Treasury Presentation to TBAC

Office of Debt Management

Fiscal Year 2025 Q1 Report

Table of Contents*

*All sources are from Treasury unless otherwise specified

Section I:
Executive Summary

Highlights of Treasury's February 2025 Quarterly Refunding Presentation to the Treasury Borrowing Advisory Committee (TBAC)

Receipts and Outlays through Q1 FY2025

	$ 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 Q1 FY2025	$1,083	-$25	-2%	14.4%	-1.0%
Total Outlays thru Q1 FY2025	$1,794	$176	11%	23.8%	1.4%

*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)
Q2 FY2025	$815	$850 (Mar)
Q3 FY2025	$123	$850 (Jun)

*The end-of-March and end-of-June cash balances assume enactment of a debt limit suspension or increase. Treasury's cash balance may be lower than assumed depending on several factors, including constraints related to the debt limit. If Treasury's cash balance for the end of either quarter is lower than assumed, and assuming no changes in the forecast of fiscal activity, Treasury would expect that borrowing would be lower by the corresponding amount(s).

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

Fiscal Year	Primary Dealers, Median, January 2025 ($ billion)	OMB Estimates, July 2024 ($ billion)	CBO Estimates, January 2025 ($ billion)
2025	$2,205	$2,126	$2,093
2026	$2,078	$1,695	$1,780
2027	$2,161	$1,648	$1,753

**All privately-held net marketable borrowing estimates are "normalized" with details from page 18.

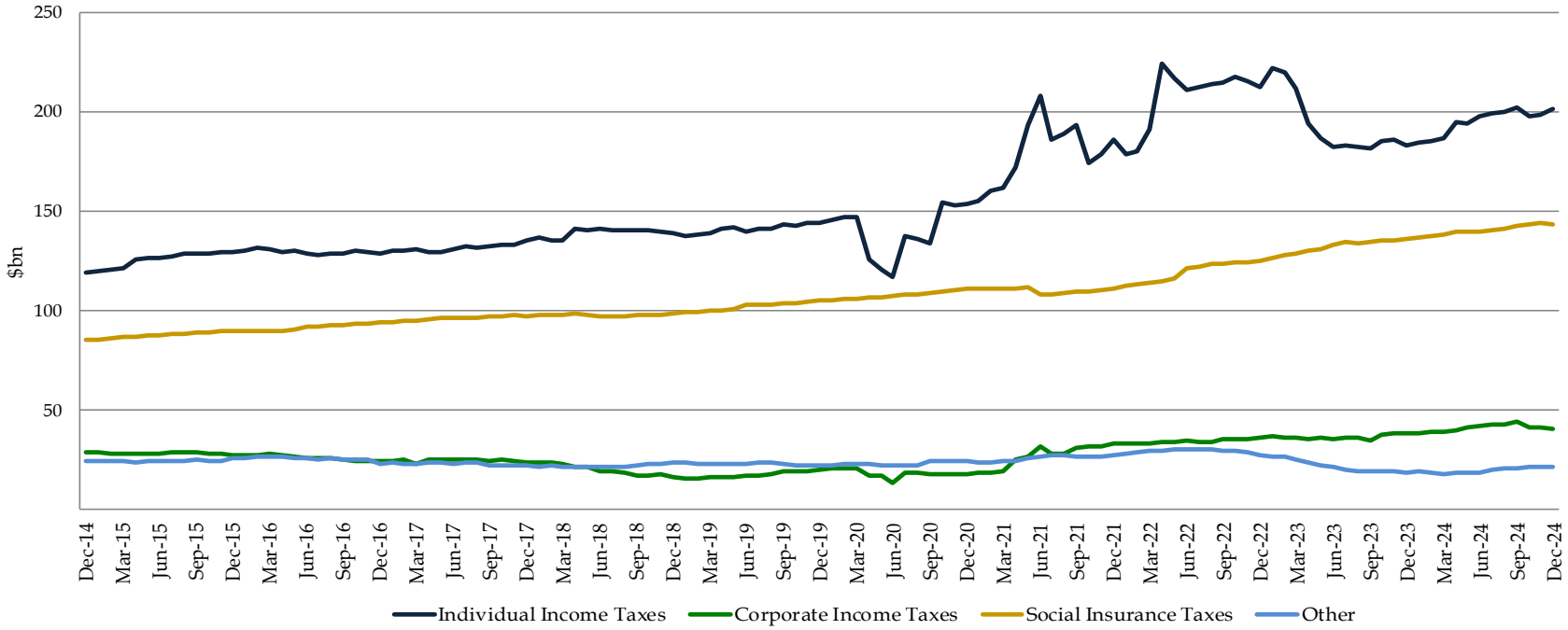
Uncertainty regarding future funding needs remains relatively high, reflecting a variety of views on the path of monetary policy, the duration of SOMA redemptions, and the outlook for the economy.

