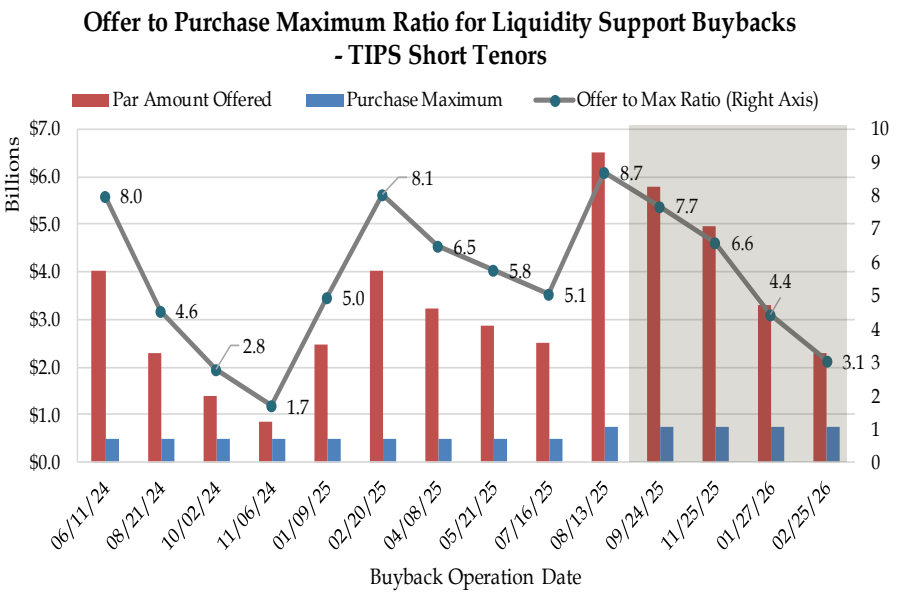


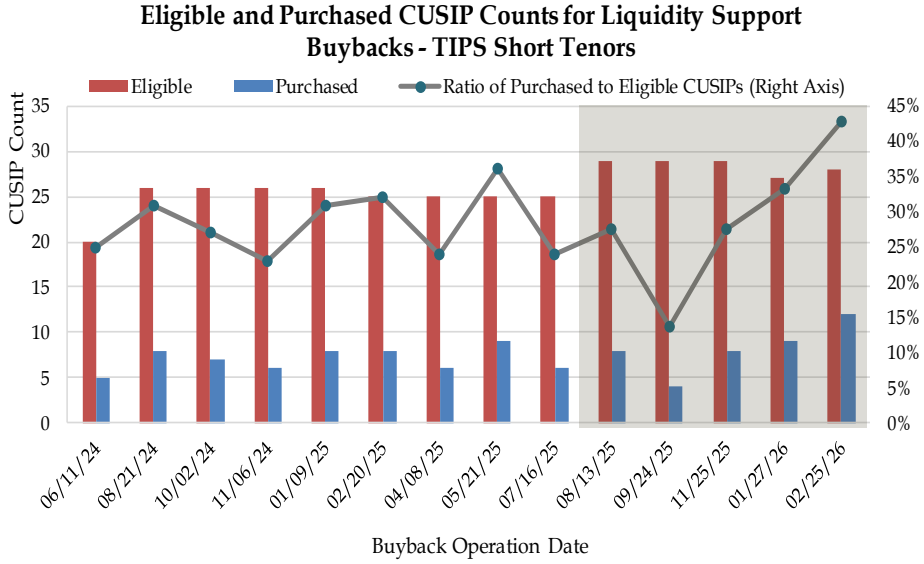


- Treasury also doubled the frequency of operations in the 20Y to 30Y sector at the August 2025 refunding and continues to generally buy back the maximum par amount in the sector.
- Offer to max ratios in the 20Y to 30Y sector continue to be ~18x since March 2026 (top right).

Liquidity Support Buybacks – TIPS Short Tenors



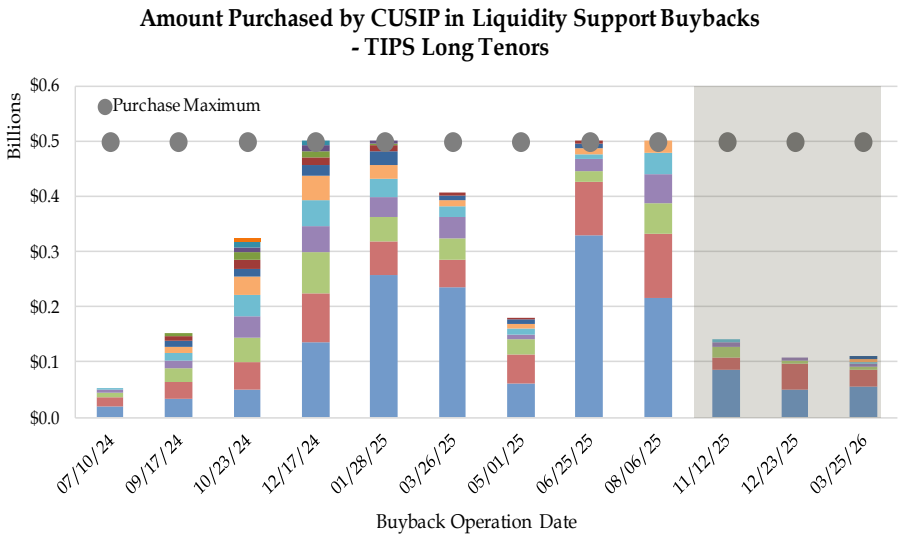


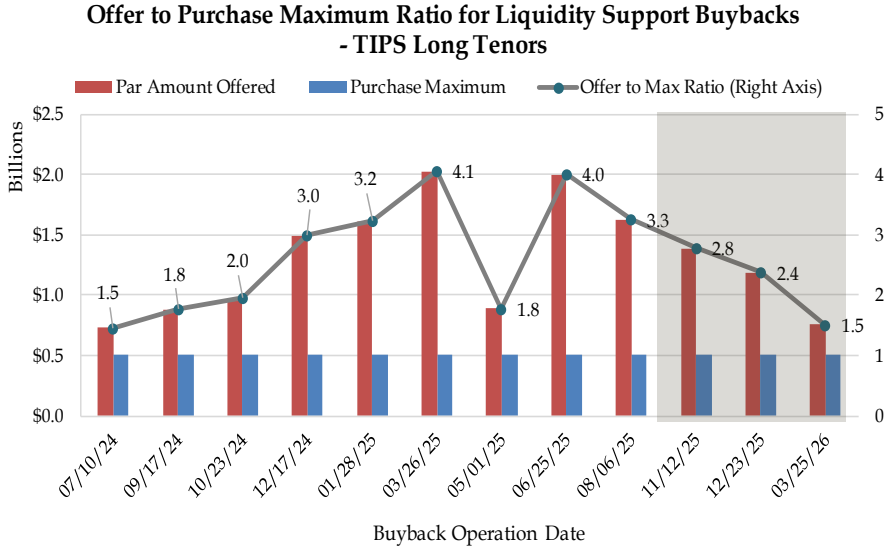


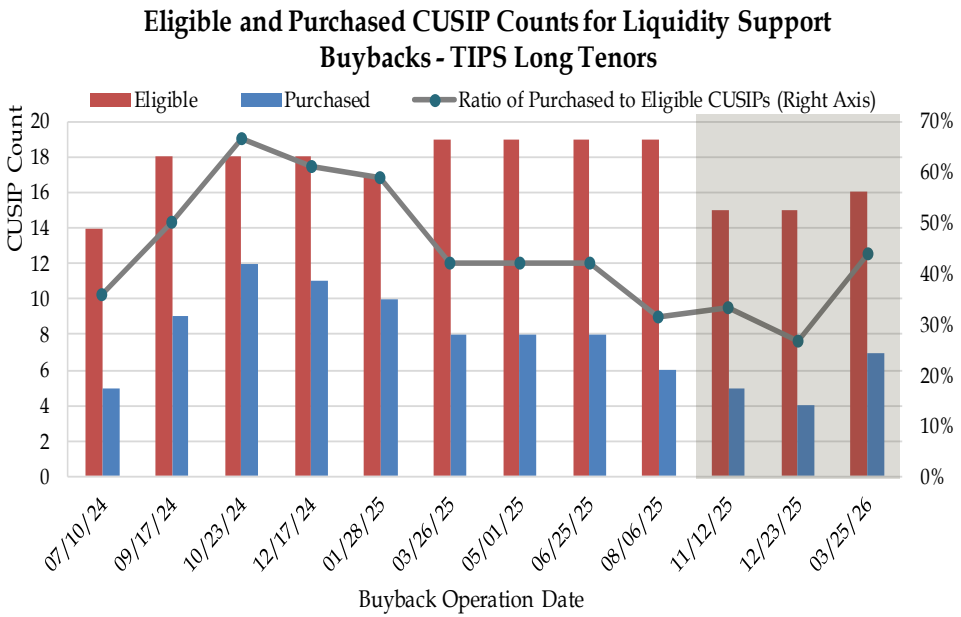
- At the August 2025 refunding, Treasury announced that it would adjust the TIPS buyback buckets by introducing a 1Y to 10Y TIPS buyback bucket to replace the existing 1Y to 7.5Y TIPS bucket. Treasury also increased the max operation size for the short-end TIPS bucket from $500 to $750 million. The shaded area represents the operations in the new 1Y to 10Y TIPS bucket.

- Treasury has continued to buy back the maximum par amount in short-end TIPS operations.

Liquidity Support Buybacks –TIPS Long Tenors



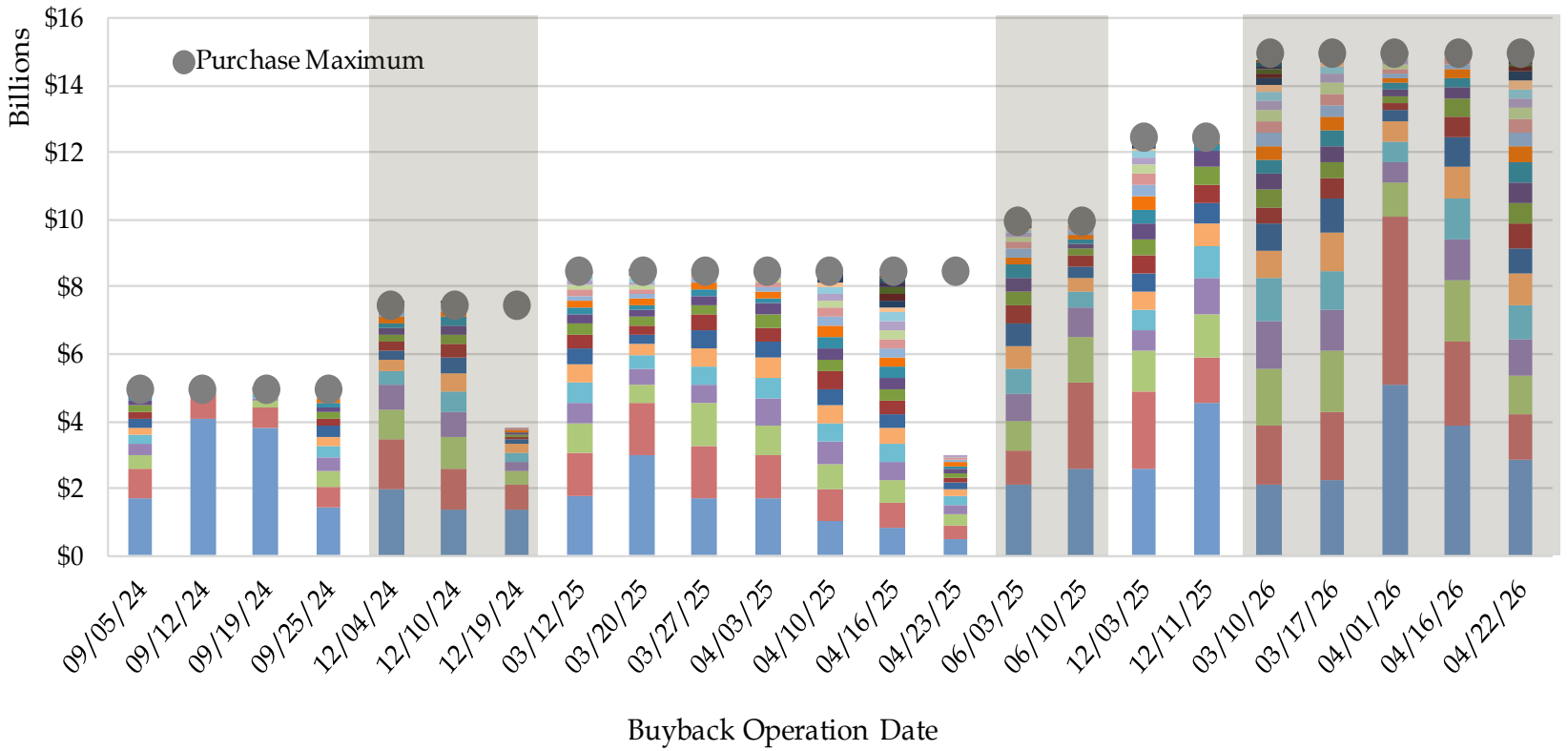




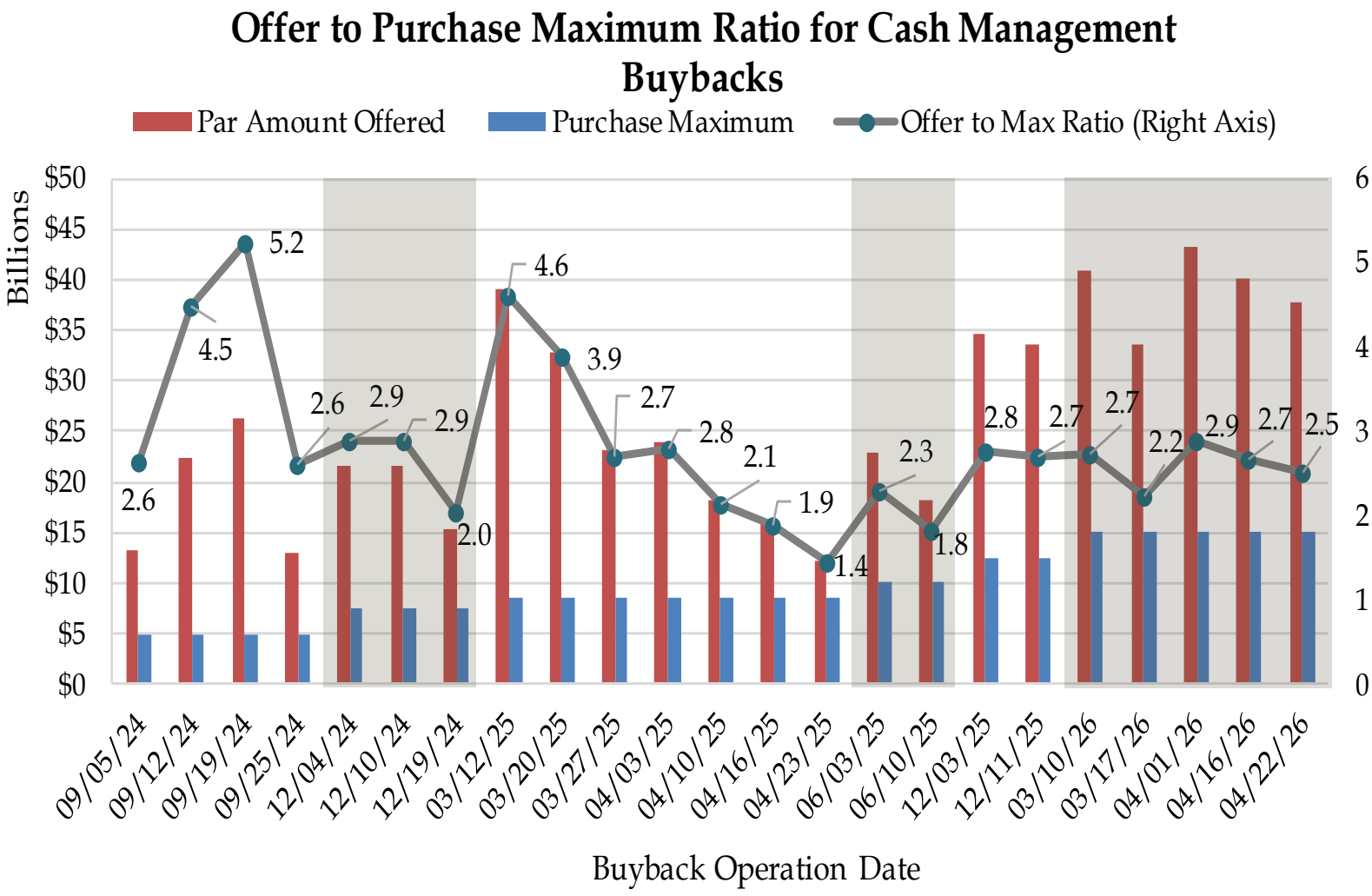
- At the August 2025 refunding, Treasury announced that it would adjust the TIPS buyback buckets by introducing a 10Y to 30Y TIPS buyback bucket to replace the existing 7.5Y to 30Y TIPS bucket. Treasury also reduced the frequency of long-end TIPS buybacks while maintaining the $500 million per operation maximum. The shaded area represents the operations in the new 10Y to 30Y TIPS bucket.

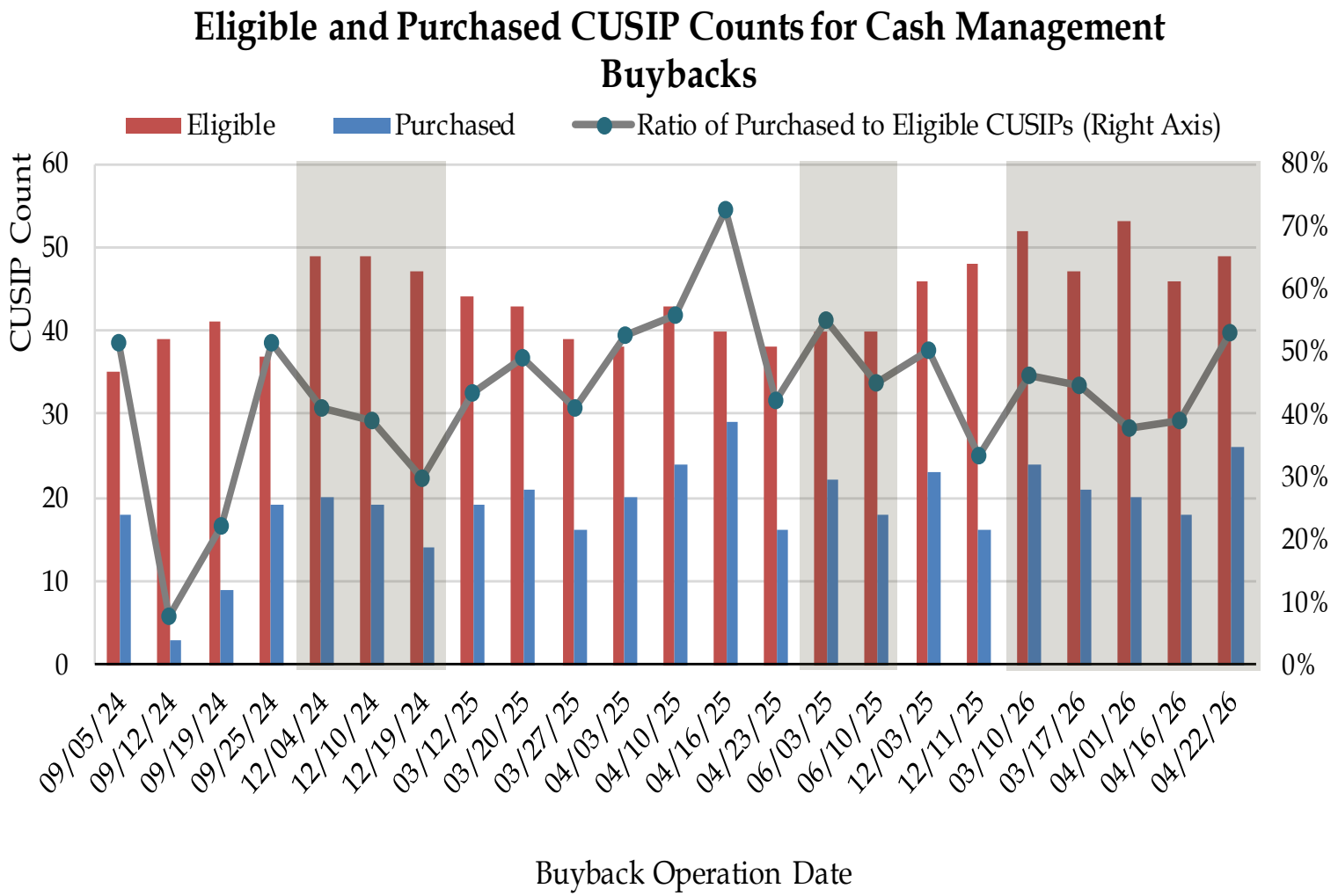
- This quarter, Treasury bought back less than the max purchase amount in this sector.