Latest Market Expectations for Treasury Financing in January 2025:

- Primary dealers expected no changes to nominal coupon issuance sizes at the February refunding.
- With respect to TIPS, a majority of dealers expect Treasury to announce a $1 billion increase to the March 10-year TIPS reopening (to $18 billion) and the April 5-year TIPS new issue (to $25 billion).

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

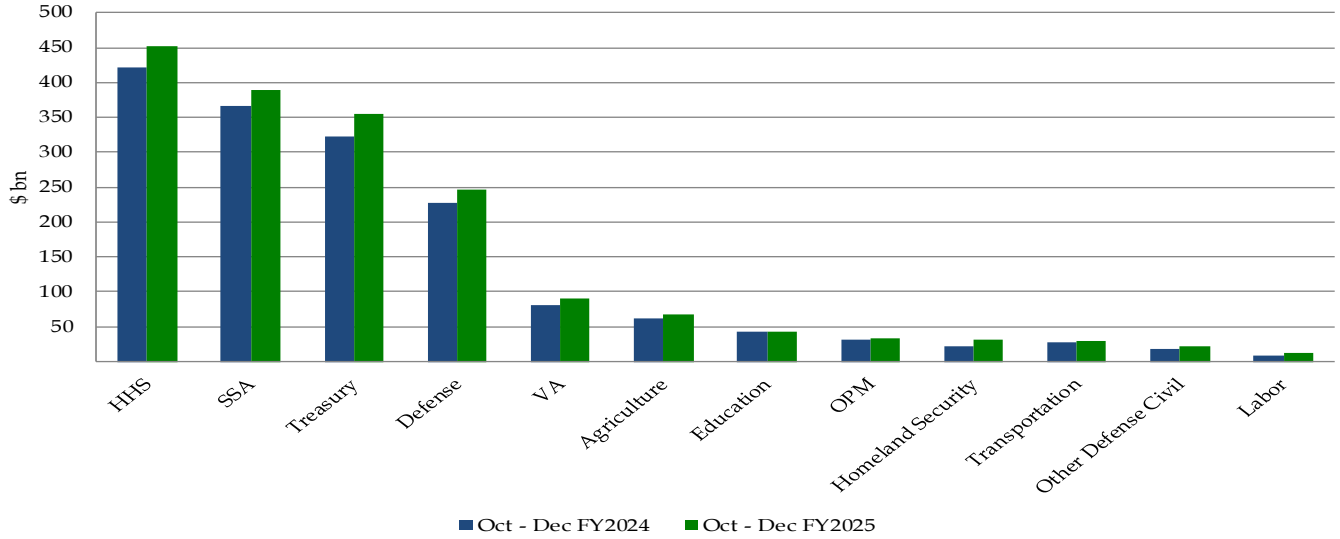
Monthly Receipt Levels
(12-Month Moving Average)



Notable Receipt Category	YoY change thru Q1 FY25 ($ billion)	YoY change thru Q1 FY25 (%)	Comments
Withheld & FICA Taxes (calendar adjusted)	+$35	+4%	Increased due to wage and employment growth.
Gross Corporate Taxes	-$39	-25%	Mainly due to deferred taxes from FY 2023 to FY 2024.
Non-withheld and SECA Taxes	-$44	-34%	Mainly due to IRS extension of several major deadlines for some taxpayers, including those in California, from FY 2023 into FY 2024.

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.