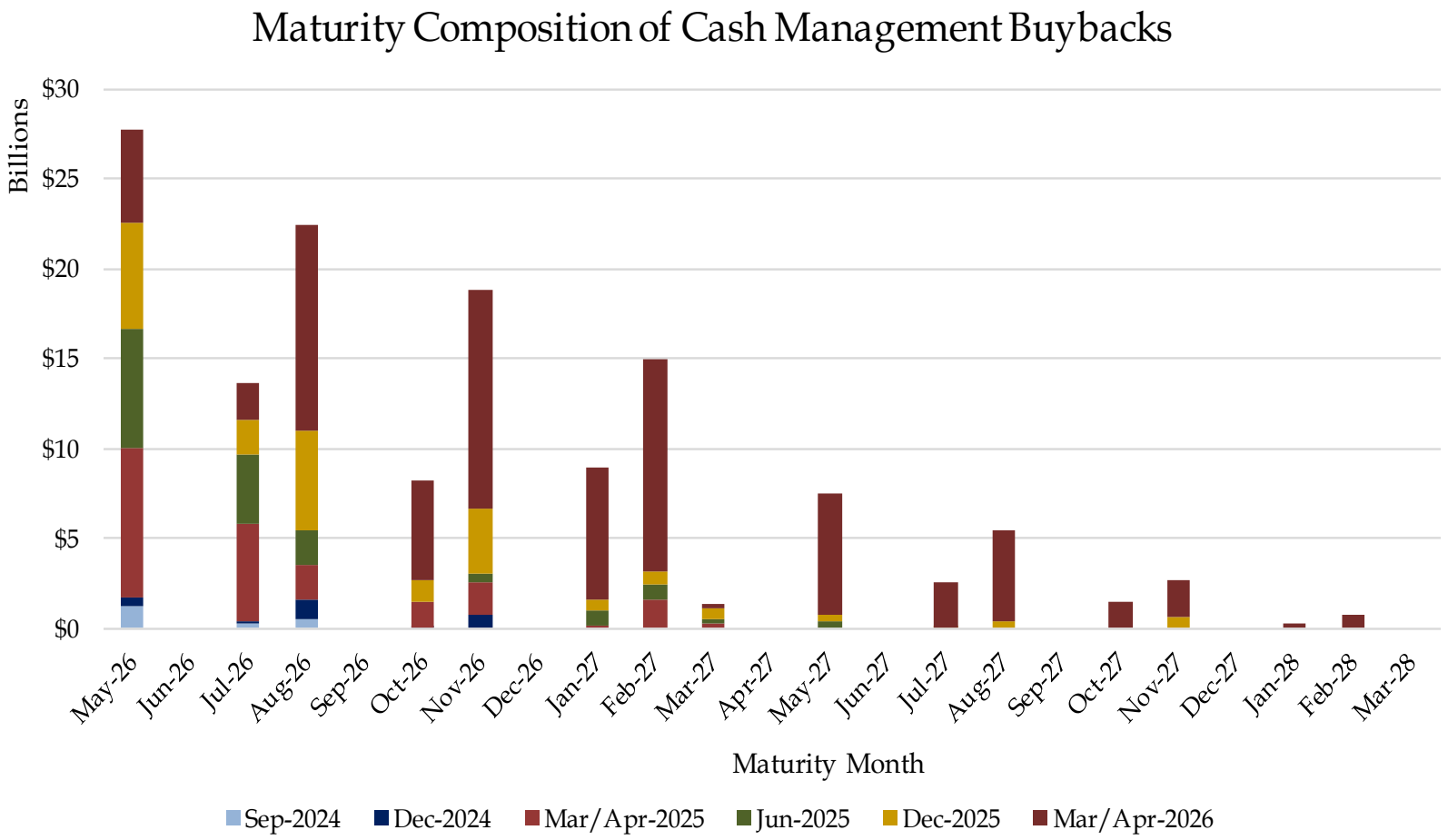
Amount Purchased by CUSIP in Cash Management Buybacks



- All cash management buybacks occur in the 1Mo to 2Y maturity sector.
- In this quarter, Treasury conducted five cash management buybacks with a higher purchase limit at $15 billion per operation. All operations were filled at max amount except the one on 3/10/26, with $14.7 billion.


Offer to Purchase Maximum Ratio for Cash Management Buybacks
Par Amount Offered
Purchase Maximum
Offer to Max Ratio (Right Axis)
Billions
$50
$45
$40
$35
$30
$25
$20
$15
$10
$5
$0
6
5
4
3
2
1
0
2.6
4.5
5.2
2.6
2.9
2.9
2.0
4.6
3.9
2.7
2.8
2.1
1.9
1.4
2.3
1.8
2.8
2.7
2.7
2.2
2.9
2.7
2.5
09/05/24
09/12/24
09/19/24
09/25/24
12/04/24
12/10/24
12/19/24
03/12/25
03/20/25
03/27/25
04/03/25
04/10/25
04/16/25
04/23/25
06/03/25
06/10/25
12/03/25
12/11/25
03/10/26
03/17/26
04/01/26
04/16/26
04/22/26
Buyback Operation Date


Eligible and Purchased CUSIP Counts for Cash Management Buybacks
Eligible
Purchased
Ratio of Purchased to Eligible CUSIPs (Right Axis)
CUSIP Count
60
50
40
30
20
10
0
80%
70%
60%
50%
40%
30%
20%
10%
0%
09/05/24
09/12/24
09/19/24
09/25/24
12/04/24
12/10/24
12/19/24
03/12/25
03/20/25
03/27/25
04/03/25
04/10/25
04/16/25
04/23/25
06/03/25
06/10/25
12/03/25
12/11/25
03/10/26
03/17/26
04/01/26
04/16/26
04/22/26
Buyback Operation Date


Maturity Composition of Cash Management Buybacks
Billions
$30
$25
$20
$15
$10
$5
$0
May-26
Jun-26
Jul-26
Aug-26
Sep-26
Oct-26
Nov-26
Dec-26
Jan-27
Feb-27
Mar-27
Apr-27
May-27
Jun-27
Jul-27
Aug-27
Sep-27
Oct-27
Nov-27
Dec-27
Jan-28
Feb-28
Mar-28
Maturity Month
Sep-2024
Dec-2024
Mar/Apr-2025
Jun-2025
Dec-2025
Mar/Apr-2026

VIII. Appendix

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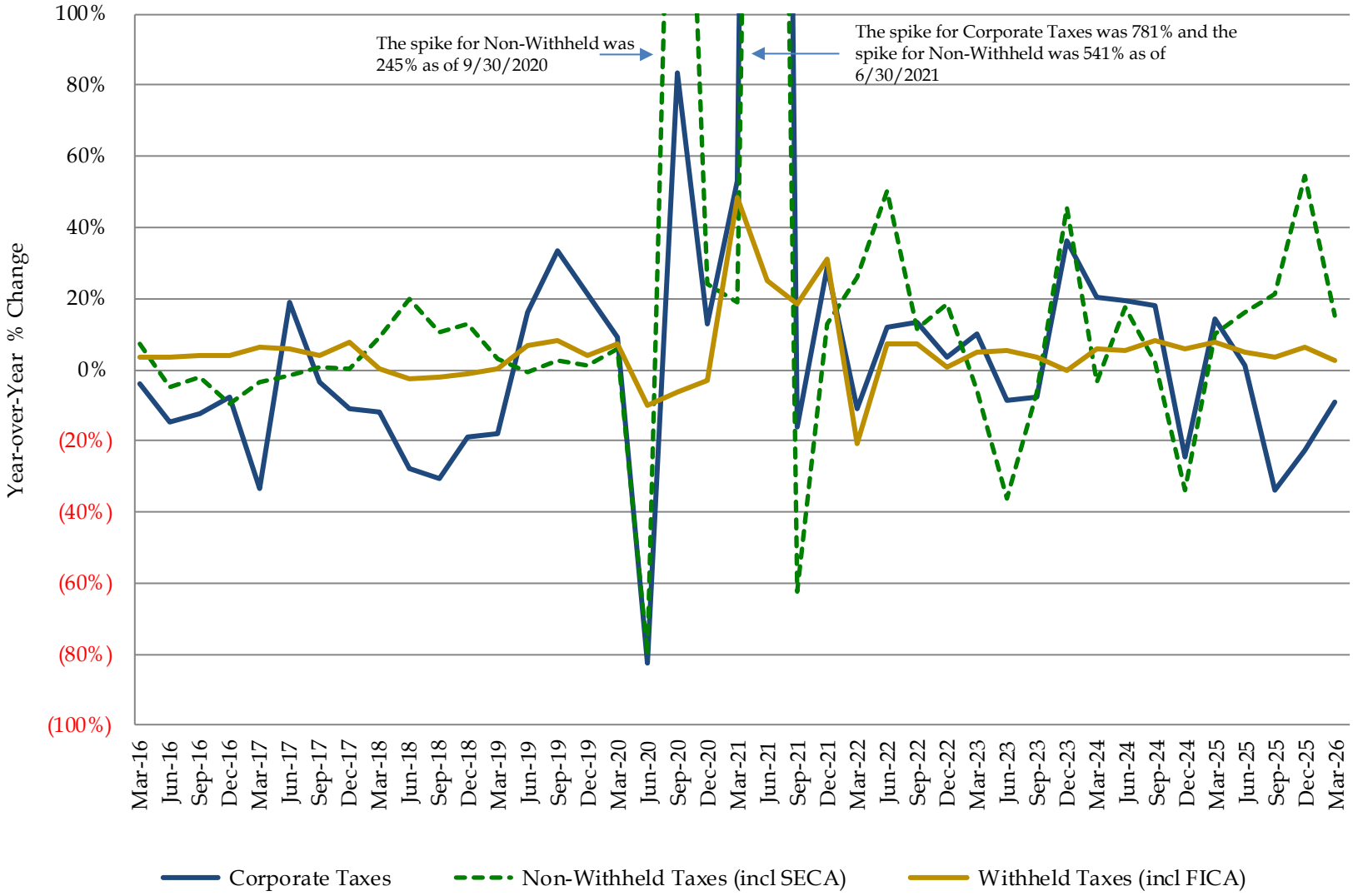
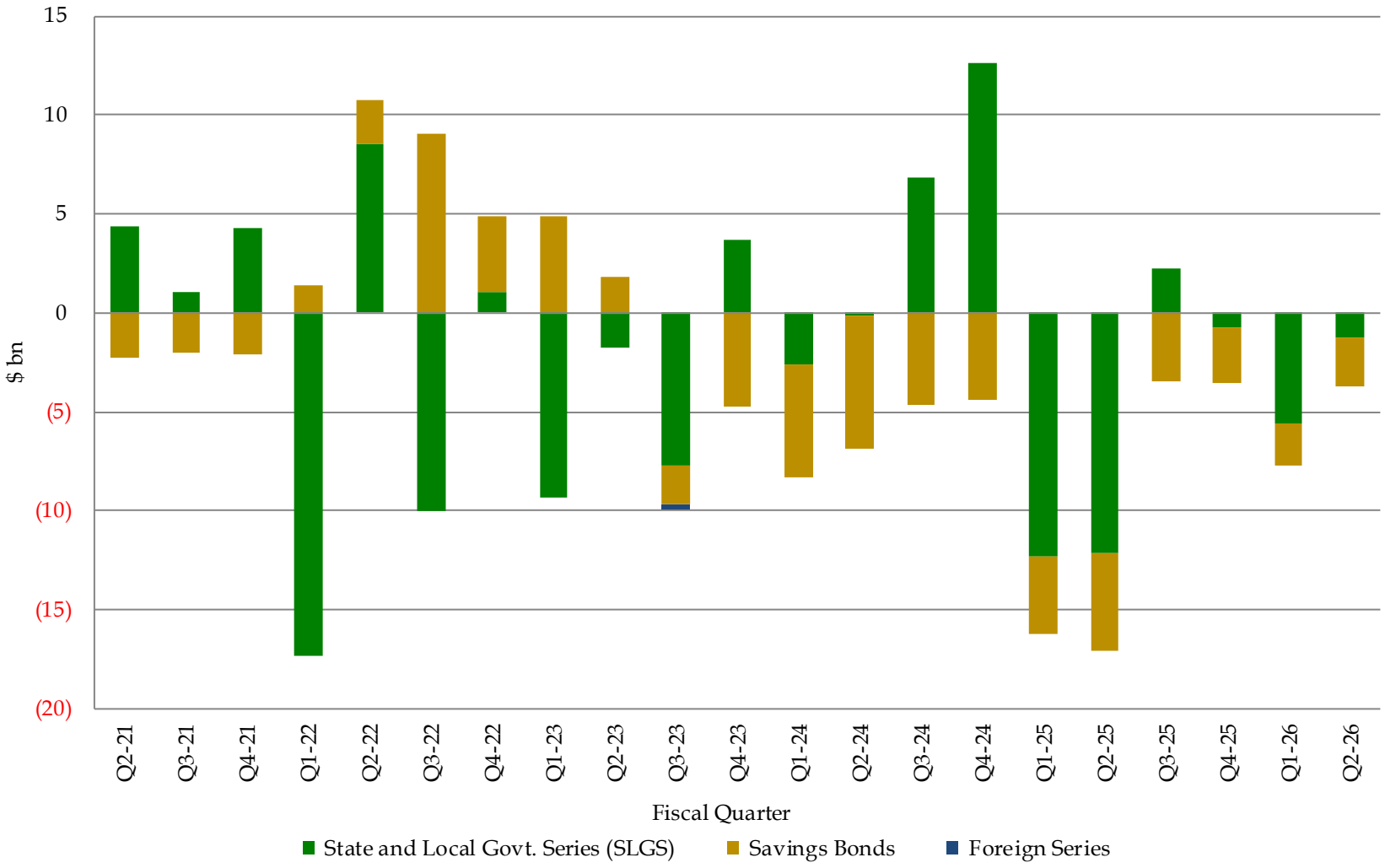
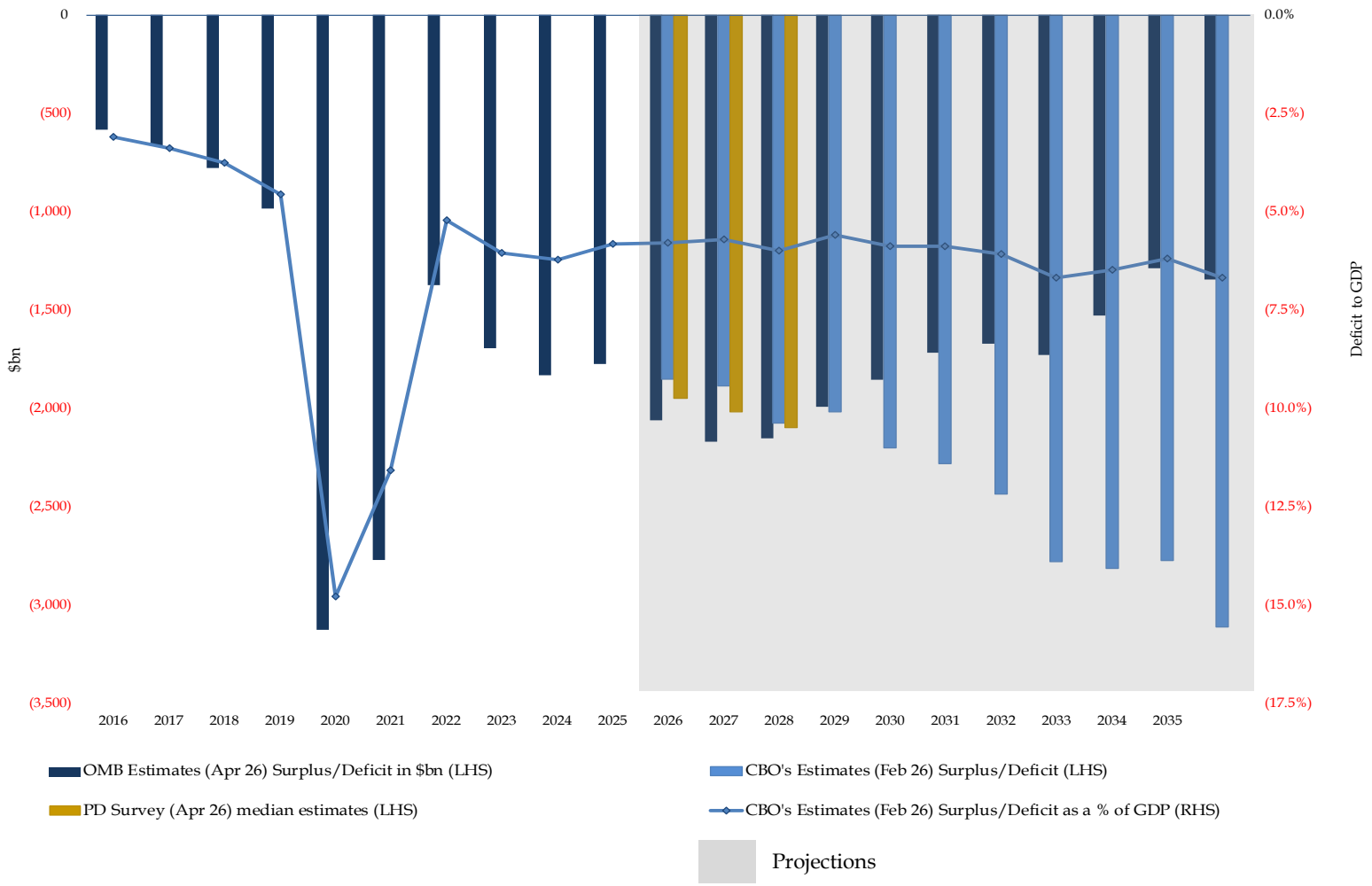
Quarterly Tax Receipts



Treasury Net Nonmarketable Borrowing



Budget Surplus/Deficit*



- OMB's deficit projections are derived from Table 8-1 and Table 15-1 of "Budget of the U.S. Government Analytical Perspectives Fiscal Year 2027," April 2026. OMB's deficit as a percentage of GDP estimates are not available for this refunding.
- CBO's deficit projections are from "The Budget and Economic Outlook: 2026 to 2036," February 2026. This CBO budget projections include the effects of all legislation that passed both Houses of Congress as of January 14, 2026.

Sources of Privately-Held Financing in FY26 Q2

January - March 2026	
Net Bill Issuance	272
Net Coupon Issuance	364
Subtotal: Net Marketable Borrowing	636
Buybacks	59
Ending Cash Balance	893
Beginning Cash Balance	873
Subtotal: Change in Cash Balance	20
Net Implied Funding for FY26 Q2*	557

[1]

Security	January - March 2026 Bill Issuance Gross	Maturing	Net	Fiscal Year-to-Date Bill Issuance Gross	Maturing	Net
4-Week	1,265	1,220	45	2,575	2,595	(20)
6-Week	1,105	1,060	45	2,235	2,220	15
8-Week	1,170	1,129	41	2,330	2,279	51
13-Week	1,148	1,104	44	2,260	2,167	93
17-Week	897	873	24	1,792	1,701	91
26-Week	1,001	941	59	1,996	1,825	170
52-Week	150	136	14	350	328	22
Bill Subtotal	6,736	6,463	272	13,538	13,115	423

Security	January - March 2026 Coupon Issuance Gross	Maturing	Net	Fiscal Year-to-Date Coupon Issuance Gross	Maturing	Net
2-Year FRN	86	84	2	172	162	10
2-Year	207	178	29	414	328	86
3-Year	174	113	61	348	233	115
5-Year	210	163	47	420	317	103
7-Year	132	76	56	264	135	129
10-Year	120	48	72	240	107	133
20-Year	42	0	42	84	0	84
30-Year	69	6	63	138	6	132
5-Year TIPS	0	0	0	50	40	10
10-Year TIPS	40	38	2	59	38	21
**20-Year TIPS	0	18	(18)	0	18	(18)
30-Year TIPS	9	0	9	9	0	9
Coupon Subtotal	1,089	725	364	2,198	1,383	815
Buyback		59			110	

Total	7,825	7,247	636	15,735	14,608	1,237

* By adjusting the change in cash balance, Treasury arrives at the net implied funding number.
** Treasury is currently not issuing 20-year TIPS.

Privately-Held Net Marketable Borrowing Definition and Calculation Example

FY 2022 Actual Deficits and Privately-Held Net Marketable Borrowing, in $ billions

	FY 2022 Actual
FY 2022 Deficit	1,375
FY 2022 + Change in Cash Balance	421
FY 2022 + Other Means of Financing (e.g. Direct Loans)	-125
FY 2022 **= Total Net Marketable Borrowing**	1,671
FY 2022 + SOMA Redemption	150
FY 2022 **= Privately-Held Net Marketable Borrowing**	1,821

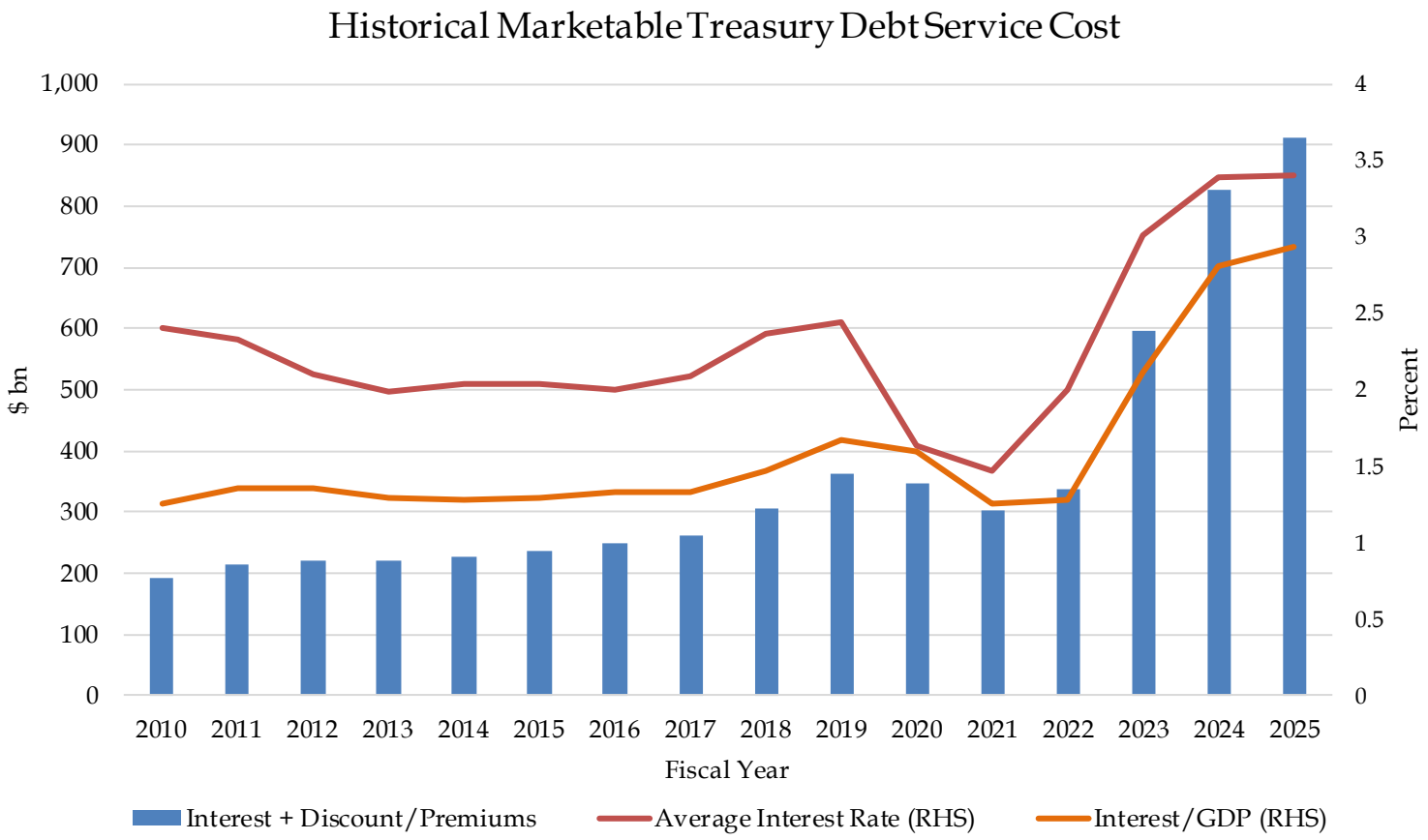
- Actual deficits are sourced from the Monthly Treasury Statement.
- Actual change in cash balance is sourced from the Daily Treasury Statement. Change in cash balance = cash balance of Sept 30, 2022 - cash balance of Sept 30, 2021
- Other Means of Financing include cash flows associated with federal credit programs, such as those related to student loans and loans to small businesses.
- Privately-Held Net Marketable Borrowing = Total Net Marketable Borrowing + SOMA Redemption
- SOMA redemption is the amount that the Federal Reserve redeems securities that Treasury has to replace with privately-held marketable borrowing. Actual SOMA redemptions amounts is from the Sources and Uses Reconciliation Table.
- Actual Privately-Held Net Marketable Borrowing is from the Sources and Uses Reconciliation Table.

FY 2026-2028 Deficits and Privately-Held Net Marketable Borrowing Estimates, in $ billions

	Primary Dealer			OFP	OMB	CBO
	25th	Median	75th			
FY 2026 Deficit	1,919	1,950	1,997		2,065	1,853
FY 2027 Deficit	2,000	2,018	2,112		2,172	1,887
FY 2028 Deficit	2,040	2,100	2,200		2,157	2,080
FY 2026 Change in Cash Balance	-41	9	9	64		
FY 2027 Change in Cash Balance	0	0	50			
FY 2028 Change in Cash Balance	0	0	45			
FY 2026 Total Net Marketable Borrowing						
FY 2027 Total Net Marketable Borrowing						
FY 2028 Total Net Marketable Borrowing						
FY 2026 Privately-Held Net Marketable Borrowing*	1,956	2,041	2,108	1,987		1,987
FY 2027 Privately-Held Net Marketable Borrowing*	2,013	2,100	2,130			1,910
FY 2028 Privately-Held Net Marketable Borrowing*	2,081	2,150	2,265			2,088
Estimates as of:		Apr-26		Apr-26	Apr-26	Feb-26

* All privately-held net marketable borrowing estimates are "normalized" using assumed Fiscal Year 2026 cash balance of $950 billion, held constant in out years.

- OMB's deficit projections are derived from Table 8-1 and Table 15-1 of "Budget of the U.S. Government Analytical Perspectives Fiscal Year 2027," April 2026. OMB's borrowing estimates are not available for this refunding.
- CBO's projections are from Table 1-3 of "The Budget and Economic Outlook: 2026 to 2036," February 2026. This CBO budget projections include the effects of all legislation that passed both Houses of Congress as of January 14, 2026.

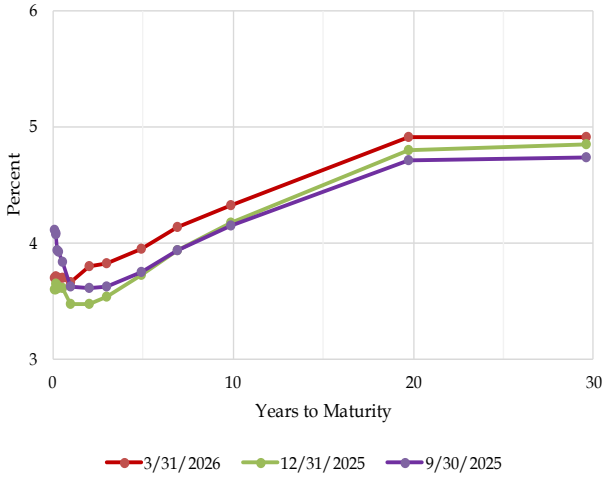


Source: https://fiscaldata.treasury.gov/datasets

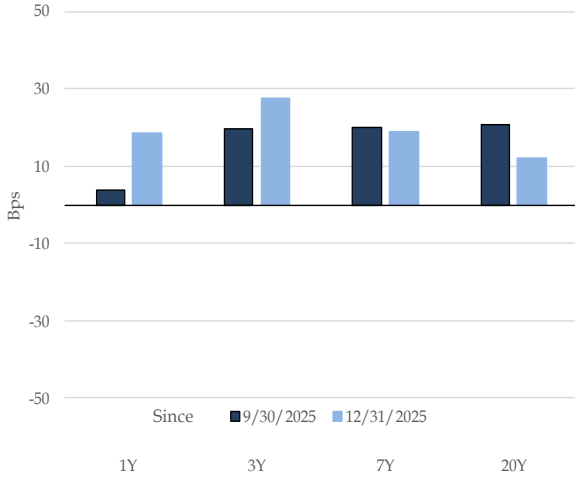
The average interest rates for total marketable debt do not include the Treasury Inflation-Indexed Securities and the Treasury Floating Rate Notes. However, they include securities from Federal Financing Bank. The average interest rates in the chart are as of corresponding fiscal year-end-dates.

Various Historical Treasury Interest Rate Metrics

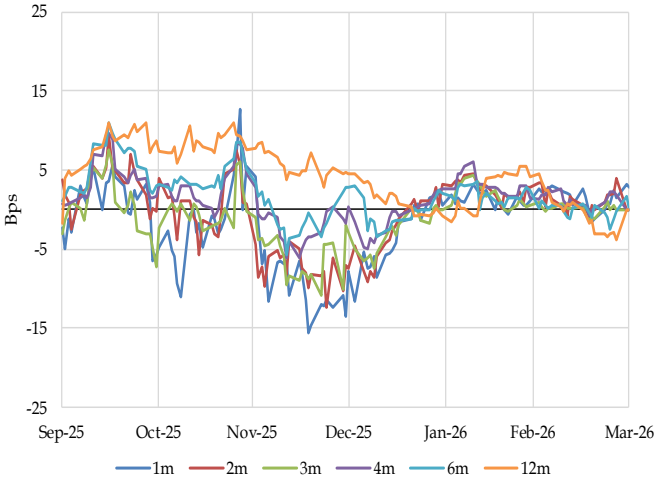
Treasury Nominal Yield Curve
as of specified dates



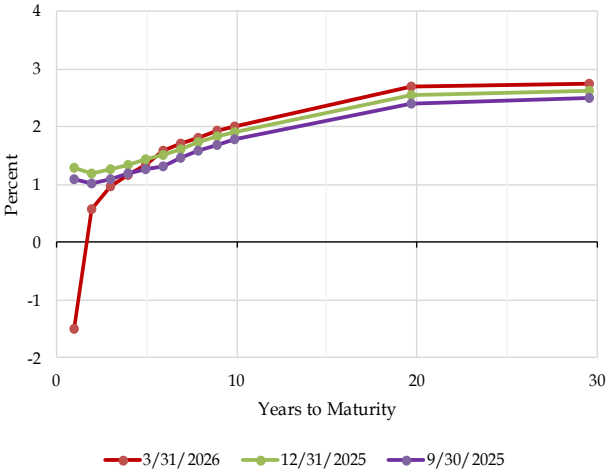
Nominal Yield Changes in Selected Tenors
Through the end of 03/31/26



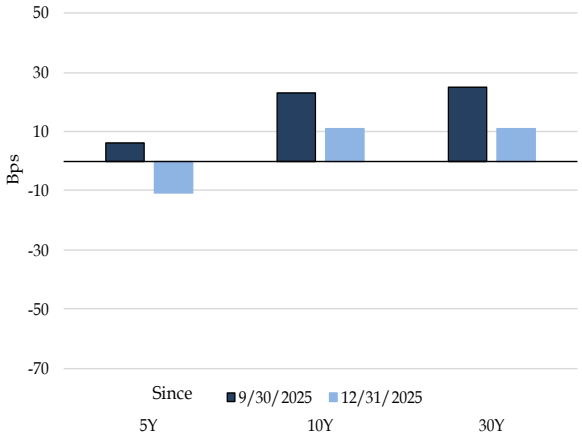
Bills-SOFR OIS spreads



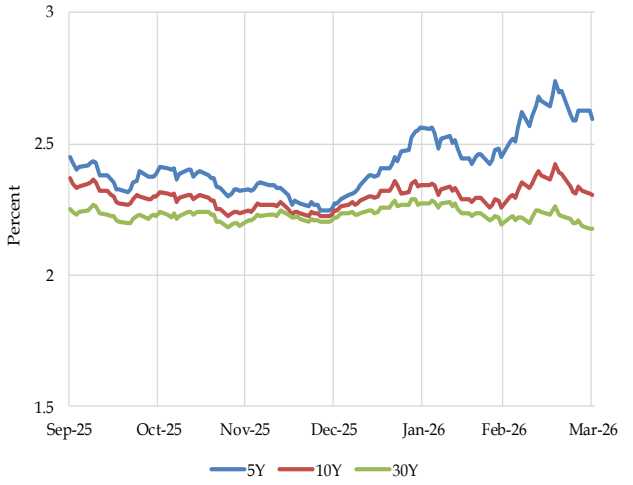
Treasury Real Yield Curve
as of specified dates



Real Yield Changes in Selected Tenors
Through the end of 03/31/26



Breakevens



Source: Bloomberg

Projected Privately-Held Net Marketable Borrowing
Assuming Private Coupon Issuance & Privately-Held Bills Outstanding Remain Constant as of 4/30/2026*

Fiscal Year	Bills*	2/3/5	7/10/20/30	TIPS	FRN	Historical/Projected Net Borrowing Capacity
2021	(1,315)	1,260	1,328	55	92	1,420
2022	(53)	744	1,027	61	42	1,821
2023	1,689	319	680	50	(38)	2,699
2024	789	713	881	85	52	2,522
2025	394	741	878	32	68	2,113
2026	595	458	904	67	10	2,034
2027	441	384	856	52	0	1,734
2028	394	302	526	29	0	1,251
2029	384	87	649	30	0	1,150
2030	375	71	705	36	0	1,187
2031	367	0	513	18	0	898
2032	359	0	510	(4)	0	865
2033	352	0	520	2	0	873
2034	345	0	438	(9)	0	774
2035	337	0	444	(25)	0	757
2036	327	0	449	(27)	0	749

*SOMA bill purchases are estimated on recent MBS principal payments and reserve management purchases.

Bills										
ssue	Settle Date	Stop Out Rate (%)	Bid-to-Cover Ratio	Competitive Awards ($bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards ($bn)	SOMA "Add Ons" ($bn)	10-Year Equivalent ($bn)*
4-Week	1/13/2026	3.550	3.18	71.4	32.0	5.6	62.4	8.6	0.2	0.8
4-Week	1/20/2026	3.595	2.92	86.8	27.3	4.0	68.7	8.2	0.3	0.9
4-Week	1/27/2026	3.630	2.86	97.2	32.6	5.2	62.2	7.8	0.3	1.0
4-Week	2/3/2026	3.630	2.86	97.0	20.0	4.8	75.3	8.0	0.4	1.0
4-Week	2/10/2026	3.630	2.85	97.0	25.0	3.3	71.7	8.0	0.3	1.0
4-Week	2/17/2026	3.630	2.78	96.8	30.8	3.1	66.1	8.2	0.3	1.0
4-Week	2/24/2026	3.625	2.94	97.0	28.4	3.9	67.7	8.0	0.3	1.0
4-Week	3/3/2026	3.625	2.88	97.1	28.7	1.9	69.4	7.9	1.8	1.0
4-Week	3/10/2026	3.640	2.89	96.9	31.4	2.5	66.1	8.1	0.3	1.0
4-Week	3/17/2026	3.640	2.77	91.9	33.0	2.0	64.9	8.1	0.7	0.9
4-Week	3/24/2026	3.615	3.12	81.7	21.4	0.8	77.8	8.3	0.6	0.8
4-Week	3/31/2026	3.620	3.03	77.1	25.7	2.7	71.6	7.9	0.9	0.8
6-Week	1/8/2026	3.560	2.89	73.2	47.1	4.2	48.8	1.8	3.9	1.1
6-Week	1/15/2026	3.585	2.97	73.5	39.0	5.9	55.1	1.5	2.5	1.1
6-Week	1/22/2026	3.630	2.42	83.5	51.0	4.8	44.2	1.5	3.7	1.2
6-Week	1/29/2026	3.635	2.64	88.4	45.2	3.9	50.8	1.6	4.2	1.3
6-Week	2/5/2026	3.640	2.83	88.5	32.9	4.7	62.4	1.6	4.1	1.3
6-Week	2/12/2026	3.635	2.96	88.4	37.1	3.8	59.1	1.6	5.2	1.3
6-Week	2/19/2026	3.640	2.75	88.6	35.7	5.4	59.0	1.4	4.1	1.3
6-Week	2/26/2026	3.635	2.82	88.3	40.3	5.2	54.5	1.7	3.4	1.3
6-Week	3/5/2026	3.640	2.88	88.5	39.4	5.1	55.5	1.5	3.0	1.3
6-Week	3/12/2026	3.635	2.98	88.4	35.5	7.5	57.1	1.6	5.1	1.3
6-Week	3/19/2026	3.635	3.02	83.4	36.3	4.0	59.6	1.6	6.8	1.3
6-Week	3/26/2026	3.635	2.98	78.5	38.6	7.3	54.1	1.5	4.0	1.2
6-Week	4/2/2026	3.645	2.89	73.5	44.4	7.3	48.3	1.5	4.3	1.1

*Approximated using prices at settlement and includes both competitive and non-competitive awards.

Bills (cont.)										
Issue	Settle Date	Stop Out Rate (%)	Bid-to-Cover Ratio	Competitive Awards ($bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards ($bn)	SOMA "Add Ons" ($bn)	10-Year Equivalent ($bn)*
8-Week	1/13/2026	3.540	2.85	77.5	37.7	5.9	56.5	2.5	0.2	1.5
8-Week	1/20/2026	3.600	2.71	88.7	35.8	4.3	59.9	1.3	0.3	1.7
8-Week	1/27/2026	3.630	2.84	92.3	34.6	4.8	60.6	2.7	0.3	1.8
8-Week	2/3/2026	3.635	2.87	91.6	27.9	4.4	67.7	3.4	0.4	1.8
8-Week	2/10/2026	3.630	2.64	91.9	41.4	4.5	54.1	3.1	0.3	1.8
8-Week	2/17/2026	3.630	2.88	92.9	35.8	4.2	60.0	2.1	0.3	1.8
8-Week	2/24/2026	3.630	2.82	92.7	40.2	5.2	54.5	2.3	0.3	1.8
8-Week	3/3/2026	3.630	2.80	91.7	43.0	3.7	53.2	3.3	1.6	1.8
8-Week	3/10/2026	3.630	3.21	93.2	30.5	3.2	66.3	1.8	0.3	1.8
8-Week	3/17/2026	3.625	3.10	87.4	32.9	3.6	63.5	2.6	0.7	1.7
8-Week	3/24/2026	3.635	2.83	81.8	37.8	4.8	57.4	3.2	0.6	1.6
8-Week	3/31/2026	3.630	3.14	76.7	34.6	6.5	59.0	3.3	0.8	1.5
13-Week	1/8/2026	3.540	2.84	81.9	39.5	7.9	52.6	4.1	4.4	2.7
13-Week	1/15/2026	3.570	2.79	82.7	41.8	8.9	49.3	3.3	2.8	2.7
13-Week	1/22/2026	3.590	2.70	86.2	36.2	6.4	57.4	2.8	3.9	2.8
13-Week	1/29/2026	3.580	2.90	85.2	31.9	6.4	61.8	3.8	4.1	2.8
13-Week	2/5/2026	3.600	2.81	87.1	36.0	7.0	57.0	1.9	4.0	2.8
13-Week	2/12/2026	3.600	2.76	87.0	33.3	6.2	60.5	2.0	5.2	2.9
13-Week	2/19/2026	3.600	2.71	86.8	35.5	6.6	57.9	2.2	4.1	2.8
13-Week	2/26/2026	3.590	3.30	85.3	25.3	6.6	68.1	3.7	3.3	2.8
13-Week	3/5/2026	3.610	3.16	87.0	33.3	6.2	60.5	2.0	3.0	2.8
13-Week	3/12/2026	3.605	2.92	87.2	37.3	7.5	55.2	1.8	5.1	2.8
13-Week	3/19/2026	3.610	2.94	86.2	38.6	4.6	56.8	2.8	7.1	2.9
13-Week	3/26/2026	3.635	2.84	85.2	34.8	5.5	59.8	3.8	4.4	2.8
13-Week	4/2/2026	3.620	2.66	85.8	44.0	8.8	47.2	3.2	5.1	2.9

*Approximated using prices at settlement and includes both competitive and non-competitive awards.

Bills (cont.)										
e	Settle Date	Stop Out Rate (%)	Bid-to-Cover Ratio	Competitive Awards ($bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards ($bn)	SOMA "Add Ons" ($bn)	10-Year Equivalent ($bn)*
17-Week	1/13/2026	3.510	3.02	66.5	40.1	6.2	53.6	2.5	0.2	2.7
17-Week	1/20/2026	3.560	3.00	68.0	41.8	5.6	52.6	1.0	0.2	2.8
17-Week	1/27/2026	3.580	2.99	68.5	33.7	4.6	61.6	0.5	0.2	2.8
17-Week	2/3/2026	3.590	2.92	67.2	44.6	7.4	48.0	1.8	0.3	2.8
17-Week	2/10/2026	3.595	2.97	68.5	46.1	6.4	47.5	0.5	0.2	2.8
17-Week	2/17/2026	3.595	3.38	68.4	36.2	6.0	57.8	0.6	0.2	2.8
17-Week	2/24/2026	3.595	3.15	68.5	33.7	5.7	60.5	0.5	0.2	2.7
17-Week	3/3/2026	3.590	3.20	67.2	40.4	5.1	54.5	1.8	1.2	2.8
17-Week	3/10/2026	3.590	3.25	68.6	33.9	4.5	61.6	0.4	0.2	2.7
17-Week	3/17/2026	3.600	3.19	68.5	36.0	5.7	58.3	0.5	0.5	2.8
17-Week	3/24/2026	3.610	3.05	68.5	40.4	5.8	53.8	0.5	0.5	2.8
17-Week	3/31/2026	3.635	2.82	66.4	36.9	3.6	59.5	2.6	0.7	2.8
26-Week	1/8/2026	3.475	3.28	75.4	25.3	11.8	62.9	1.6	4.0	4.9
26-Week	1/15/2026	3.490	3.17	75.0	21.0	9.9	69.1	2.0	2.5	4.8
26-Week	1/22/2026	3.520	2.95	75.0	32.2	6.2	61.6	2.0	3.3	4.9
26-Week	1/29/2026	3.525	3.07	74.7	24.1	8.6	67.3	2.3	3.6	4.9
26-Week	2/5/2026	3.525	3.08	75.2	31.3	9.0	59.7	1.8	3.5	4.9
26-Week	2/12/2026	3.500	3.09	75.4	21.3	8.0	70.8	1.6	4.5	5.0
26-Week	2/19/2026	3.500	3.08	75.4	22.4	9.4	68.3	1.6	3.5	4.9
26-Week	2/26/2026	3.525	3.03	74.7	28.2	10.1	61.7	2.3	2.9	4.8
26-Week	3/5/2026	3.535	3.10	75.5	25.8	9.1	65.1	1.5	2.6	4.8
26-Week	3/12/2026	3.535	3.09	75.3	25.3	8.1	66.6	1.7	4.4	4.9
26-Week	3/19/2026	3.570	2.64	75.4	41.9	7.5	50.6	1.6	6.2	5.0
26-Week	3/26/2026	3.630	3.03	75.5	24.8	10.7	64.5	1.5	3.8	4.9
26-Week	4/2/2026	3.605	2.83	75.3	30.6	8.8	60.7	1.7	4.4	5.0
52-Week	1/22/2026	3.390	3.42	48.3	25.4	2.3	72.3	1.7	2.2	6.4
52-Week	2/19/2026	3.345	2.96	48.9	29.1	3.1	67.8	1.1	2.3	6.3
52-Week	3/19/2026	3.485	3.43	48.8	31.6	3.5	64.9	1.2	4.0	6.6

*Approximated using prices at settlement and includes both competitive and non-competitive awards.