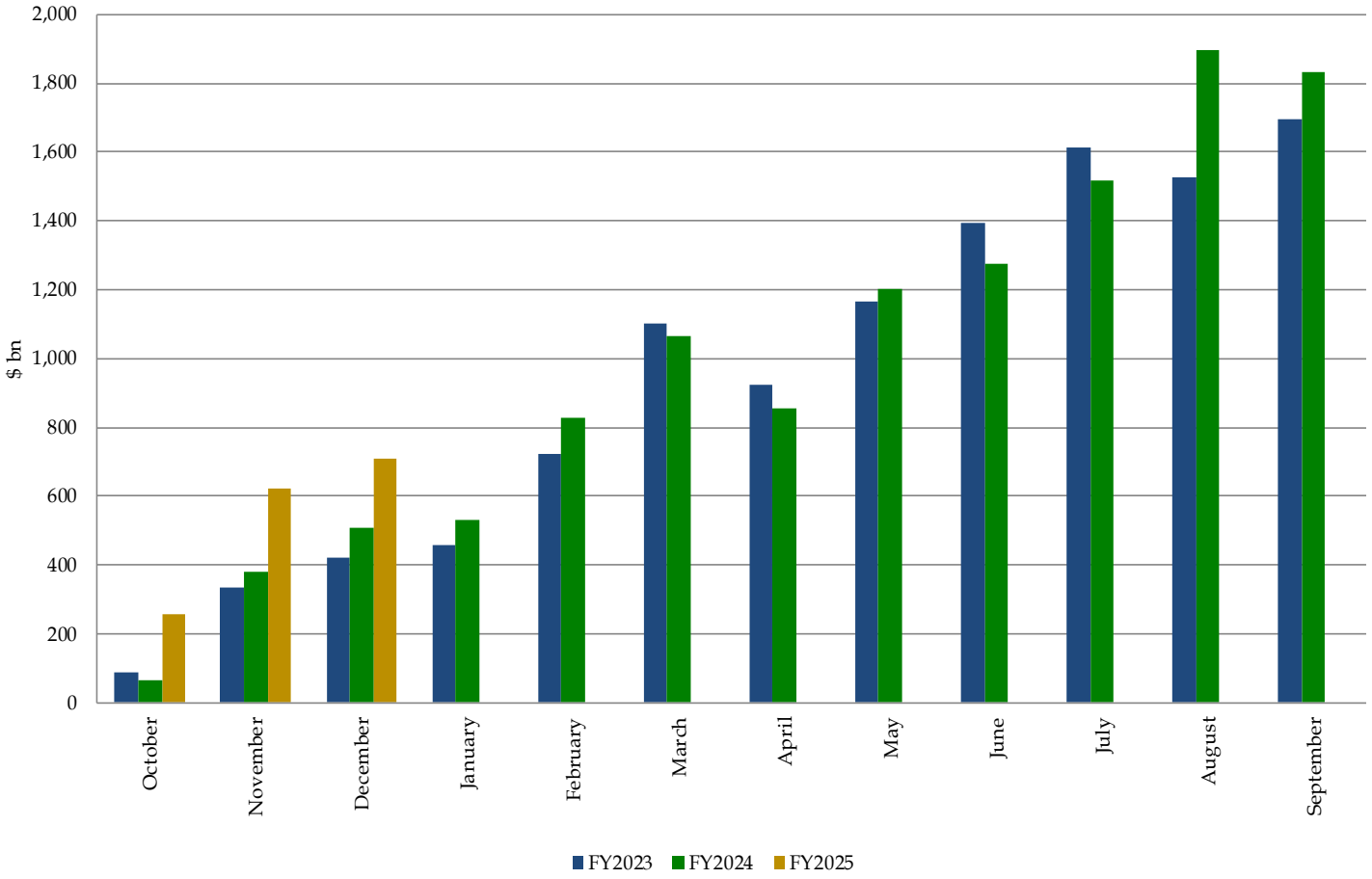
Largest Outlays



Notable Outlay Category	YoY change thru Q1 FY25 ($ billion)	YoY change thru Q1 FY25 (%)	Comments
Department of Treasury	+$33	+10%	Primarily due to increase in gross interest on the public debt, higher Affordable Care Act & Refundable Premium Tax Credits, Earned Income Tax Credit and Child Tax Credit etc.
Health and Human Services (calendar adjusted)	+$30	+7%	Primarily due to increaes in Medicare spending and Medicaid spending.
Social Security Administration (calendar adjusted)	+$24	+6%	Due to benefit increases from cost-of-living adjustments (COLA) and increased number of beneficiaries.
Department of Defense (calendar adjusted)	+$19	+8%	Due to higher outlays for operation, maintenance, procurement, research, development, test, and evaluation.
Department of Veterans Affairs (calendar adjusted)	+$11	+13%	Due to increased spending per person and veterans' increased use of health care facilities. The Promise to Address Comprehensive Toxics Act of 2022 (PACT Act) and the Fiscal Responsibility Act of 2023 are contributing to the increase in outlays.
Other (calendar adjusted, not in the chart above)	-$18	-10%	Mainly due to last year's Federal Deposit Insurance Corporation outlays related to bank failures, but not recurring this year. Partially offset by the disbursement in the Enviromental Protection Agency's Greenhouse Gas Reduction Fund, outlays for the Department of Homeland Security and outlays for the Department of Agriculture's Federal Crop Insurance Corperation (FCIC) Fund program.