Nominal Coupons & FRNs										
Issue	Settle Date	Stop Out Rate (%)*	Bid-to-Cover Ratio	Competitive Awards ($bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards ($bn)	SOMA "Add Ons" ($bn)	10-Year Equivalent ($bn)**
2-Year	2/2/2026	3.580	2.75	68.6	7.3	28.3	64.4	0.4	4.9	17.6
2-Year	3/2/2026	3.455	2.63	68.7	9.8	34.3	55.9	0.3	8.3	18.2
2-Year	3/31/2026	3.936	2.44	68.4	24.1	16.5	59.4	0.6	7.1	18.1
3-Year	1/15/2026	3.609	2.65	57.5	14.0	29.5	56.5	0.5	16.9	26.3
3-Year	2/17/2026	3.518	2.62	57.7	10.9	31.9	57.1	0.3	16.4	26.2
3-Year	3/16/2026	3.579	2.55	57.8	19.5	20.7	59.8	0.2	0.0	20.2
5-Year	2/2/2026	3.823	2.34	69.9	10.8	28.5	60.7	0.1	4.9	42.2
5-Year	3/2/2026	3.615	2.32	69.9	12.8	24.7	62.5	0.1	8.4	43.9
5-Year	3/31/2026	3.980	2.29	69.8	15.6	22.5	61.9	0.2	7.2	43.3
7-Year	2/2/2026	4.018	2.45	43.9	10.9	22.2	66.9	0.1	3.1	35.6
7-Year	3/2/2026	3.790	2.50	44.0	10.4	26.0	63.6	0.0	5.3	37.0
7-Year	3/31/2026	4.255	2.43	43.9	12.4	25.0	62.6	0.1	4.5	36.4
10-Year	1/15/2026	4.173	2.55	38.9	5.8	24.5	69.6	0.1	11.4	50.3
10-Year	2/17/2026	4.177	2.39	41.8	13.4	22.1	64.5	0.2	11.9	54.8
10-Year	3/16/2026	4.217	2.45	38.9	12.7	12.8	74.5	0.1	0.0	39.0
20-Year	2/2/2026	4.846	2.86	13.0	6.2	29.1	64.7	0.0	0.9	21.8
20-Year	3/2/2026	4.664	2.36	15.9	17.6	27.2	55.2	0.1	1.9	28.1
20-Year	3/31/2026	4.817	2.76	13.0	9.2	21.6	69.2	0.0	1.3	22.4
30-Year	1/15/2026	4.825	2.42	22.0	12.0	21.3	66.8	0.0	6.4	55.0
30-Year	2/17/2026	4.750	2.66	25.0	5.9	24.2	69.9	0.0	7.1	62.7
30-Year	3/16/2026	4.871	2.45	22.0	9.4	27.2	63.4	0.0	0.0	42.1
2-Year FRN	2/2/2026	0.099	3.16	30.0	34.3	0.0	65.7	0.0	2.1	0.0
2-Year FRN	2/27/2026	0.099	3.01	28.0	41.5	0.7	57.8	0.0	0.0	0.0
2-Year FRN	3/27/2026	0.115	2.78	28.0	49.1	0.0	50.9	0.0	0.0	0.0

TIPS										
Issue	Settle Date	Stop Out Rate (%)	Bid-to-Cover Ratio	Competitive Awards ($bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards ($bn)	SOMA "Add Ons" ($bn)	10-Year Equivalent ($bn)**
10-Year TIPS	1/30/2026	1.940	2.38	20.9	12.2	20.4	67.4	0.1	0.0	23.4
10-Year TIPS	3/31/2026	1.896	2.47	19.0	7.5	24.0	68.5	0.0	2.0	22.9
30-Year TIPS	2/27/2026	2.473	2.75	9.0	2.5	19.2	78.3	0.0	0.0	23.1

*FRNs are reported on discount margin basis.
**Approximated using prices at settlement and includes both competitive and non-competitive awards.
For TIPS 10-Year equivalent, a constant auction BEI is used as the inflation assumption.

Central Clearing Implementation

May 2026

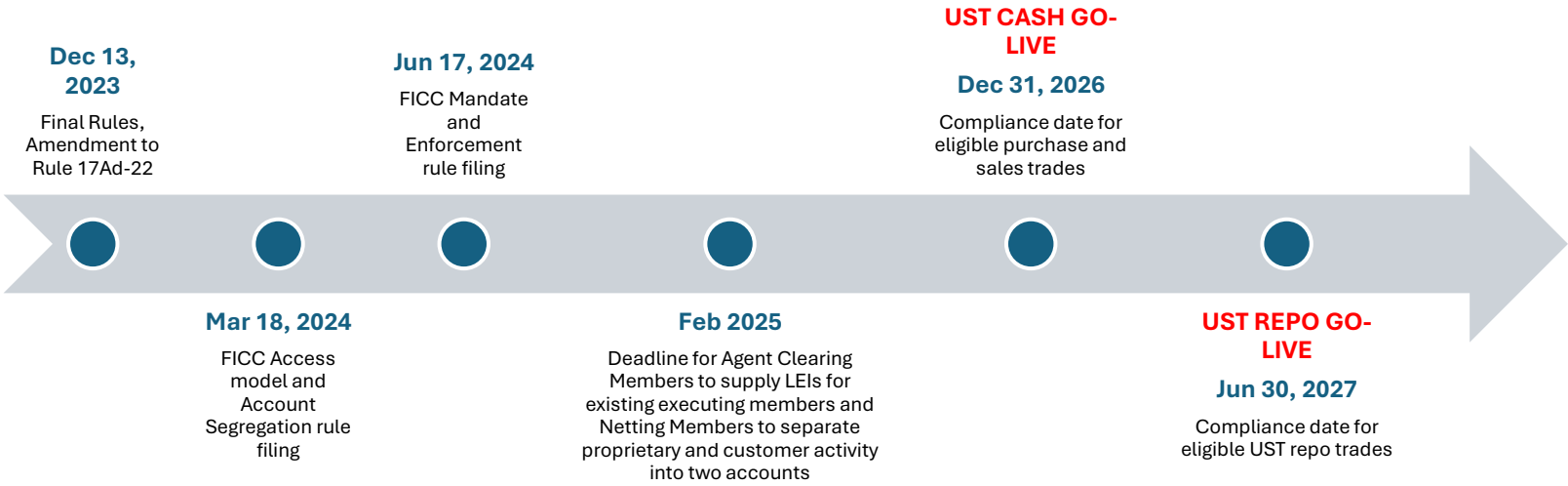
Central Clearing Implementation: In February 2025, the Committee discussed SEC rules intended to expand central clearing of Treasury security and repo transactions and associated market developments. Since that time, the SEC has extended implementation deadlines by one year and taken additional steps to clarify the rules and facilitate market implementation. The SEC has also approved two additional clearinghouses for Treasury securities. Please comment on the current state of market adoption of central clearing in the Treasury securities market and the readiness of market participants for the implementation deadlines in December 2026 (securities) and June 2027 (repo). What steps, if any, could the official sector take to support a smooth transition?

Executive Summary

- In December 2023, the Securities and Exchange Commission (SEC) adopted significant rule changes that will mandate the central clearing of specific secondary market transactions in U.S. Treasury securities. This initiative is designed to protect investors, mitigate systemic risk, and enhance the operational efficiency of the Treasury market.
- The industry has made significant strides in preparation for the implementation dates, which the SEC extended to December 31, 2026, for cash Treasury clearing and June 30, 2027, for clearing of Treasury repo.
- Overall clearing volumes in Treasuries have seen significant growth in the last 12 months across both the cash and repo markets.
- Notable progress has been made in identifying and addressing several issues across access, implementation, regulation, operations and legal.
- While some of the issues have been resolved over the past year, there are still open issues that need to be addressed well in advance of the deadline. Those include two significant scoping issues surrounding exemptions for inter-affiliates and extraterritorial issues for non-U.S. participants.
- The SEC has been engaged with the industry on these issues and are actively facilitating closure. A timely resolution of these issues will allow the market to focus on remaining implementation issues to ensure broad access prior to the deadlines.
- Overall, the industry is resolved to meeting the central clearing deadlines and being compliant but with operational builds continuing, legal documentation still being negotiated and some unresolved issues, it is possible that clearing will not be available to all participants in all regions by the deadline for the mandate.

Extension of the Clearing Deadline by the SEC

- On February 25, 2025, the SEC granted a one-year extension to the implementation deadlines for its central clearing mandate for U.S. Treasury securities.
- This extension provided market participants with additional time to navigate the complexities of the new regulatory landscape.
- Among some of their concerns were:
  - Operational and technological complexity
  - More time to develop the Done-away market structure
  - Major scoping issues that needed to be resolved; mixed collateral, inter-affiliate transaction, extraterritorial reach
  - Legal and documentation issues
- These are the issues that the market has been working through since the extension was granted and are in the next sections of this presentation.



Source: DTCC, FICC

Industry Progress Toward Central Clearing

Key Areas of Progress by the Industry Since the SEC Extension

Clearing Access + Implementation

Access Model Enhancements	FICC has made several additions and enhancements to their indirect access models via their new Sponsored Collateral-In-Lieu (CIL) service and enhanced Agent Clearing Service (ACS)
Additional CCPs	The SEC approved applications from both CME and ICE to establish covered clearing agencies for U.S. Treasury clearing. These approvals will provide increased competition, enhanced risk management and greater market resilience. The addition of CME and ICE also has the potential to provide further netting benefits and expand the clearing capacity for the market.

Regulatory

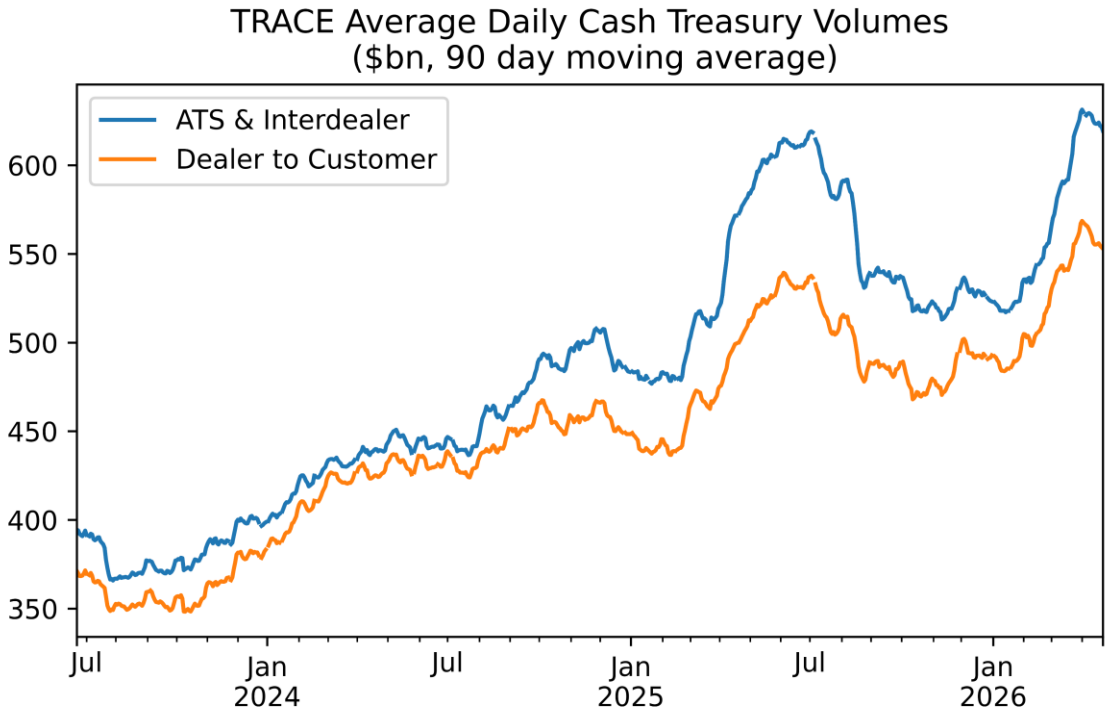
Mixed Collateral Clarification	SEC clarified that mixed collateral trades that "intend to use non-US Treasury securities as indicated by the collateral type selected at trade execution" are not required to be centrally cleared. This important clarification eliminates an estimated $1 trillion of mixed collateral trades that could have been interpreted as being in scope.
FICC & CME end-user cross-margining	Both the SEC and CFTC have approved FICC and CME's application to expand their cross-margining arrangement to include end-user customers
SEC accounting non-objection	SEC staff did not object to the SIFMA Accounting Committee's conclusion that FICC is the principal counterparty to the Agent Clearing Member's customer's repo in FICC's Agent Clearing Service

Legal + Operational

Document Standardization	SIFMA has published standardized securities clearing agreements for "done-with" transactions
FICC Onboarding Enhancements	FICC has made several enhancements to streamline their onboarding process through the creation of a Master Sponsored Member Agreement (MSMA) and the automation of various onboarding workflow processes.

Cash Treasury Volumes Increase

- Cash activity potentially subject to clearing has grown meaningfully over the past several years, with average daily ATS + interdealer volume totaling approximately $550 billion in 2025, up approximately 20% from 2024.
- The narrower scope of the cash clearing mandate, along with a more developed market structure for done-away activity, leaves the cash market relatively better positioned vs repo in advance of the mandate deadline.

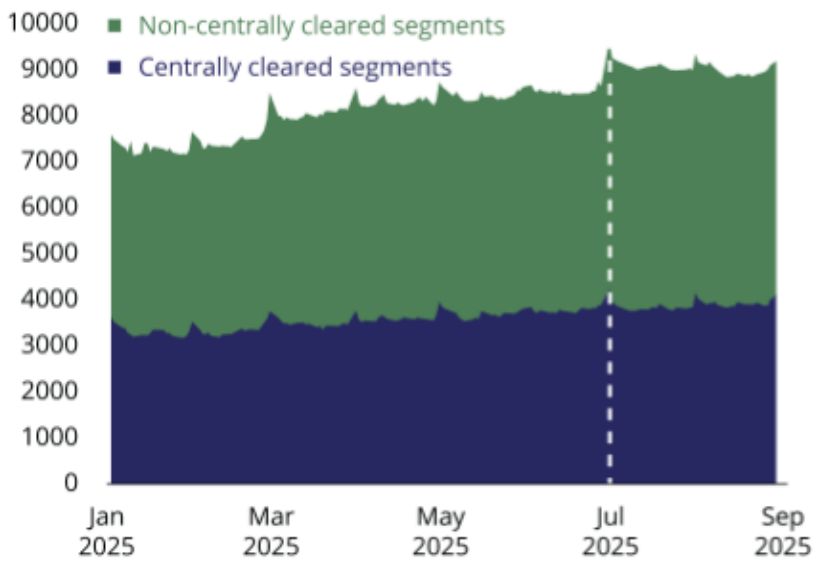


Source: FINRA/Haver

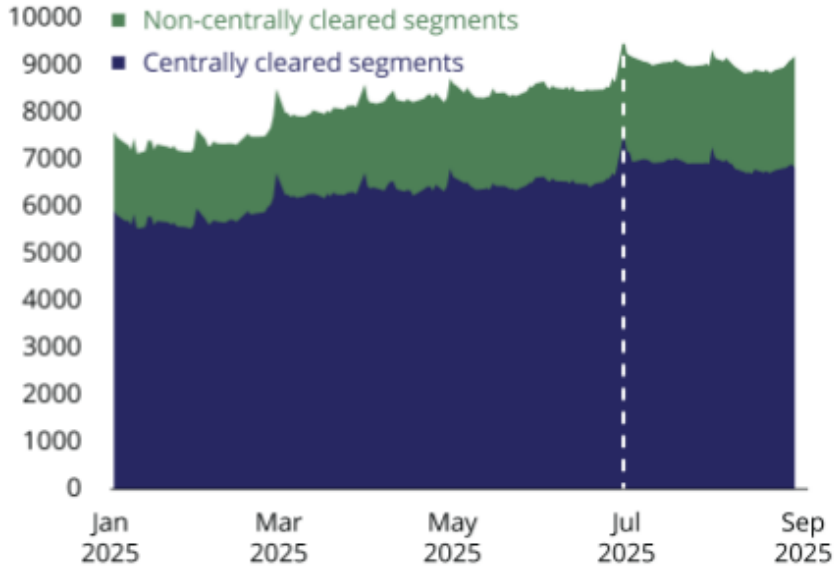
A Sizable Segment of the Repo Market is Already Centrally Cleared

- OFR estimates that during the first 8 months of 2025, 45% of average daily treasury repo volume outstanding was already centrally cleared
- The OFR estimates that, had the mandate been effective, 77% of volumes would require clearing under the mandate, with the remaining 23% exempt or excluded due to the inter-affiliate exemption or embedded optionality (e.g. open and evergreen) in the trade.
- Meaning that, in the first 8 months of 2025, the **OFR estimates that approximately 58% of repo volumes subject to the clearing mandate are already being cleared**

Centrally Cleared Repo Transactions



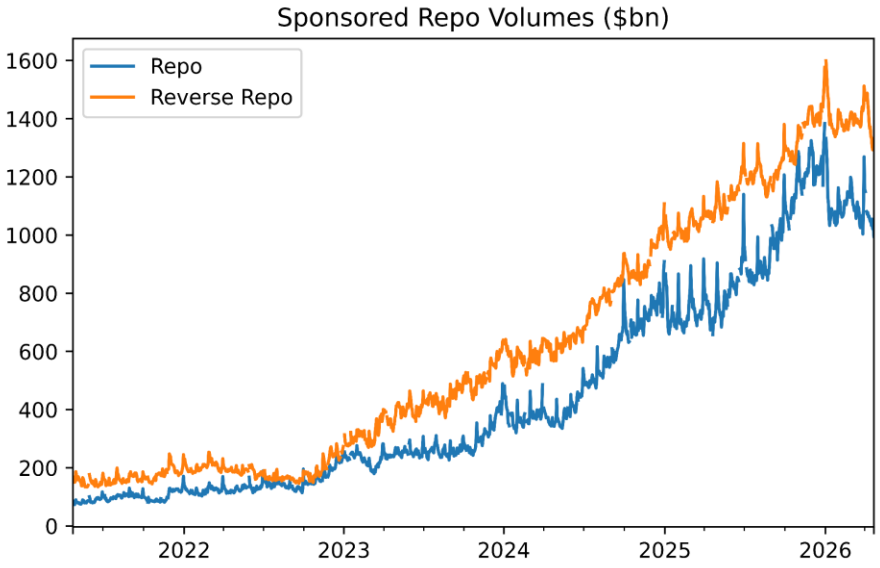
Requiring Central Clearing Assuming Rule Was in Place

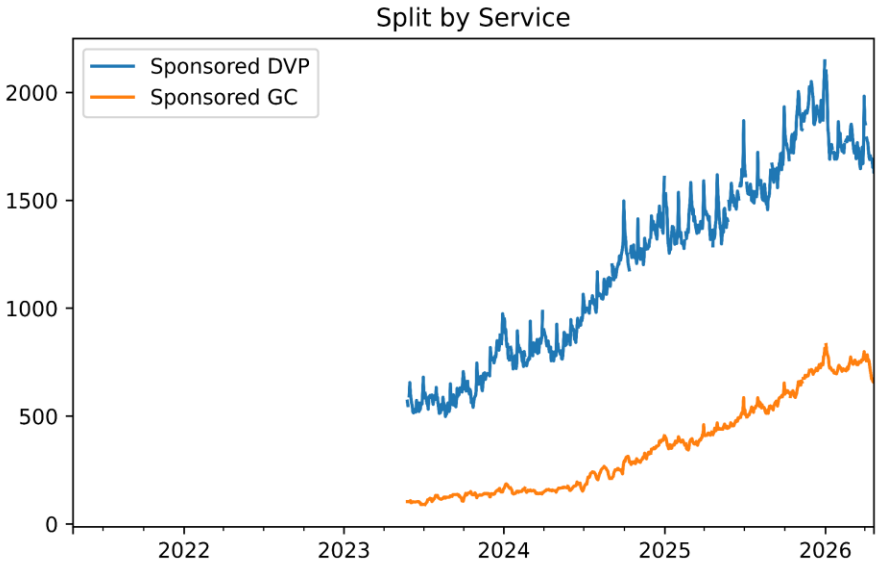


Dashed line represents additional data sources provided to OFR
Source: FRBNY Tri-Party repo collection, OFR cleared repo collection, OFR NCCBR collection, OFR

Sponsored Repo Has Been a Key Driver of the Growth in Central Clearing

- FICC's Sponsored Repo service has been the key driver of growth in centrally cleared repo since the SEC clearing mandate was announced at the end of 2023
- This growth has been relatively even across both cash lenders and borrowers. By service, FICC's sponsored DVP service remains the largest source of volume, though sponsored GC is growing at a faster pace.
- Total combined DVP and GC volumes have risen by over 150% in two years from $1.113 trillion at the end of 2023 to $2.856 trillion on Dec 30, 2025

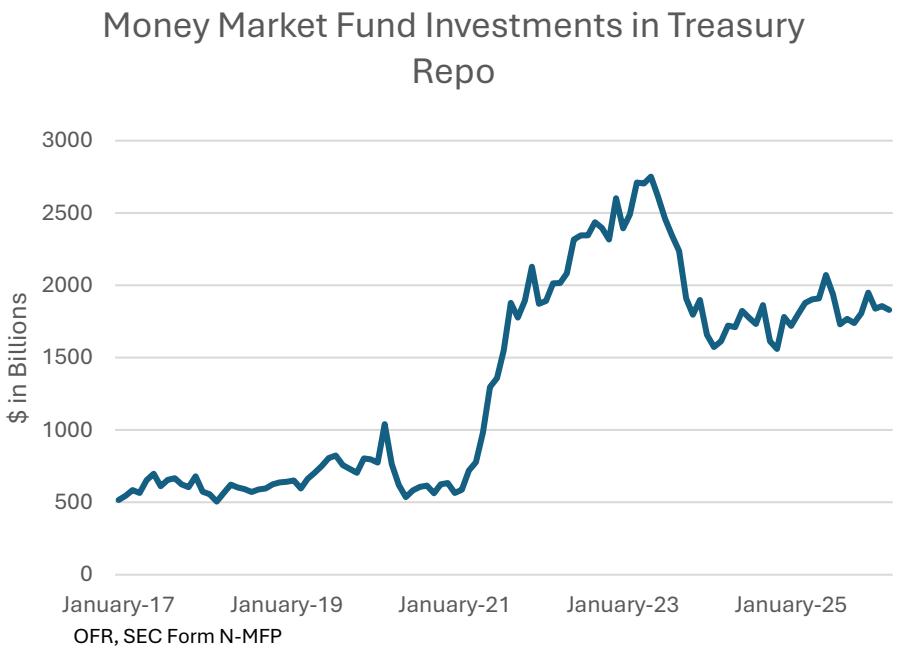


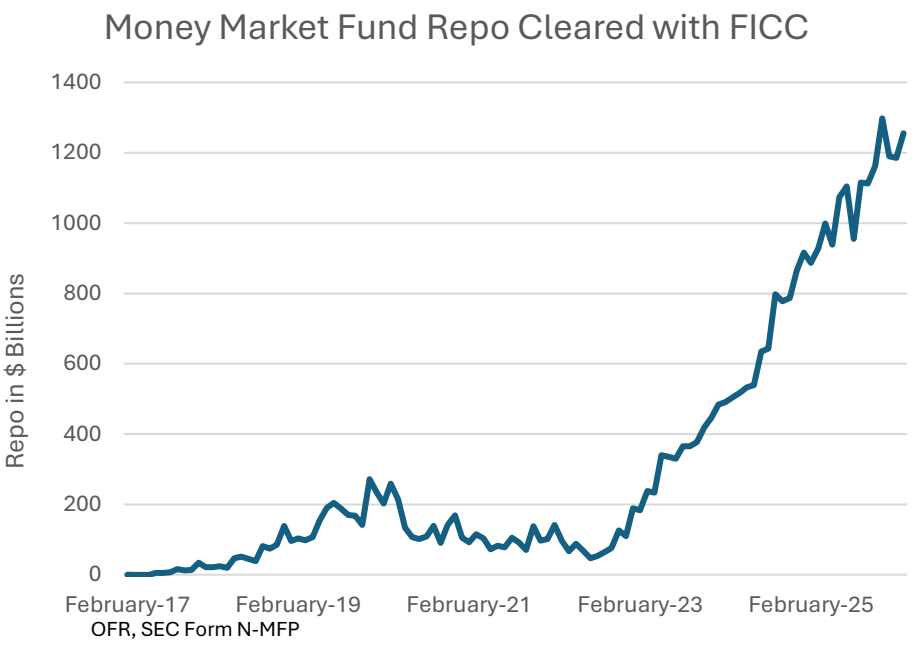


Source: DTCC

Money Market Participation in Centrally Cleared Repo Has Surged

- The growth in money market assets in recent years has driven demand in short term government securities including Treasury repo and has helped finance the growing supply of Treasury securities during recent years.
- FICC's Sponsored Repo Service provides money market funds with access to central clearing through its direct members enabling access to a broader range of borrowers and reducing counterparty risk.
- More than $1.2 trillion of money market assets are cleared through FICC's sponsored repo representing over 55% of their Treasury repo holdings.





FICC Indirect Access Model Developments

Recent additions and enhancements to FICC's indirect access model have create more clearing capacity by addressing the so-called "double margining" issue

- CIL: Under FICC's new sponsored collateral-in-lieu (CIL) model, FICC takes a security interest in the cash lenders purchased securities *in-lieu-of* traditional clearing fund margin, offering capital and funding benefits to sponsoring members relative to sponsored "classic"
- ACS: FICC margining occurs on a net basis across indirect participants when these indirect participants transact a non-segregated Omnibus account, providing Agent Clearing Members potential margin and capital efficiencies across clients

Comparison of Indirect Access Models

	Sponsored Service		Agent Clearing Service
	"Classic"	**Collateral-in-lieu (CIL)***	
FICC Membership	Limited direct membership		Executing Firm Customers are not FICC members
Margin Calculation	Gross margined	FICC security interest *in-lieu-of* margin*	• Net margined for non-segregated accounts • Gross margined for seg accounts
Settlement Method	DVP or Triparty	Triparty	DVP or Triparty
Execution Style	Supports both done-with and done-away		
Volume	Approximately $2 trillion in average daily volume in 2025	Currently limited	Repo currently limited, ACS primarily clears cash activity

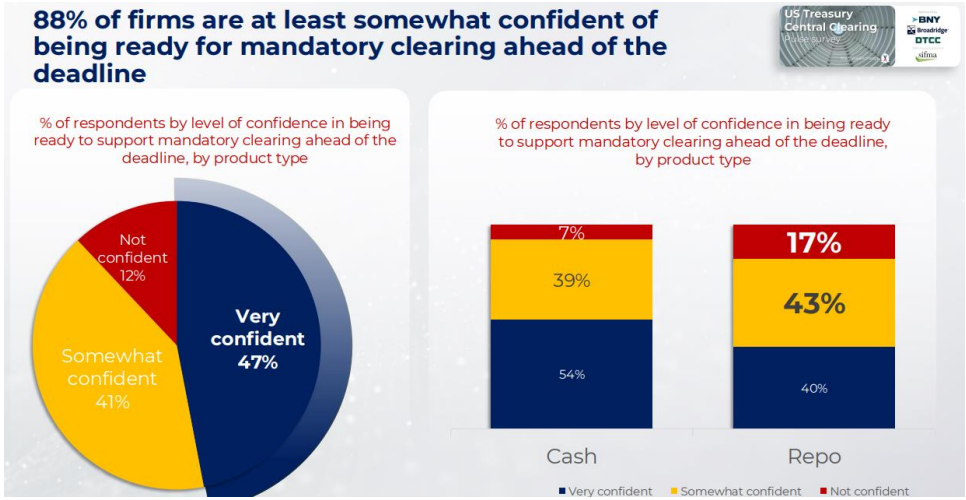
*CIL is technically a subset of FICC's Sponsored GC service and in some instances can require additional clearing fund margin depending on the tenor of the underlying collateral
Source: FICC

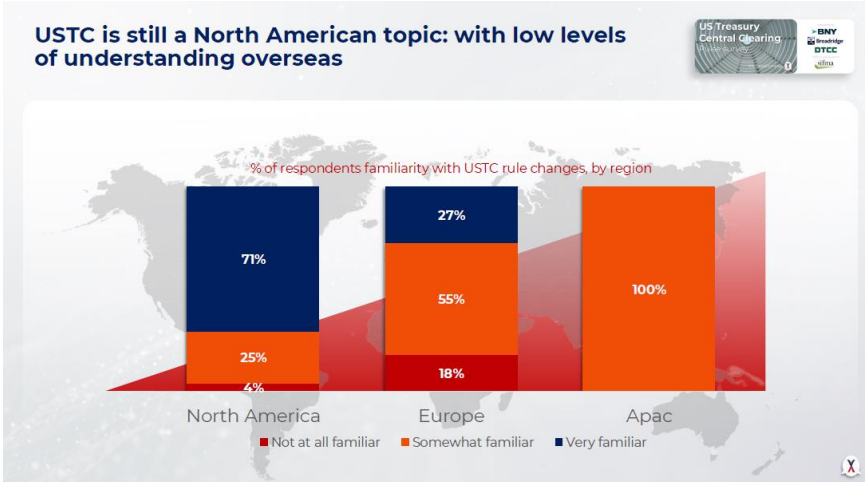
BNY, Broadridge and DTCC Survey on Readiness

***It is worth noting that key developments have taken place since this survey (Aug 2025) including enhancements to the ACS service, Cross-Margining between FICC and CME, approval of additional CCPs, SEC staff guidance on mixed-collateral and the approval of the CIL model.**

Survey on Central Clearing Readiness Shows Progress

- In August 2025, BNY, Broadridge, and DTCC sponsored a pulse survey on industry readiness, surveying 330 industry experts across the buy-side, sell-side and market infrastructure firms
- 47% of firms report being very confident about meeting deadlines, 41% are somewhat confident
- Confidence in Repo readiness trails the Cash market due to more complex access models and wider scope
- 88% of respondents indicated they cannot finalize preparation until they have more clarity on operating models
- Familiarity with clearing mandate rule changes is most advanced in North America, with APAC significantly lagging

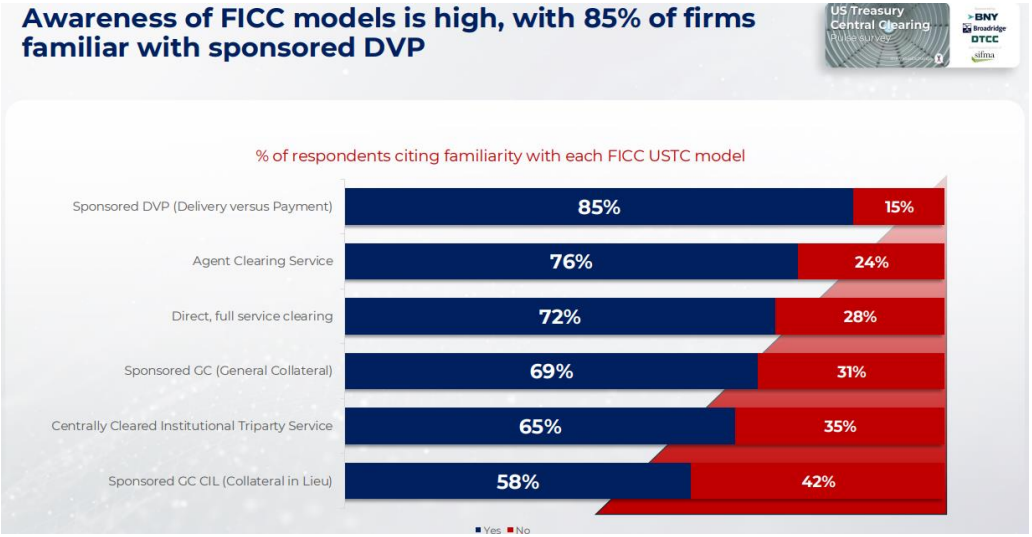


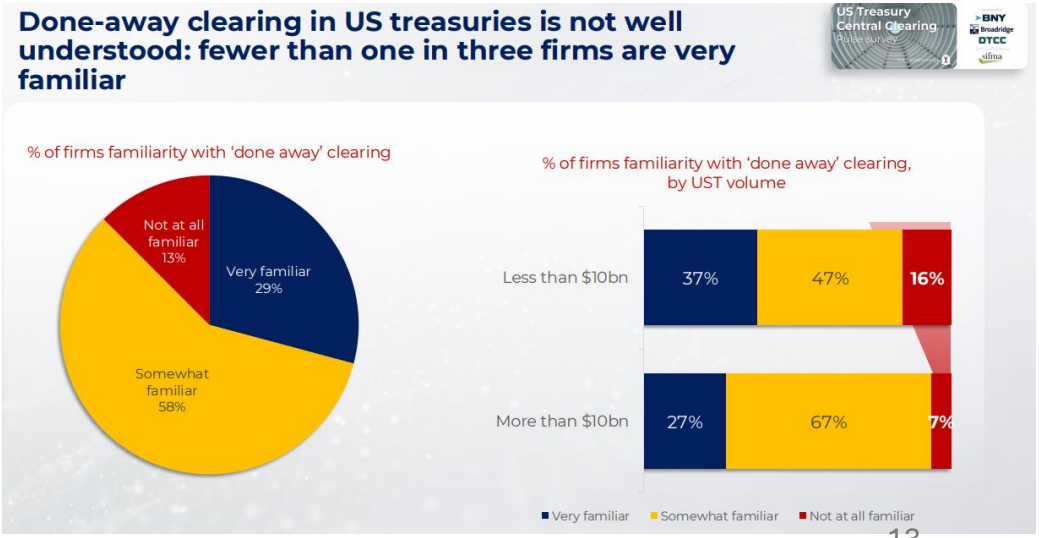


BNY, Broadridge, DTCC, SIFMA, Aug 2025

Industry Understanding Varies Across Repo Models

- Legacy sponsored models have broad awareness and new models are gaining traction
- Fewer than one in three firms report being “very familiar” with ‘done-away’ clearing; ACS is expected to be the most popular clearing model for done-away activity
- Operational readiness and re-papering contracts were cited as the biggest worries for up to 71% of firms





“Regulatory direction is identified as the single most important dependency in project planning. As the report highlights, ‘bottlenecks will not shift without regulatory clarity.’ ”

- US Treasury Central Pulse Survey

BNY, Broadridge, DTCC, SIFMA, Aug 2025

Update on Industry Scoping Issues

Regulatory Scoping Issues that Still Need to be Resolved

- Although the industry has made significant progress toward the central clearing deadlines, there are some key issues that still need to be resolved from both a regulatory and implementation perspective.
- The two most significant issues that require regulatory clarity from the SEC involve the potential reach of the rule to both affiliates and non-U.S. entities. These issues are fundamental in determining which participants will be required to centrally clear treasury activity and which ones will be exempt.
- The two issues, **inter-affiliate Treasury transactions**, regarding members that transact with their internal affiliates, and **extraterritorial reach on non-U.S. transactions**, regarding transactions between two non-us participants, are both related issues that need to be reviewed individually and holistically.
- Resolution of these issues will require regulators to balance the onerous reach of a broad scope with the potential evasion aspects of a targeted approach. Both of which could lead to an impact in Treasury liquidity.
- The resolution of these issues is also essential for the market to understand the scope of the participants involved so that institutions don't delay builds and hence impact operational readiness.

Inter-Affiliate Treasury Transactions

Many market participants utilize inter-affiliate Treasury transactions as part of their global liquidity management. Participants believe that applying this requirement to internal trades does not achieve the goal of the mandate and would instead creates substantial, unnecessary costs and operational burdens.

- The SEC had acknowledged this concern and included a conditional exemption for certain inter-affiliate repo transactions as part of the rule release in 2023.

- However, the industry is looking for additional clarity specifically on the following:

    - **The "Outward-Facing" Condition:** To qualify for the exemption for its internal trades with a direct clearing member, an affiliate must centrally clear all of its *other* eligible repo transactions with external parties. This condition is seen as overly restrictive, and industry associations have asked for flexibility for a limited share of outward facing activity to be conducted without clearing. For example, certain transactions in international markets may be more difficult to clear due to jurisdictional requirements or operational issues.

    - **Limited Scope of Affiliates:** The exemption is restricted to specific types of regulated affiliates, such as banks and broker-dealers, and does not cover the full range of entities within a global corporate structure.

Extraterritorial Reach for Non-US Transactions Issue

The current clearing requirement is triggered if just one counterparty to a trade is a direct member of a U.S. covered clearing agency. This means that a transaction between two non-U.S. entities would be required to be centrally cleared in the U.S. if one of the entities is a clearing member.

- The Institute of International Bankers (IIB) favors a targeted exemption for transactions that occur outside the U.S. between non-U.S. participants citing significant legal and operational costs associated with transactions that are not connected to the US. Requiring these transactions to be cleared could create frictions and incentives for non-U.S. participants to exit these transactions.

- The Financial Services Forum (FSF) which represents the GSIBs, counters that an exemption could create a two-tiered, bifurcated market between the U.S. and others leading to evasion of clearing. This could undermine liquidity and increase risk in the Treasury market. The FSF recommends a narrowly tailored and potentially capped approach across participants to maintain a level playing field.

Current SEC Engagement on these Two Issues

In public statements in recent months, SEC Commissioner Mark T. Uyeda has acknowledged the urgency of resolving both the inter-affiliate and extraterritorial issues. He has emphasized the importance of not introducing unnecessary frictions into the Treasury market and has encouraged data-driven, practical feedback from the industry to help the Commission find a workable path forward.

Inter-affiliate Transactions

- On April 17, 2026, the Commission published a request for exemptive relief submitted by SIFMA. SIFMA's proposal seeks to expand the existing inter-affiliate exemption by:
    - Broadening the definition of an "affiliate" to cover more entity types within a corporate structure.
    - Introducing a tailored, activity-based threshold for certain non-U.S. affiliate transactions.

The SEC is now seeking public feedback on this request, signaling a willingness to consider modifications that would allow firms to continue their internal Treasury functions without undermining the central goals of the clearing mandate. The deadline for comments to be received is May 29, 2026.

Extraterritorial Scope

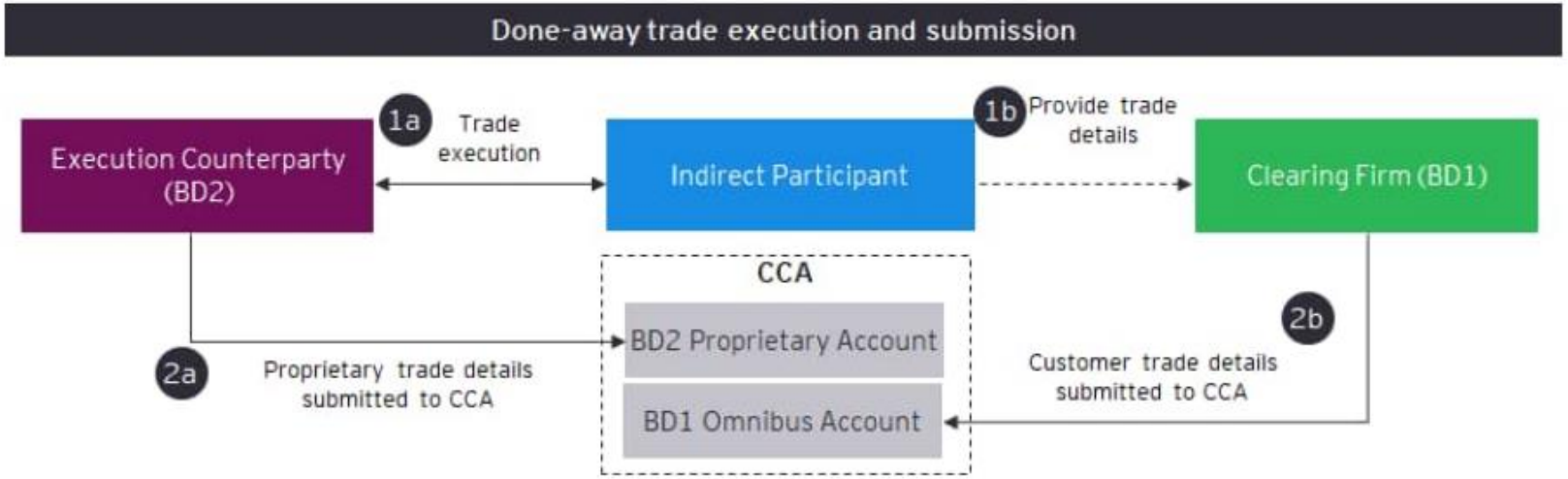
On April 17, 2026, the SEC also reopened the comment period on a request for exemptive relief from the IIB. The IIB's request specifically targets transactions executed entirely outside the U.S. between non-U.S. institutions where one is a clearing member. The FSF has warned of unintended consequences of this relief leading to a bifurcated market that could undermine liquidity. The deadline for comments to be received is May 29, 2026.

Legal and Documentation Issues

- Largest challenge from an implementation standpoint continues to be the amount of legal work and documentation associated with the bilateral agreements between participants.
- The new access models for central clearing of Treasury repo require comprehensive documentation updates
- Each direct relationship in a “done-with” transaction involves a bespoke contractual agreement that can take months to years to negotiate at a considerable legal cost.
- SIFMA has recently published standardized securities clearing agreements for "done-with" transactions. Although this framework is in place, terms of these agreements are still bespoke and need to be negotiated so the full benefit of an industry form has not yet been realized.
- FICC has made enhancements to their onboarding process creating a Master Sponsored Member Agreement (MSMA) as well as automating various on-boarding workflow processes.
- The Done-away model, as outlined on the next slide, can alleviate some of these documentation frictions by simplifying the execution of participants to one or just a few counterparties. Nonetheless, many challenges continue to exist in the development of this model.