Outlays in the chart above are on a calendar adjusted basis

Cumulative Budget Deficits by Fiscal Year



Section III:
Various Fiscal Forecasts

Primary Dealers, OMB, CBO

Recent Economic Forecasts

Primary Dealer Median Estimates January 2025

	CY2025	CY2026	CY2027
	% Change from Q4 to Q4		
GDP			
Real	2.1	2.1	2.1
Nominal	4.5	4.2	4.4
Inflation			
CPI Headline	2.6	2.5	2.3
CPI Core	2.8	2.7	2.4
	Fourth Quarter Levels		
Unemployment Rate (%)	4.3	4.2	4.1
	FY2025	**FY2026**	**FY2027**
Deficits ($bil)	$1,918	$1,975	$2,080

CBO Estimates January 2025

	CY2025	CY2026	CY2027
	% Change from Q4 to Q4		
GDP			
Real	1.9	1.8	1.8
Nominal	4.1	3.9	3.8
Inflation			
CPI Headline	2.3	2.4	2.3
	Fourth Quarter Levels		
Unemployment Rate (%)	4.3	4.4	4.4
	FY2025	**FY2026**	**FY2027**
Deficits ($bil)	$1,865	$1,713	$1,687

OMB Estimates July 2024

	CY2025	CY2026	CY2027
	% Change from Q4 to Q4		
GDP			
Real	2.1	2.0	2.0
Nominal	4.4	4.1	4.1
Inflation			
CPI Headline	2.3	2.3	2.1
	Fourth Quarter Levels		
Unemployment Rate (%)	3.8	3.8	3.8
	FY2025	**FY2026**	**FY2027**
Deficits ($bil)	$1,878	$1,601	$1,535

Note: OMB's Economic assumptions are from "Mid-Session Review Budget of The U.S. Government, Fiscal Year 2025," July 2024. Their forecast is based on information available as of May 28, 2024.
CBO's economic assumptions are from "The Budget and Economic Outlook: 2025 to 2035," January 2025. They reflect developments in the economy as of December 4, 2024.

Recent Deficit Forecasts

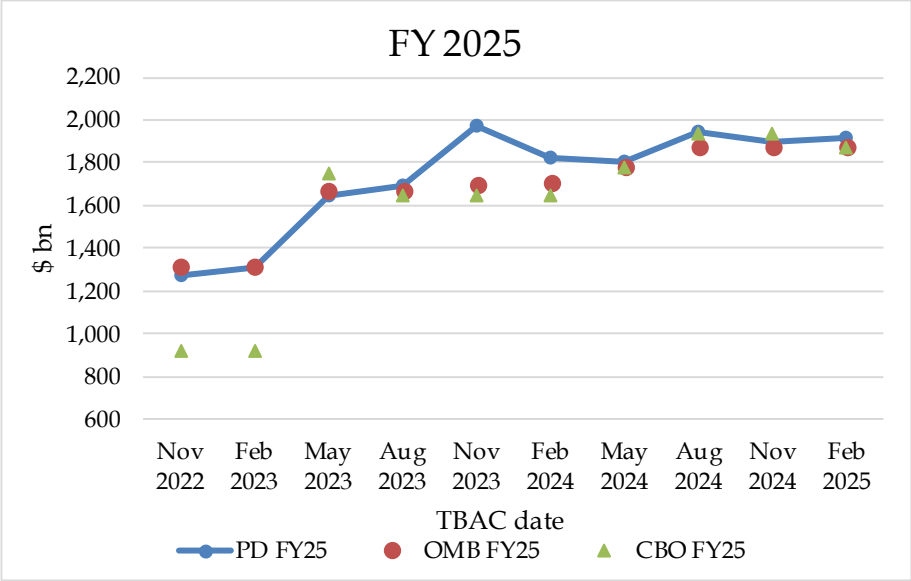
Primary dealers increased their median deficit estimates in January 2025 relative to estimates they provided in October 2024; in aggregate over FY25-FY27, dealers increased their estimates by about $188 billion.