Done-Away Model is Promising but Challenges Remain for Adoption by the Deadline

- Nearly all centrally cleared Treasury repo activity is currently executed on a “done-with” basis, whereby the executing firm also serves as the clearing agent for the trade. “Done-away” activity separates the execution and clearing, akin to the “give-up” model in derivatives markets.
- Done-away execution offers several potential benefits, including additional margin efficiencies through netting and cross-product margining, expanded clearing capacity, and simplified operational and legal workflows.
- SIFMA recently published a report on Done-away Model Design Considerations that offer foundational design elements for done-away clearing across different execution methods (CLOB, RFQ, and voice)
- Outstanding items include: a lack of standardized documentation, uncertainty around sequencing of the pre-trade credit check process, required operational builds, and commercial clarity around pricing for done-away activity



Source: SIFMA, EY

Other Open Items that Could Impact Broader Participation by the SEC Deadlines

Bank Capital Impact of end-user cross margining	Although the SEC and the CFTC have approved FICC/CME cross product margining (CPM), clearing members/FCMs are reviewing and evaluating the proposed Basel III capital requirement approach for such CPM transactions (NPR issued 19th March'26, comments due18th June'26). Given the anticipated margin relief expected across FICC/CME CPM transactions, this relief needs to be symmetrical in the FCM/clearing member's capital requirements so as not to hinder their ability to support offering this risk reducing product while supporting central clearing.
Uncertainty around who constitutes a government securities dealer	The cash clearing mandate requires submission for clearing any purchase or sale activity between a direct clearing member and a counterparty that is a registered broker-dealer or a government securities dealer. Some market participants have noted that ambiguity around who exactly constitutes a government securities dealer adds uncertainty as to exactly which cash transactions are in scope for clearing.
Guidance on the impact of failed trades or clearing agency outages on the Treasury Clearing rule	The SEC clearing rule requires eligible secondary market transactions to be submitted for clearance and settlement. Uncertainty remains as to what industry standard fallbacks would look like in the event a trade fails to novate for operational or other reasons.
Accounting Treatment	The SEC staff's non-objection to SIFMA's Accounting Group's analysis with respect to FICC's agent clearing service was specific to US GAAP. There remains uncertainty to exactly how different access models, at FICC as well as CME and ICE, will be treated under IFRS.
Potential central clearing of Fed Repo Operations	Market participants and policy makers have noted that centrally clearing certain repo operations at the Federal Reserve would help improve market functioning in times of stress.

What steps, if any, could the official sector take to support a smooth transition?

The official sector has been closely engaged with the industry efforts in progressing toward central clearing. The SEC has advanced these efforts by approving new rules in regard to cross-margining as well as approval of additional new clearing agents. SEC commissioner Uyeda has been particularly vocal in recent months on working toward a resolution of the major remaining regulatory issues.

- Near term clarity on the inter-affiliate and extraterritorial issues would go a long way in sustaining momentum and allow the industry to turn their focus to some of the outstanding implementation issues that can be resolved over the next 12 months.

- Continue to engage the market on any unintended consequences to the impact of overall Treasury market liquidity in both the cash and the repo markets, especially as it pertains to the implementation deadlines (are all players ready or will any significant portion of the market not be ready?) and pools of liquidity (both onshore and offshore).

Conclusion

- The industry continues to make significant strides toward the central clearing mandate deadlines
- The cash market is better positioned to meet its deadline later this year owing to narrower scope along with a more developed market structure for done-away activity.
- Close engagement with regulators has been vital in working through some of the larger regulatory issues and providing clarity on the scope of the mandate. A timely resolution of the two main outstanding regulatory issues, the inter-affiliate and extraterritorial scope, will allow the market to focus on remaining implementation issues to ensure broad access prior to the deadlines.
- Legal and documentation issues remain a challenge for the industry.
- Repo clearing access models have varying degrees of understanding among market participants. More established access models, which include done-with sponsored repo and done-with agent clearing services, are more likely to be utilized at the deadline.
- The approval of two additional covered clearing agencies, CME and ICE, will promote a more competitive but complex clearing environment although it may be challenging for market participants to have the bandwidth for readiness at multiple agencies by the deadline.
- While progress toward the deadlines has been steady, the challenges associated with some of these remaining issues could result in a clearing market that will not be available to all participants in all regions by the SEC deadline.

Sources

TBAC Committee “Developments in Central Clearing in the U.S. Treasury Market, Feb 2025
https://home.treasury.gov/system/files/221/TBACCharge2Q12025.pdf

SEC Final rule: Standards for Covered Clearing Agencies for U.S. Treasury Securities and Application of the Broker-Dealer Customer Protection Rule with Respect to U.S. Treasury Securities Dec 2023
https://www.sec.gov/files/rules/final/2023/34-99149.pdf

DTCC’s FICC and BNY Launch Collateral-in-Lieu Service, Dec 23, 2025
https://www.dtcc.com/news/2025/december/23/dtcc-ficc-and-bny-launch-collateral-in-lieu-service

SEC Treasury Clearing Implementation
https://www.sec.gov/featured-topics/treasury-clearing-implementation#latest-updates

CME Securities Clearing, Inc.; Order Granting an Application for Registration as a Clearing Agency under Section 17A of the Securities Exchange Act of 1934, Exchange Act Release No. 34-104281 (Dec. 1, 2025)
https://www.sec.gov/files/rules/other/2025/34-104281.pdf

ICE Clear Credit LLC; Order Granting an Application for Registration as a Clearing Agency under Section 17A of the Securities Exchange Act of 1934, Exchange Act Release No. 34-104762 (Jan. 30, 2026)
https://www.sec.gov/files/rules/other/2026/34-104762.pdf

General collateral triparty repo transactions in which U.S. Treasury securities are allocated based on a “collateral eligibility schedule” (i.e., mixed CUSIP triparty repo) March 30, 2026
https://www.sec.gov/rules-regulations/staff-guidance/trading-markets-frequently-asked-questions/frequently-asked-questions-treasury-clearing-093025

SEC Approves Exemptive Order and Proposed Rule Change to Permit Customer Cross-Margining in the U.S. Treasury Market, April 15, 2026
https://www.sec.gov/newsroom/press-releases/2026-36-sec-approves-exemptive-order-proposed-rule-change-permit-customer-cross-margining-us-treasury-market

Confirmation Letter Related to the UST Clearing Working Group’s Accounting Treatment for UST Repo Transactions Cleared Through FICC White Paper
https://www.sifma.org/advocacy/letters/confirmation-letter-related-to-the-ust-clearing-working-groups-accounting-treatment-for-ust-repo-transactions-cleared-through-ficc-white-paper

SIFMA Done-With Treasury Clearing Annex, Dec 18, 2024
https://www.sifma.org/documents/sifma-2024-done-with-treasury-clearing-annex

FICC Virtual Forum: Onboarding for U.S. Treasury Clearing, Sept 2025
https://www.dtcc.com/-/media/Files/Downloads/Microsites/Treasury-Clearing/FICC-Onboarding-Deck-September-2025

DTCC: Sponsored DVP and Sponsored GC Activity

https://www.dtcc.com/charts/membership

OFR: How Will Central Clearing Impact the Repo Market? Jan 29, 2026

https://www.financialresearch.gov/the-ofr-blog/2026/01/29/central-clearing-impact-repo-market/

DTCC: U.S. Treasury Clearing

https://www.dtcc.com/ustclearing/access-central-clearing

BNY, Broadridge, ,DTCC, SIFMA: US Treasury Central Clearing (Pulse Survey) Key Findings

https://www.dtcc.com/-/media/Files/Downloads/Press-Room/VX-2025-10-US-Treasury-Central-Clearing-Key-Findings.pdf

DTCC: U.S. Treasury Clearing: Recent Developments and Industry Impacts

https://www.dtcc.com/dtcc-connection/articles/2025/december/17/us-treasury-clearing-recent-developments-and-industry-impacts

Sources (cont.)

SIFMA: Request for Exemptive Relief from the Clearing Rule for Certain Inter-Affiliate Transactions April 10, 2026
https://www.sifma.org/advocacy/letters/request-for-exemptive-relief-from-the-clearing-rule-for-certain-inter-affiliate-transactions

SEC: Remarks at the Asset Management Derivatives Forum 2026: Treasuries and Tokenization, Feb 9, 2026
https://www.sec.gov/newsroom/speeches-statements/uyeda-remarks-asset-management-derivatives-forum-020926

SEC: Remarks at the Institute of International Bankers 2026 Annual Washington Conference, March 10, 2026
https://www.sec.gov/newsroom/speeches-statements/uyeda-remarks-institute-international-bankers-2026-annual-washington-conference-031026

SEC: Update on the SEC's Work Toward Treasury Clearing Implementation, Commissioner Mark T. Uyeda, April 20, 2026
https://www.sec.gov/newsroom/speeches-statements/uyeda-update-sec-work-toward-treasury-clearing-implementation-042026

BNY: Reassembly Revisited: The path to central clearing, June 4, 2025
https://www.bny.com/corporate/global/en/insights/reassembly-revisited-us-treasury-clearing-rule-sec-update.html

SIFMA Publishes US Treasury and Repo Done-Away Model Design Considerations
https://www.sifma.org/news/press-releases/sifma-publishes-done-away-model-design-considerations

Regulatory Capital Rule: Category I and II Banking Organizations, Banking Organizations with Significant Trading Activity, and Optional Adoption for Other Banking Organizations
Federal Register :: Regulatory Capital Rule: Category I and II Banking Organizations, Banking Organizations With Significant Trading Activity, and Optional Adoption for Other Banking Organizations

Joint Letter to SEC Requesting Extension of Treasury Clearing Implementation Date, Jan 24, 2025
https://cdn.ymaws.com/www.iib.org/resource/resmgr/2025_comms/Extension_Request_US_Treasur.pdf

IIB Urges SEC to Eliminate Extraterritorial Application of FICC Treasury Clearing Proposal, July 25, 2024
https://cdn.ymaws.com/www.iib.org/resource/resmgr/2024_comms/IIB_Comment_Letter_-_FICC_Tr.pdf?bcs-agent-scanner=31ff0e17-3f73-c14f-9bf1-7a6389005ecf

FSF Comment Letter to SEC, File Number S7-2026-07 (Notice of Request for Exemptive Relief, Pursuant to Section 36(a) of the Securities Exchange Act of 1934, From Certain Aspects of Rule 17ad-22(e)(18)(iv) of the Securities Exchange Act of 1934 and Request for Comment) Apr 10, 2026
https://fsforum.com/wp-content/uploads/2026/04/FSF_Exemption_Request_Comment_4.10.26.pdf

SEC: Notice of Request for Exemptive Relief, Pursuant to Section 36(a) of the Securities Exchange Act of 1934, from Certain Aspects of Rule 17ad-22(e)(18)(iv) of the Securities Exchange Act of 1934 and Request for Comment Apr 17, 2026
https://www.sec.gov/files/rules/exorders/2026/34-105262.pdf

SEC: Reopening of Comment Period; Notice of Request for Exemptive Relief, Pursuant to Section 36(a) of the Securities Exchange Act of 1934, from Certain Aspects of Rule 17ad-22(e)(18)(iv) of the Securities Exchange Act of 1934 and Request for Comment
https://www.sec.gov/files/rules/exorders/2026/34-105261.pdf

Treasury Investment in Repo

Treasury Borrowing Advisory Committee

May 5, 2026

Charge Text:

Since 2009, Treasury has held all or nearly all of its cash in the Treasury General Account (TGA) at the Federal Reserve. Due to Treasury's cash balance policy (adopted in 2015), balances in the TGA have frequently exceeded $800 billion. Because a) Treasury's cash balance policy is formulated as a minimum, b) Treasury's week-ahead outflows vary significantly over time, especially in light of mid- and end-of-month security maturities, and c) Treasury changes bill auction sizes gradually, Treasury often holds balances in excess of its expected week-ahead outflows.

Should Treasury consider investing excess cash in the overnight Treasury repo market in order to generate investment returns while maintaining prudent risk management and avoiding market disruptions? Please discuss the potential benefits and costs of such investments. What returns would Treasury reasonably expect to earn on such investments? If the amounts Treasury offered to invest varied significantly day by day, what effects would there be on counterparty decisions about repo transactions with Treasury and the repo market more generally?

Executive Summary

- **Background on Treasury's cash balance policy**
- Treasury's current cash balance policy was established in 2015 as a risk management tool to help protect against a potential interruption in market access
- Treasury holds a level of cash generally sufficient to cover 1-week of outflows in the Treasury General Account (TGA), subject to a minimum balance of roughly $150B. The cash need is defined as the gross volume of maturing marketable debt plus the expected net fiscal outflow
  - A 2014 TBAC charge cited market disruptions during Hurricane Sandy (1.5d) and September 11th (2-3d) to highlight the importance of a cash buffer[1]
  - Variation in cash needs during the month results in periods of time in which the TGA can have excess cash
  - At times, the debt ceiling has caused Treasury to violate this risk management policy by using TGA cash as funding in lieu of issuing debt
- Prior to the GFC, when system reserves were scarce, Treasury divided its cash balance between a stable TGA balance at the Fed of ~$5B and the rest in Treasury Tax and Loan Note accounts (TT&L accounts) at banks, on which Treasury earned Fed Funds less 25bps[2]
  - As a result, this regime had minimal fiscal flow-induced reserves volatility
  - In late 2008, the Treasury began keeping all or nearly all of its cash at the Fed in the TGA, which pays no interest. After the Fed gained authority that year to pay IORB, placing Treasury cash in banks at a rate below IORB would have caused an overall taxpayer loss[3]

- **There is scope for Treasury to invest excess cash in repo markets if positive net returns can be generated without creating market disruption**
  - Smooth functioning of funding markets benefits Treasury by lowering term funding premium resulting in lower Treasury debt issuance cost
  - As such, investments into the repo market should be structured in line with Treasury's commitment to being regular and predictable
  - From a consolidated basis, Treasury can earn positive economic value if repo rates are above IORB
- **We examined two approaches for excess cash investment in overnight Treasury repo which are dependent on the definition of excess:**
  - Excess could be defined as cash greater than the 1-week ahead need (*we call this the Excess over 1w Repo Approach*)
  - Alternatively, if Treasury is comfortable that maturing repo investments can be used to satisfy outflows in the 1-week ahead period, 3d needs could be held in TGA with excess cash to cover days 4 and 5 invested in repo (*we call this the Excess over 3d Repo Approach*)
    - There are several ways to implement this approach which we review in *Section 1*
  - In assessing outcomes, we found that excess cash available to lend could be larger under the *Excess over 3d Repo Approach*, while design choices will influence how much volatility resides in the TGA and the repo investments
- We conclude that positive economic value exists if repo rates are above IORB. As such, repo investments do not have economic value in all market environments
- There are many operational considerations to resolve prior to implementation. Transitioning the cash management approach gradually would allow the market time to adapt

The deck is organized in sections:

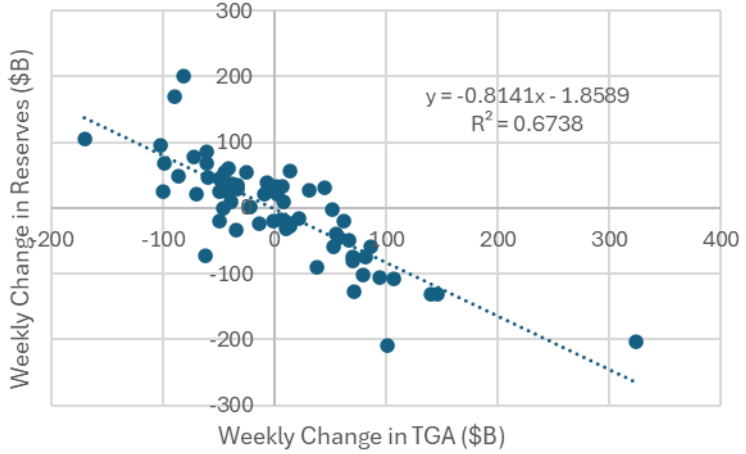
1) Objectives and comparison of excess cash investment approaches **2)** Consolidated impacts and potential returns
3) Implications of repo balance volatility and implementation considerations **4)** A summary of alternative approaches

1. https://home.treasury.gov/system/files/276/Treasury-and-TBAC-Presentation-for-Archives-2nd-Quarter.pdf
2. For a more detailed explanation of Treasury cash management prior to and after the GFC, please refer to https://www.newyorkfed.org/medialibrary/media/research/current_issues/ci18-3.pdf
3. The banks borrowing from Treasury below IORB would earn IORB by leaving reserves at the Fed

Objectives of an excess cash investment framework

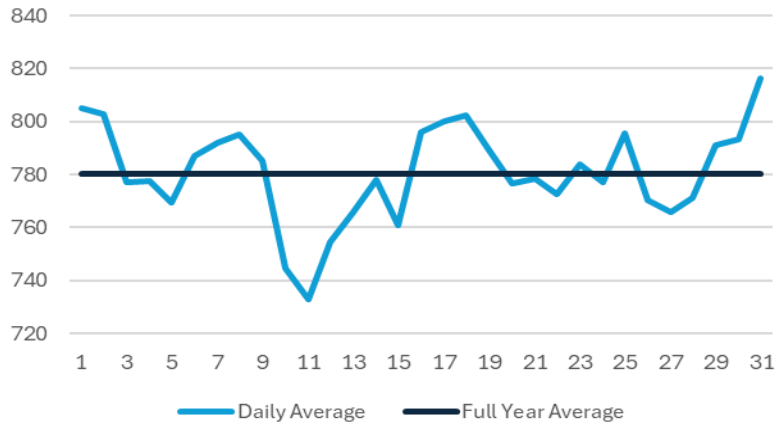
- **Treasury's cash outflows are driven by maturing debt and the timing of fiscal flows**
  - Treasury bill maturities occur on Tuesdays and Thursdays, while Treasury coupons mature either mid-month or end-of-month, with outflows more concentrated in months where a Tuesday or Thursday coincides with mid-month or end-of-month
  - Fiscal payments are higher around the turn of the month[1]
  - We note that the introduction of cash management buybacks has been helpful for smoothing T-Bill issuance throughout the year and has allowed Treasury to reduce concentrated debt maturity peaks, thereby reducing some volatility in intramonth needs
- **The volatility of Treasury's cash needs has implications**
  - TGA is often larger than the 1-week ahead need because Treasury cannot raise just-in-time funding to manage peak cash needs
  - Fluctuations in the TGA impact bank reserves which are negatively correlated to TGA (*lower left*)
  - As such, banks are sensitive to TGA volatility (deviation from trend, *lower right*)
- An important consideration for Treasury's cash management framework is that the **related volatility must reside somewhere**: variable sizing in T-Bills, repo investments or system reserves volatility as a by-product
- **This dynamic highlights potential objectives for TGA excess cash investments into the Treasury repo market:**
  - Generate economic value on a consolidated basis (Treasury + Fed)
  - Continue to achieve Treasury's risk management goal to protect against loss of market access while being able to satisfy payment needs
  - Consider the impacts to reserves and repo market stability

Weekly Change in TGA vs. Weekly Change in Reserves ($B, 1/15/25 – 4/1/2026)



Source: Federal Reserve, Daily Treasury Statement, Author's Calculations

Avg Daily TGA Balance (2024, excluding April, $B)



Source: Daily Treasury Statement, Author's Calculations

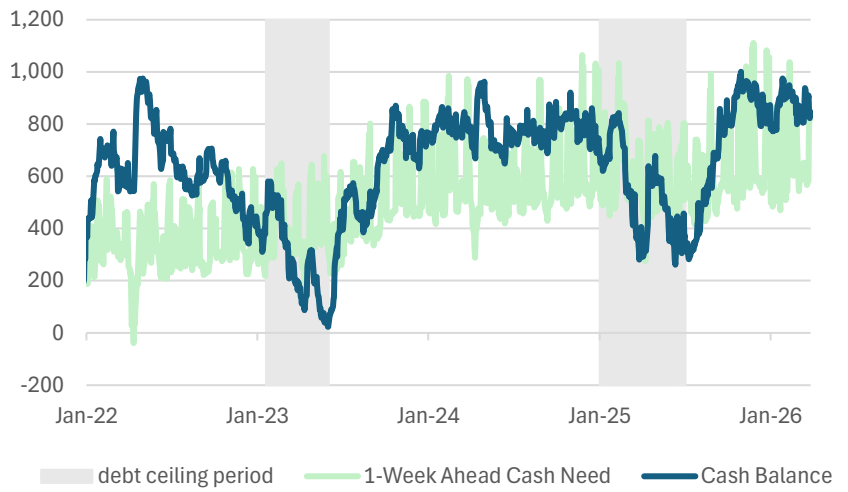
Note: We exclude April because April has unique flows related to tax season which are different from the typical monthly patterns

1. Driven by Medicare, Department of Veteran Affairs benefits, Supplemental Security Income and a portion of Social Security payments. See for example https://home.treasury.gov/news/press-releases/sb0267 for a discussion on intramonth payment dynamics

Defining excess as cash over 1wk-ahead needs

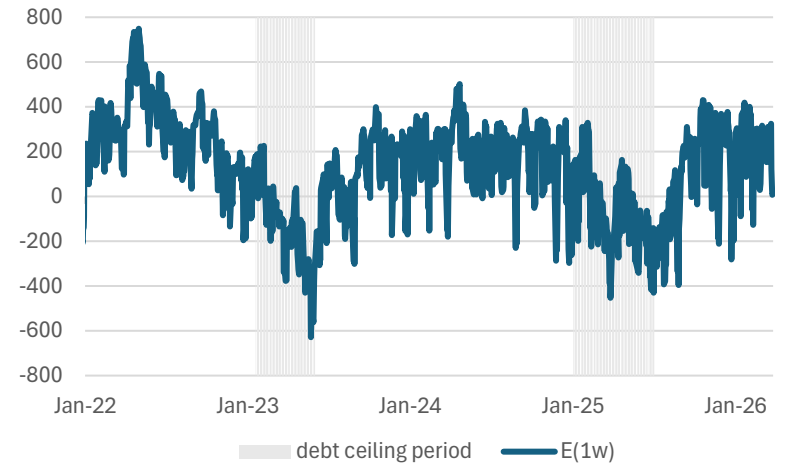
- **Below we show the TGA cash balance compared to the 1-week ahead cash need** (*lower left*)
  - The 1-week ahead cash need is *realized* cash flows from the Daily Treasury Statement (DTS) which includes net fiscal outflows and gross debt maturities
  - The difference between the two is *realized* "excess" TGA cash (*lower right*)
  - However, we note that true excess is likely lower given that some Treasury cash flow projections are subject to uncertainty on timing and/or size and therefore require an additional buffer
- **For this discussion, we define E(X) as TGA balances in excess of X period of cash needs**
  - Thus, **E(1w) = cash in excess of the 1-week ahead cash need**
- **2024 provides an opportunity to study intramonth TGA dynamics** because the TGA was not impacted by debt ceiling dynamics
  - On average in 2024, realized excess TGA cash was concentrated in the first and middle part of the month but falls towards zero at the end of the month
  - On the next page we discuss the pros and cons of investing E(1w) as an approach

TGA Balance vs. 1-week ahead cash need ($B)



Source: Daily Treasury Statement (DTS)

Realized E(1w) ($B)

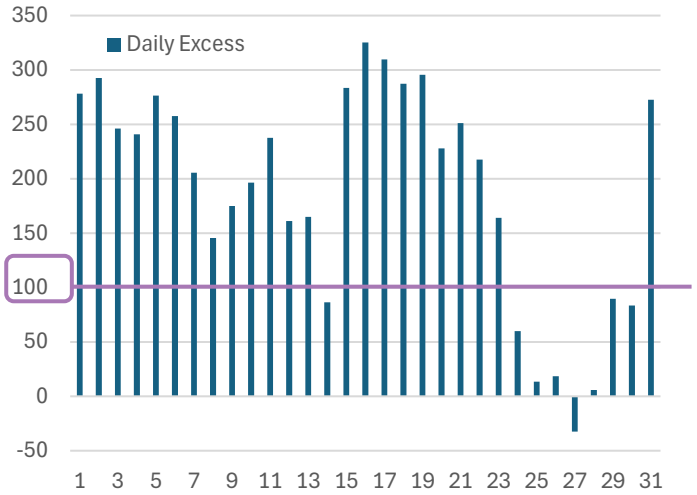


Source: Author's calculations

Excess over 1w Repo Approach

- **Below we consider the impact of investing E(1w) into overnight Treasury repo**
  - In 2024 average realized E(1w) is concentrated at the start of the month and in the middle of the month before declining to zero towards the end of the month (*top right*)
- **A full deployment of the E(1w) is not practical**
  - Would require daily investments averaging $200B with large swings in daily sizing
  - Repo investments decline substantially in the days approaching mid-month and month-end
  - TGA volatility increases significantly, resulting in more volatility in reserves as well
- **Instead, we consider investing E(1w) up to a $100B cap**[1] which leads to better outcomes
  - Less volatility in daily repo sizing better suited to a regular repo operation schedule
  - Enables repo investing without creating substantially more TGA volatility
  - Repo investments decline in the days approaching mid-month and month-end and the capping approach limits repo investments in the April tax season
- In both backtests, we assume that the entire amount of eligible excess cash is invested; in reality, operation fills could vary due to changes in market demand impacting results
- **On the next page we introduce an alternative approach to defining excess**

Avg "Realized" E(1w) by Day of Month in 2024 ($B)

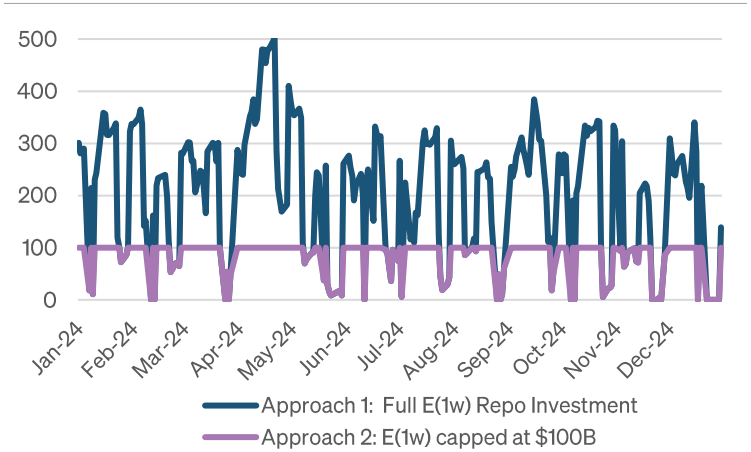


Source: DTS, Author's calculations

Backtested E(1w) Investments (2024)

	Approach Summary		Backtest Results 2024 ($B)			
			Average		Std. Dev. of daily chg	
	TGA	Repo	TGA	Repo	TGA	Repo
Approach 1	1wk need	E(1w)	585	200	102	104
Approach 2	>= 1wk need	E(1w) capped at $100B	702	83	47	35
		Actual 2024 -->	*785*		*35*	

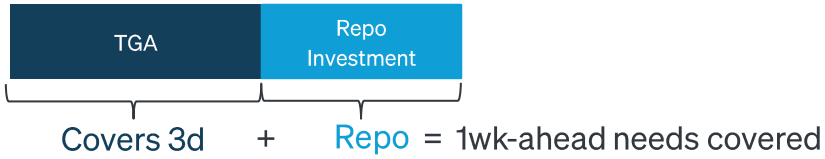
Daily Repo Investment ($B)



1. The $100B cap was informed by observing that on most days the available excess to deploy is >= $100B which would allow for a regular and predictable investment without introducing excessive volatility to broader repo market volumes. For context, the standard deviation of daily changes in SOFR volumes has been $85B during 2024-2026, see Appendix page 16

Alternative Approach: Defining excess as day 4 and 5 needs that can be invested in Repo

- Instead of investing E(1w), Treasury could evolve its framework to use a **liquidity portfolio** of cash ***and*** overnight Treasury repo to continue to protect against a 1-week interruption in market access
- With this liquidity portfolio, Treasury would expect to cover days 1-3 with the TGA if there is an operational disruption in the market, while **days 4-5 are covered by inflows from the maturity of overnight repo investments**. This approach remains aligned with Treasury's risk management objective
  - We call this the **Excess over 3d Repo Approach**



- **There are several ways that Treasury could size the TGA and excess cash available for repo investments under this approach**
  - **We consider three and apply to 2024.** In the backtest, we assume that the entire amount of eligible excess cash is invested; in reality, operation fills could vary due to changes in market demand impacting results

  - ***Approach 1 :*** Invest full amount of excess cash over 3d needs
  - ***Approach 2:*** Invest excess over 3d needs up to a cap of $200B
  - ***Approach 3:*** Reserve the month's maximum expected 3d needs in TGA and invest excess above this monthly target into Repo

Similar to prior page, but considers 3d needs and E(3d)

Approach Summary

	TGA	+	Repo	= 1-wk ahead
Approach 1	3d need		E(3d)	
Approach 2	>= 3d need		E(3d) capped at $200B	
Approach 3	Max 3d need for the month		E(Max 3d)	

Backtest Results 2024 ($B)

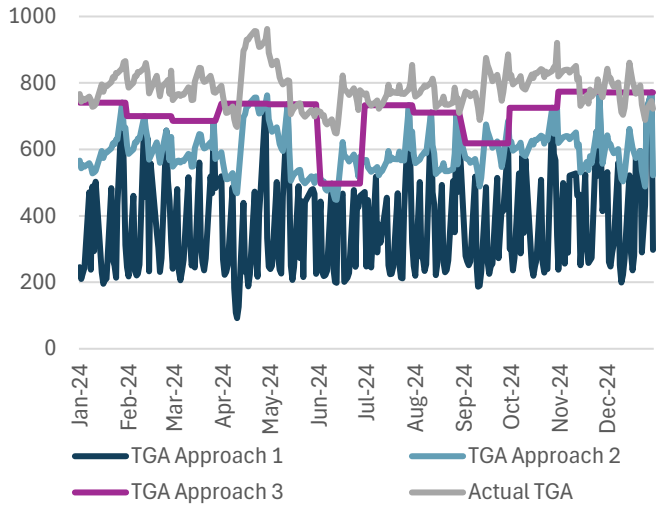
	Average		Std. Dev. of daily chg		*Total Liquidity Portfolio*
	TGA	Repo	TGA	Repo	
Approach 1	357	429	188	183	*785*
Approach 2	592	193	53	42	*785*
Approach 3	704	85	24	40	*790*
Actual 2024 -->	*785*		*35*		

- **We see the following tradeoffs and explore the results in more detail on the next slide:**
  - *Approach 1* creates enormous volatility in both the TGA and repo balances and is not practical
  - *In Approach 2,* capping the repo investment results in a fairly stable repo investment most of the month. The average repo is *~$100B higher* than the capped E(1w) approach on the prior page driven by lower average 3d needs (*see appendix page 14*)
  - *Approach 3* has a smaller, variable repo deployment with a stable intramonth TGA and a slightly larger overall liquidity portfolio versusthe 2024 actual TGA since the Max 3d need is higher than the actual TGA some of the time (*see appendix page 15*)

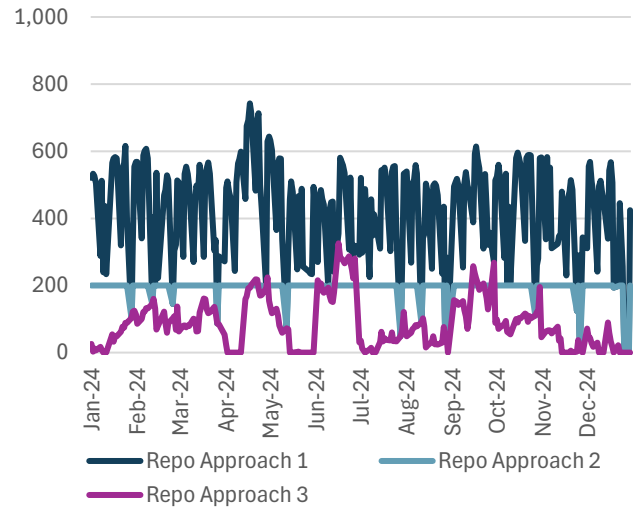
Excess over 3d Repo Approach

- For each Excess over 3d Repo Approach, below **we show the daily TGA balance** (*lower left*) **with the daily repo investment** (*middle*)
- As noted earlier, an important consideration for Treasury's cash management framework is that the **related volatility must reside somewhere**
- The three approaches demonstrate this
  - **Approach 1** generates considerable day-to-day **volatility in both** TGA and the repo investment
  - Approach 2 mitigates this by providing **stability to the daily repo investment on *most* days**
    - Repo investments decline in the days approaching mid-month and month-end as 3d needs increase; this effect is larger into month-end (*lower right*)
    - Treasury could consider larger repo investments during peak TGA inflows in the April tax season (*see appendix page 15*)
  - **Approach 3 stabilizes TGA on an intramonth basis** but results in a **smaller repo investment that varies in size day-to-day** (*lower right*)
- Approach 2 and **Approach 3 represent a more practical implementation** of a repo investment framework for Treasury to consider while highlighting that **design choices will have implications as to whether volatility sits in reserves, as it already does today, or in variable repo sizing**
  - There could be pros and cons to each: stability in reserves could result in benefits to the banking system if reserves buffers decline; however, intermediation challenges that the repo market has faced in the past could also support an approach in which Treasury's daily repo investment size is stable
- **There is also uncertainty with how these approaches might operate in practice**
  - The quarterly refunding provides an opportunity to provide regular guidance to the market on anticipated repo operation sizes for the upcoming quarter
  - Our 2024 backtest assumes that Treasury can fill its full investment capacity, while in practice a competitive repo operation subject to a minimum bid rate could be partially filled; demand might be most consistent in a scarce reserve regime (*we review consolidated economic impacts next*)

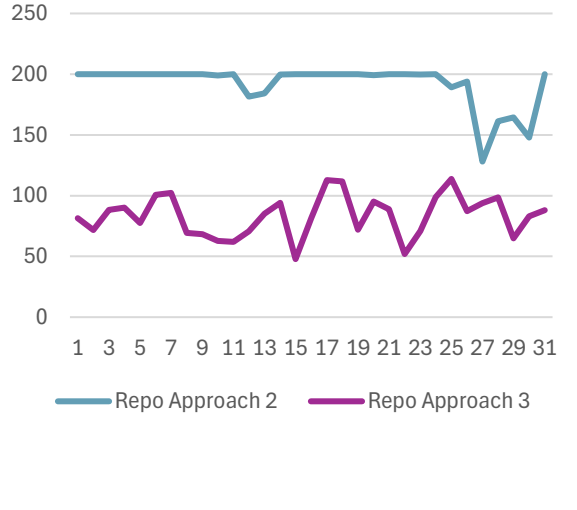
TGA Balance ($B, 2024 Backtest)



Daily Repo Investment ($B, 2024 Backtest)



Avg Daily Repo Investment by Day ($B, 2024 Backtest excluding April)



Consolidated economic impacts

- **TGA balances are typically negatively correlated with reserves (TGA down / Reserves up) which creates impacts at a consolidated system level**
  - Investing TGA cash into the repo market will increase reserves that the Fed will pay IORB on
  - The marginal trade will result in the Treasury earning a repo rate but the Fed paying IORB
  - The consolidated flows exist because of the Fed's practice to remit profits to Treasury, whereby an increase in interest expense at the Fed reduces net income that would otherwise be received by Treasury
- **Below we illustrate the consolidated impacts and assume that Treasury earns the tri-party rate TGCR on repo investments**

1. From a consolidated perspective, funding the TGA is near-costless since Treasury issues a T-Bill, holds the proceeds in the TGA which drains reserves and commensurately reduces Fed IORB payments [1]
2. An investment of TGA cash into the repo market would earn TGCR and result in an increase in the quantity of reserves that the Fed will pay IORB on
   - Therefore, from a consolidated standpoint, Treasury investing excess cash into repo results in **positive economic value if TGCR is above IORB net of transaction costs**

- Separate to the economic impacts, when the Fed has a deferred asset, as is the case currently, the accounting impacts are more complex, a concept we explore more on *slide 10*

Consolidated Impacts of Treasury Repo Investment

		Treasury		+ Fed		= Consolidated	
		Action	Interest Rate	Effect	Interest Rate	Effect	Interest Rate
1 *Impact of funding the TGA*	**Funding TGA**	Issues T-Bill to fund TGA	Pay T-Bill Yield	TGA increase drains Reserves	Reduces IORB payment (i.e. Recv IORB)	TGA up / Reserves down	Pay T-Bill / Receive IORB Implicitly
2 ***Impact of NEW Marginal Repo Investment***	**Excess cash TGA Repo Investment**	Lends reserves into Repo Market	Receive TGCR	System Reserves increase	Creates a new IORB payment (i.e. Pay IORB)	TGA down / Reserves up	Receive TGCR / Pay IORB

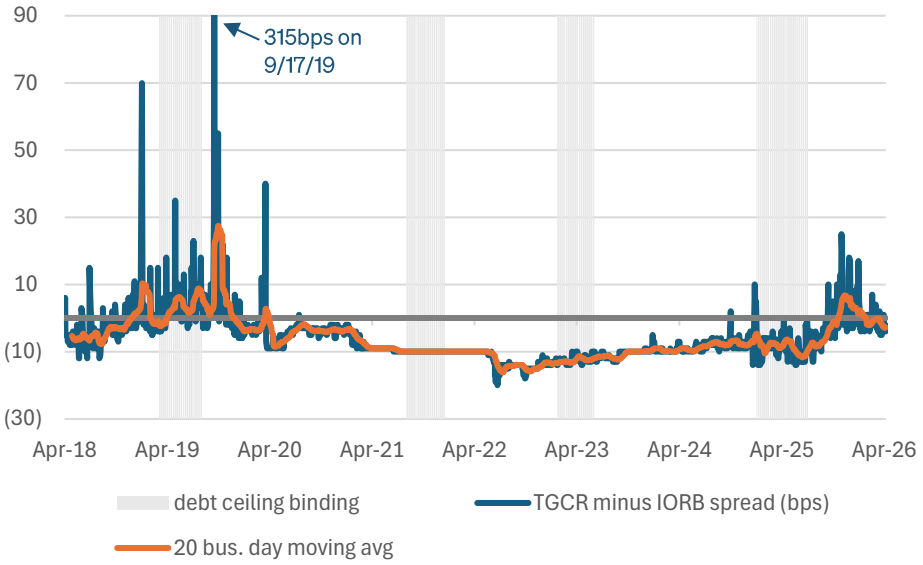
Marginal cash investment is sensitive to TGCR / IORB spread

1. The same conclusion on the consolidated system dynamics of funding the TGA was reached in the 2Q14 TBAC charge, see page 57
https://home.treasury.gov/system/files/276/Treasury-and-TBAC-Presentation-for-Archives-2nd-Quarter.pdf

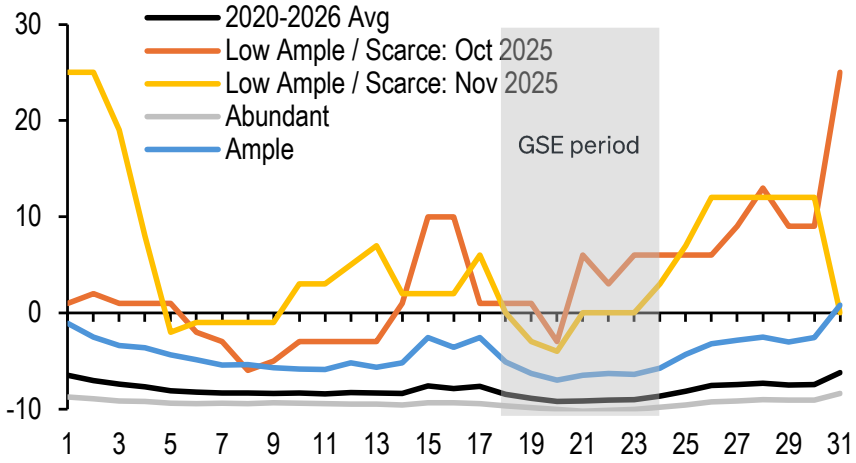
Market impacts on TGCR/IORB

- We review the evolution of the TGCR/IORB spread given that the consolidated economics of Treasury repo deployment are sensitive to it
  - In general, this spread is negative during periods of abundant reserves, slightly below or above zero when reserves are ample and positive when reserves are scarce. **This implies that Treasury repo deployment would *not* have positive economic value in all market environments**
- The return that Treasury can earn on a repo investment will be sensitive to the size of the investment and the reserves regime (abundant, ample or scarce)
  - The period of the month in which $80-$100B of GSE cash temporarily enters the repo market provides a gauge of price elasticity for the impact that Treasury investments could have
- Looking at the GSE period, we estimate that $100B of new money entering the repo market reduces TGCR by ~1bps if reserves are abundant, ~4bps if reserves are ample and ~5bps when reserves are low ample/scarce (although there is more limited data for a low ample/scarce reserves regime)
- **We conclude that if reserves are ample the TGCR/IORB spread that Treasury would capture is likely to be quite low (0-2bps).**
  - **On the other hand, if reserves are scarce then the spread and associated market impact could be higher (5-10bps)**
  - **If reserves are abundant, the economic value would be negative (-10bps)**
- On the following page we consider the spread and investment sizes to estimate potential returns

TGCR minus IORB spread (bps, 2018-2026)



Intramonth TGCR-IORB spread (bps, 2020-2026)



Potential Returns

- Below **we approximate consolidated spread income impacts per year** by combining average investment sizes with a TGCR/IORB spread (*see table 1*)
  - While the various approaches we backtested implied theoretical repo investments ranging from $80B towards $200B per year on average, Treasury's actual investment sizing could be sensitive to market rates and the reserves regime
  - For illustration we show how a $100B average investment over a year could result in -$100mm/yr in consolidated economic loss if reserves are abundant, roughly flat if reserves are ample and $60-$100mm/yr if reserves are scarce
- Due to the Fed's deferred asset position, Treasury will not be receiving remittances from the Fed until early 2030 [1]
  - The Fed cannot pass on interest income to the Treasury while it has a deferred asset. As such, an increase to Fed interest expense simply reduces *forward* income remittances to Treasury one-for-one in 2030, while Treasury will earn interest income upfront from the repo investment
  - We show the one-sided annual interest income that Treasury could earn upfront in table (*see table 2*)
- Given this unique circumstance, we approximate the NPV of the timing mismatch in table 3. This is shown *illustratively* for 1-year of spread income on a $100B repo investment
  - While the Fed is in a deferred asset position, we estimate positive NPV across reserves regimes
  - Once the deferred asset is paid down, the NPV would equal the spot spread economics (TGCR –IORB) on the investment size (as shown on page 8)
  - Notwithstanding this accounting, if Treasury were to lend excess cash in repo at rates below IORB this could signal to the market that their motivation is not economic value which is the TGCR/IORB spread