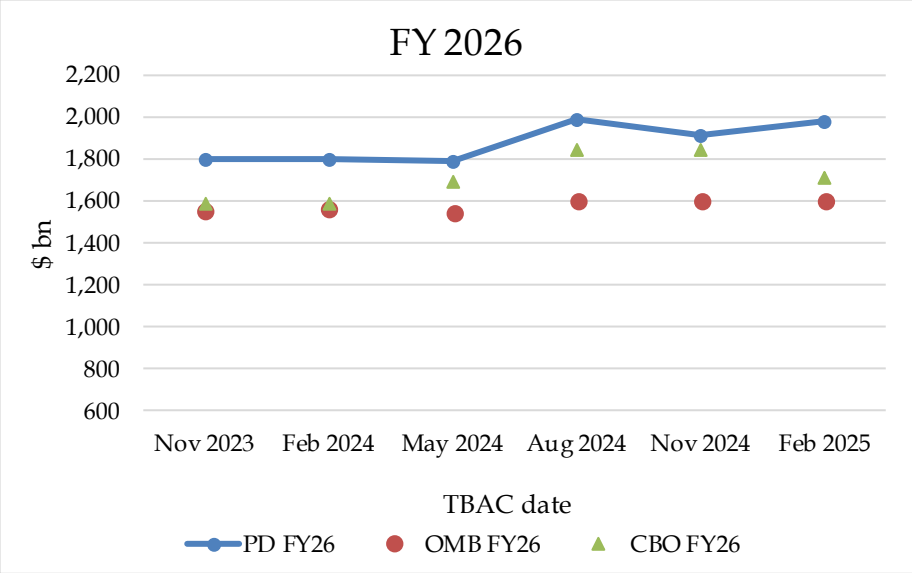
- The latest OMB and CBO estimates in the table below are provided for reference.

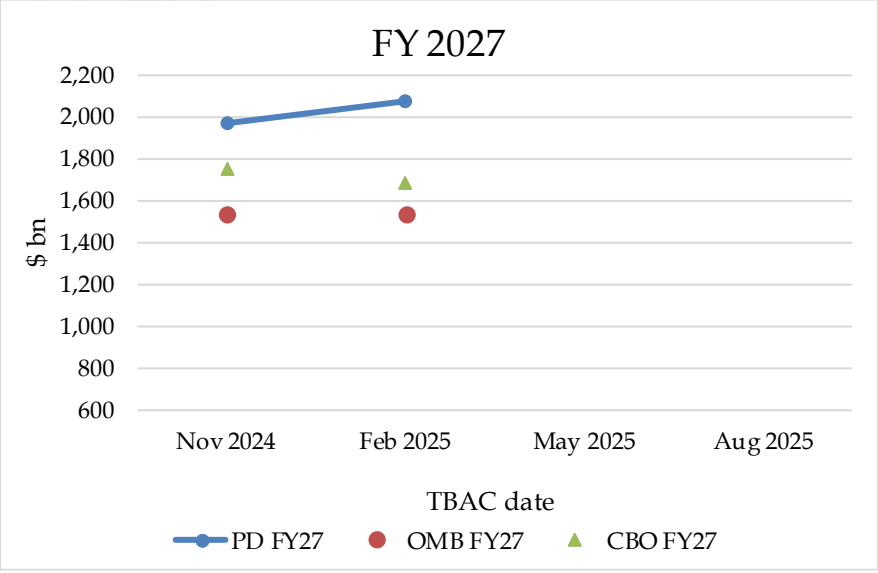
Deficit Estimates ($ billion)	PD 25th Percentile	Primary Dealers (Median)	PD 75th Percentile	Change from Prior Quarter (Median)	OMB	CBO
FY 2025	1,890	1,918	1,993	18	1,878	1,865
FY 2026	1,899	1,975	2,103	65	1,601	1,713
FY 2027	1,875	2,080	2,175	105	1,535	1,687
As of date	Jan-25	Jan-25	Jan-25		Jul-24	Jan-25

- OMB projections are using estimates are from Table S-3 of "Mid-Session Review Budget of The U.S. Government, Fiscal Year 2025," July 2024. CBO projections are using estimates are from "The Budget and Economic Outlook: 2025 to 2035," January 2025.