1 Annual Consolidated Spread Income ($mm)

Reserves Regime -->		Abundant		Ample		Scarce	
TGCR-IORB Spread (bps) -->		**-10**	**-6**	**-2**	**2**	**6**	**10**
Repo Investment ($B)	**50**	-50	-30	-10	10	30	50
	100	-100	-60	-20	20	60	100
	150	-150	-90	-30	30	90	150
	200	-200	-120	-40	40	120	200

2 Annual Treasury Income ($B)

TGCR Assumption (%) -->		**1%**	**2%**	**3%**	**4%**	**5%**
Repo Investment ($B)	**50**	0.5	1.0	1.5	2.0	2.5
	100	1.0	2.0	3.0	4.0	5.0
	150	1.5	3.0	4.5	6.0	7.5
	200	2.0	4.0	6.0	8.0	10.0

3 Illustrative NPV Impacts

	Treasury Repo Interest Income ($mm)			Impact to Remittance from Fed ($mm)
	a	**b**	**c**	**d**
	Scarce TGCR 3.25	Ample TGCR 3.16	Abundant TGCR 3.05	IORB 3.15
2026				
2027	3,250	3,160	3,050	
2028				
2029				
2030				(3,150)
NPV:	3,081	3,000	2,901	(2,726)
	a+d	*b+d*	*c+d*	
Consolidated NPV:	356	275	175	

Notes:
1. We use flat forwards of IORB at 3.15 and adjust TGCR depending on the reserves regime. These rates are generally similar to those used in the FRBNY OMO Annual Report
2. Columns *a,b,c* represents 1-year's worth of repo interest earned by Treasury on a $100B investment in 2027
3. Column *d* represents the reduction to Fed Remittances in 2030 from higher IORB expense incurred in 2027
4. Treasury cash flows are discounted at TGCR and the Fed's at IORB

1. Estimate from NY Fed OMO Annual Report 2025, See page 38
https://www.newyorkfed.org/medialibrary/media/markets/omo/omo2025-pdf.pdf

Implications of balance volatility on repo counterparts and additional considerations

- **It could be more difficult for the market to adapt to a new large lender of cash if the daily investment size varies significantly**
  - Treasury operating with a **regular operation schedule** would allow the market to plan for consistent absorption of Treasury investments
- Repo investment sizes under a program launch should consider the repo market size and behavior
  - The SOFR market is currently ~$3T with ~$1.2T in TGCR. The standard deviation of daily changes in SOFR volumes is ~$85B (*see appendix page 16*)
  - In our backtest examples, capping repo sizes or sizing the TGA to a peak monthly need resulted in average repo sizes of $80B to $200B with a standard deviation of daily changes near $40B. These seem to be workable end-state goals, but a transition period would allow for the market to adapt
- **There are many considerations for further study:**
  - **Clearing:** Would help provide balance sheet netting, but could introduce additional clearing costs or membership to a CCP
  - **Execution Format:** A competitive format would allow Treasury investments to have a distinct role compared to the Fed's SRP and potentially allow for trades to be included in the TGCR and SOFR calculations
  - **Counterparty Selection and Documentation:** It would make sense to begin with primary dealers and bank participants (those eligible for the Fed's SRP) as counterparts given their intermediation role in repo and exposure to system reserves impacts. Documentation needs includesigning MRAs.
  - **Operation Timing:** The majority of repo volumes trade in the morning between 7am and 9am, but this is also when the Fed's SRP operates
  - **Tri-Party Format:** Treasury could consider if there are benefits to "Early Morning Maturity" tri-party in an operational outage scenario
- When the debt ceiling is binding, as part of extraordinary measures Treasury uses the TGA cash as funding in lieu of issuing debt and 'spends down' the balance which is subsequently rebuilt post resolution
  - **Debt ceiling dynamics could create complications** if the market has grown accustomed to Treasury repo investments that suddenly stop, although this is mitigated by an increase in system reserves as TGA declines
  - The Fed could consider potential action to support smooth market functioning in these periods
- Below we compare the details of various Fed and Treasury programs with a hypothetical Treasury Repo Investment program

	Fed ON RRP (Sep 2013 onwards)	Fed SRP (July 2021 onwards)	Fed TOMO (Sep 2019 - July 2021)	Treasury Cash Management Buybacks	Treasury Hypothetical Repo Investment
Type	Reverse Repo Tri-party	Repo Tri-party	Repo Tri-party		Reverse Repo Tri-party
Clearing and Settlement Bank	BNY	BNY	BNY		BNY
Trading Platform	FedTrade Plus	FedTrade Plus	FedTrade Plus	FedTrade Plus	FedTrade Plus
Counterparty / Proposition Limit	$160bn	$40bn / eligible security type No aggregate limit	Two propositions per eligible collateral type, subject to a $20bn maximum per proposition $500bn aggregate limit	Based on schedule	$Xbn per counterparty $Xbn aggregate limit
Bid / Offering Rate	ON RRP Rate	SRP Rate	IORB + spread, multi-price auctions	Competitive, multi-price auctions	Competitive, multi-price auctions
Eligible Counterparties	Primary dealers + eligible RRP counterparties	Primary dealers + eligible SRP counterparties	Primary dealers	Primary dealers + entities approved by Treasury to participate directly in buyback operations	Primary dealers + eligible SRP counterparties
Schedule	Every business day	Every business day	Every business day	Seasonally, predominantly during weeks immediately surrounding major tax payment dates	Every business day, based on schedule
Time	12:45pm - 1:15pm	8:15am-8:30am 1:30pm-1:45pm	1:30pm-1:45pm	1:40pm-2:00pm	Ahead of SRP operation

Implementation details for further study

Shown here as illustrative structure

Alternative Approaches

There are several alternatives to highlight :

1. **Should Treasury invest in TT&L accounts instead of repo ?**
   - TT&L accounts would consume balance sheet capacity while cleared Treasury repo investments would be eligible for netting; however, exemption from leverage calculations could be considered for either
   - LCR would assign either a 25% or 40% outflow factor requiring a partial HQLA investment, possibly in reserves[1]. As such, the deposit is likely to price lower than IORB and repo rates unless reserves are scarce
   - Selecting bank deposit counterparts instead could be challenging and Treasury could be perceived to be "picking winners"

2. **Should Treasury be able to earn an interest rate from the Fed ?**
   - The consolidated economic and reserves impact is neutral, but the timing would allow Treasury to earn an upfront yield with a cost of adding to the Fed's deferred asset
   - Since the TGA is not remunerated, the cost of running a larger Fed balance sheet is moderately suppressed by virtue of it functioning as a large non-interest bearing Fed liability
   - Creating an interest payment between the Fed and Treasury on the TGA would allow for a more accurate reflection as an asset and liability with a yield and cost in the separate balance sheets
   - Earning an interest rate on the cash balance from the Fed provides a direct and clear incentive to Treasury to invest excess cash when repo rates are above the rate earned from the Fed
   - This might require congressional approval[2]

3. **Should Treasury seek new legal authority for the Fed to lend to Treasury during exigent circumstances (i.e., for operational outages) as an overdraft facility?**
   - This could allow for Treasury to consider a smaller TGA balance
   - The market might interpret such an authority as the ability for the Fed to monetize debt; therefore, the facts and circumstances under which Treasury could use it would need to be clear
   - There is historical precedent for such Fed authority: until 1935, Federal Reserve Banks occasionally purchased short-term securities directly from Treasury to facilitate cash management operations. Congress prohibited direct purchases in 1935, but then in 1942 provided a limited wartime exemption, which was renewed following the war but ultimately was allowed to expire in 1981[3]

1. LCR prescribes an outflow factor of 25% to uninsured non-financial operating deposits and 40% to non-financial non-operating or operating excess deposits
2. See: https://www.federalreserve.gov/newsevents/speech/miran20251119a.htm#fn3
3. For a detailed discussion, please refer to https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr684.pdf

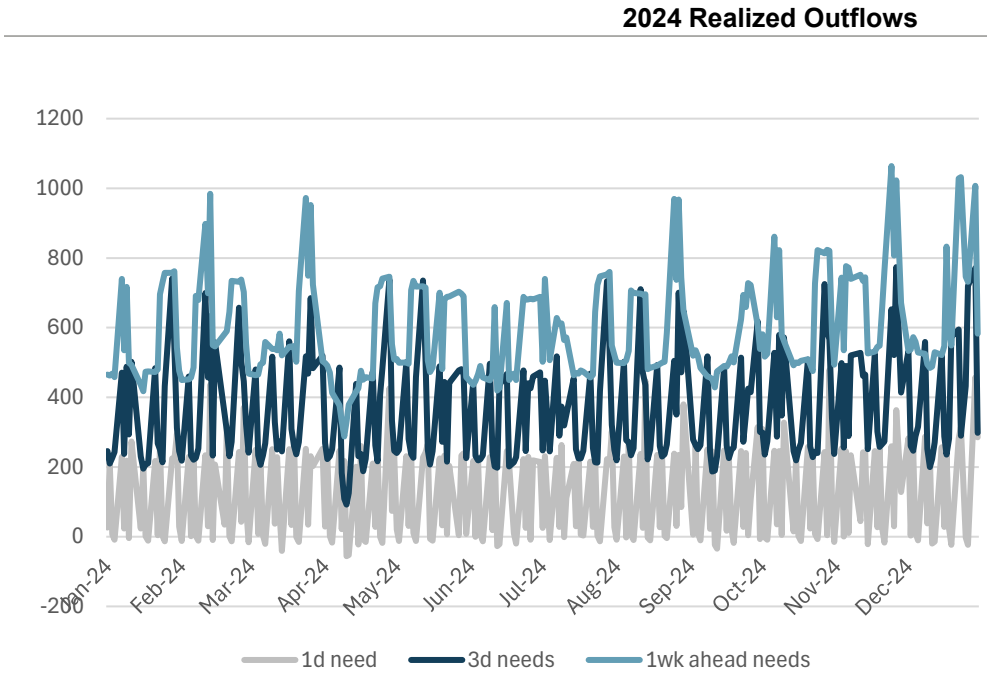
Conclusion

- **In the current framework, volatility in Treasury's cash needs generates intramonth excesses in Treasury's TGA.** While TGA itself is not a cost to the taxpayer, there are benefits from enhancing Treasury's cash balance policy approach. Opportunities and considerations include:
  - ✓ Treasury can earn positive economic value by investing excess cash when repo rates are higher than IORB
  - ✓ The size and economic viability of these investments could be dependent on the market environment and reserves regime
  - ✓ There are different approaches Treasury could take; if Treasury is comfortable holding cash for 3-days of needs and covering days 4 and 5 with inflows from maturing repo investments, the excess cash available to lend could be larger
  - ✓ Implementation approaches can have different impacts on the volatility of the TGA size and repo size to consider
  - ✓ Larger repo investments in the April tax season, when TGA has inflows, could be considered if the repo market demand is there
  - ✓ If Treasury chooses to begin investing excess cash into Treasury repo, transitioning its approach gradually would allow the market time to adapt

- **There are operational and implementation considerations for further study**
  - Clearing, counterparty selection, execution format, and timing
  - A regular and predictable operation schedule released as part of the Quarterly Refunding would allow for the market to plan

Alternatives	Repo Implications	Reserve Implications	Economic Value Spread	Other Considerations
Investing Excess TGA above a 3d need, various approaches to size 3d	Largest potential capacity Can be designed to offer stable operation sizes	Modest impacts, could be slightly lower or higher depending on design and market demand for repo	TGCR / IORB	Diversification benefit to Tri-Party Repo Market (new lender) Dealer leverage constraints could be mitigated by clearing or an exemption
Investing Excess TGA above a 1w need subject to a cap	Smaller potential capacity Variable repo sizing that declines in the days approaching month-end	Slightly higher reserve volatility	TGCR / IORB	
Investing in Bank Deposits	N/A	Same as repo, depends on the framework	Bank Deposit rate / IORB	Consumes bank leverage capacity unless exempted Bank bid unlikely to be above IORB unless reserves are scarce
Treasury earning a yield on TGA from Fed	N/A	No impact	N/A	Does not generate economic value

Appendix – 2024 Realized Outflows



Source: DTS

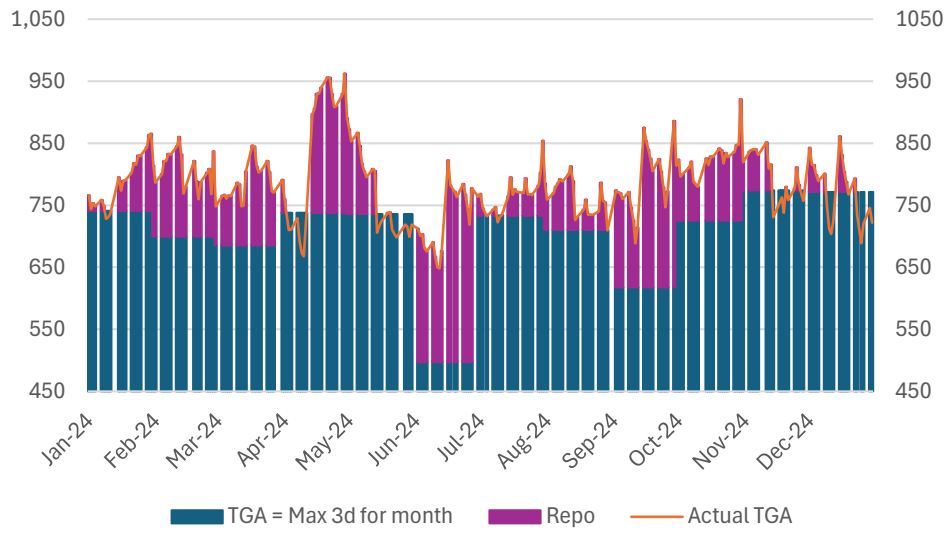
1-wk outflows
Avg: $595B
Std. Deviation of Daily Change: $129B

3d outflows
Avg: $357B
Std. Deviation of Daily Change : $189B

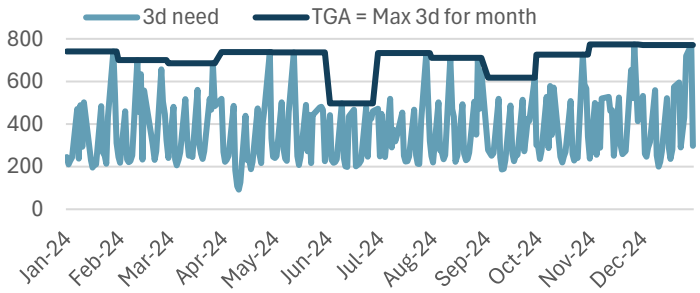
1d outflows
Avg: $119B
Std. Deviation of Daily Change : $223B

Appendix – Additional Excess over 3d Repo Approach details

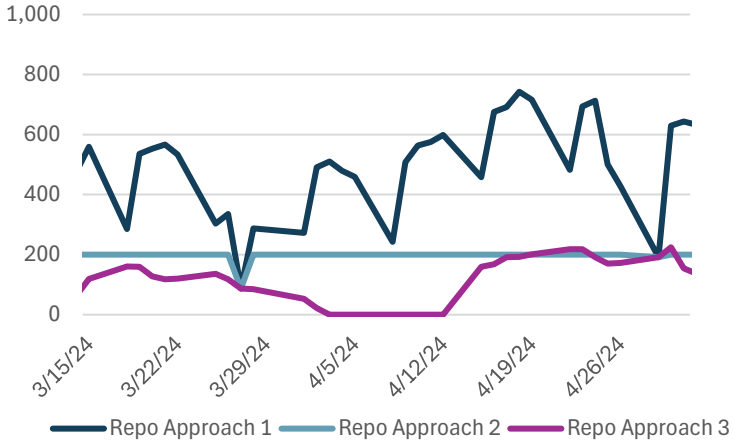
E(3d) Approach 3 vs. Actual TGA in 2024



- Reserving against the peak 3d results in a slightly larger liquidity portfolio on average ($790B) compared to the 2024 actual TGA average ($785B)
- Total Liquidity Portfolio in Approach 3 is TGA sized each month to the maximum 3d needs in the month (blue) plus the variable repo deployment (pink) vs. Actual TGA in 2024 (orange)
- Below we show the max 3d by month (blue) vs. the realized 3d outflows:



Daily Repo Investment in April Tax Season ($B, 2024 Backtest)



Approach Summary

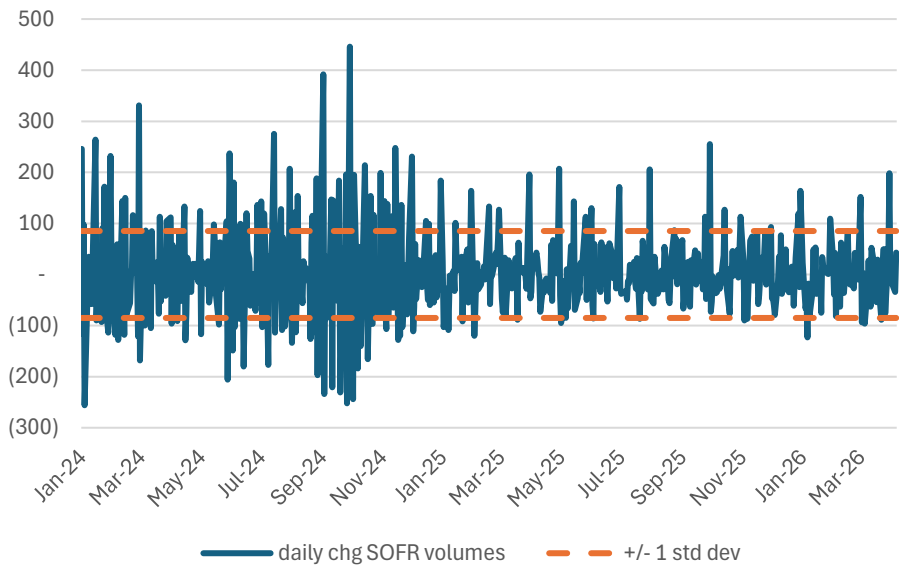
	TGA	+	Repo	= 1-wk ahead
Approach 1	3d need		E(3d)	
Approach 2	>= 3d need		E(3d) capped at $200B	
Approach 3	Max 3d need for the month		E(Max 3d)	

- Approach 1: Increases repo investments through tax season driven by growth in the actual TGA above 3d needs due to tax receipt inflows
- Approach 2: Caps the eligible deployment at $200B despite growth in TGA above the 3d need
- Approach 3: Actual TGA < peak need at April month-end until mid-month when tax receipts increase TGA enough to have excess to invest in repo

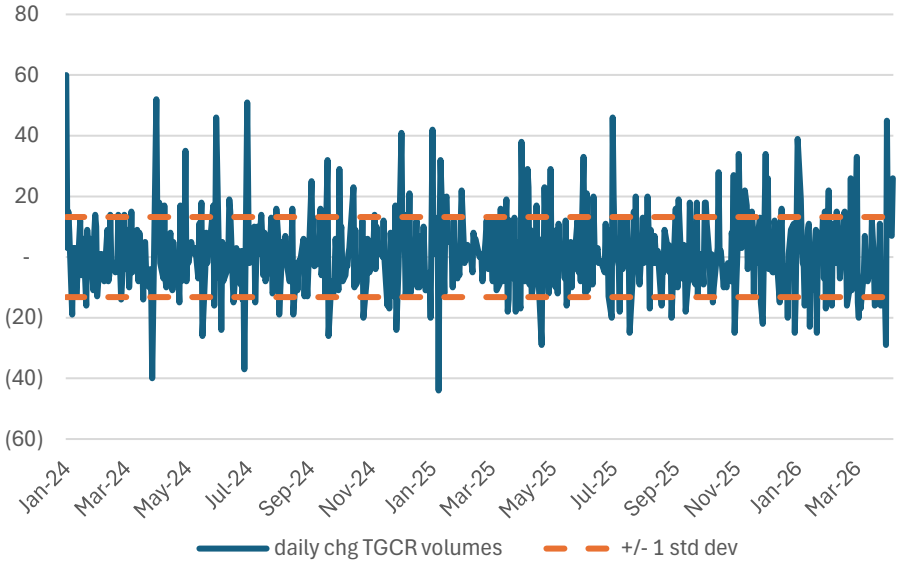
Source: Author's calculations

Appendix – Daily Change in SOFR and TGCR Volumes

Daily Change in SOFR Volumes ($B, 2024 – 2026)



Daily Change in TGCR Volumes ($B, 2024 – 2026)



2024-2026	Daily Change in SOFR Volumes ($B)	Weekly Change in SOFR Volumes ($B)
Standard Deviation	85	119
Average	2	11
Max	446	364
Min	-256	-342

2024-2026	Daily Change in TGCR Volumes ($B)	Weekly Change in TGCR Volumes ($B)
Standard Deviation	13	24
Average	1	5
Max	60	99
Min	-44	-74

Source: FRBNY, Author's calculations