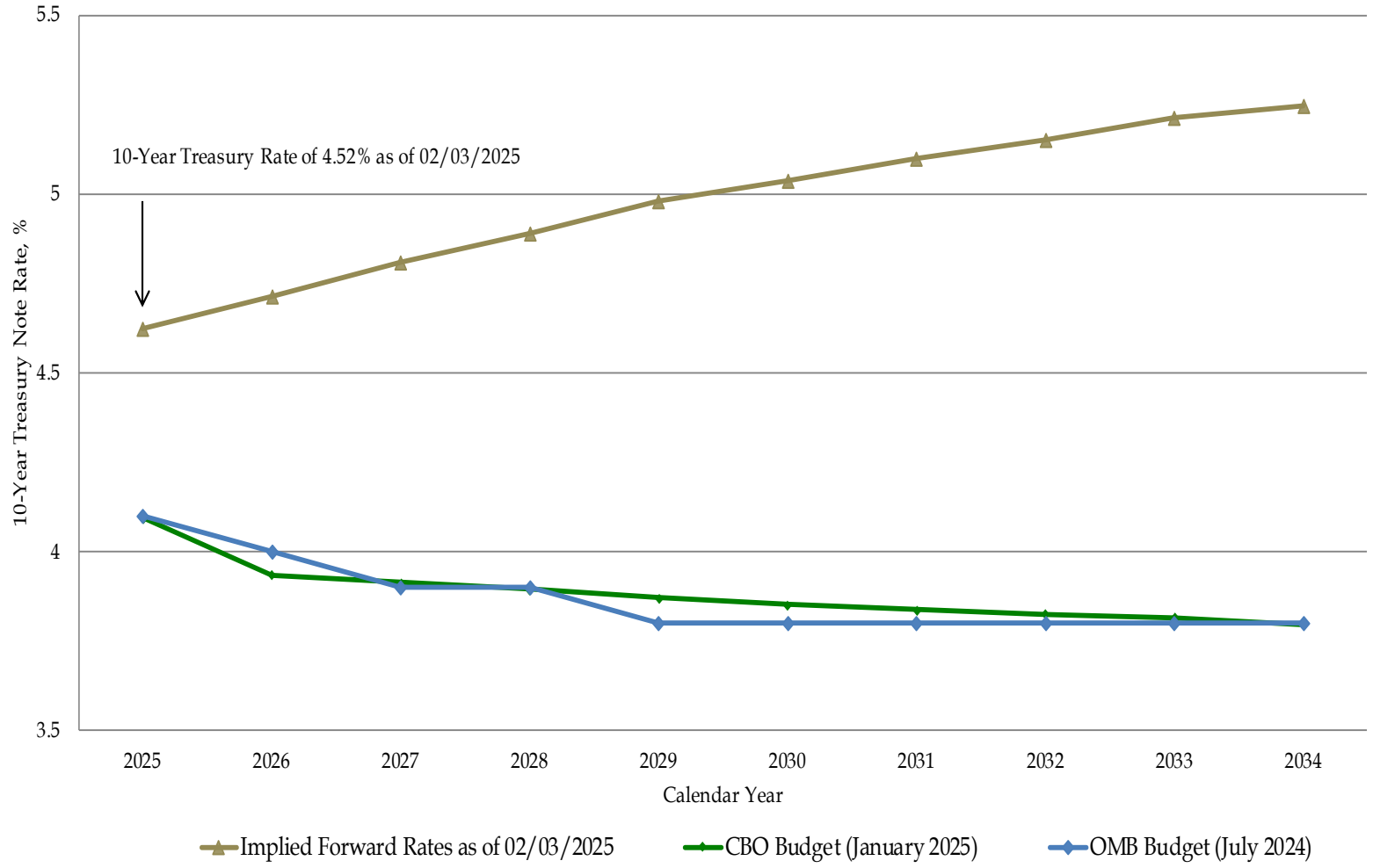
Evolution of Median Primary Dealer, OMB, and CBO Deficit Estimates







Interest Rate Assumptions: 10-Year Treasury Note

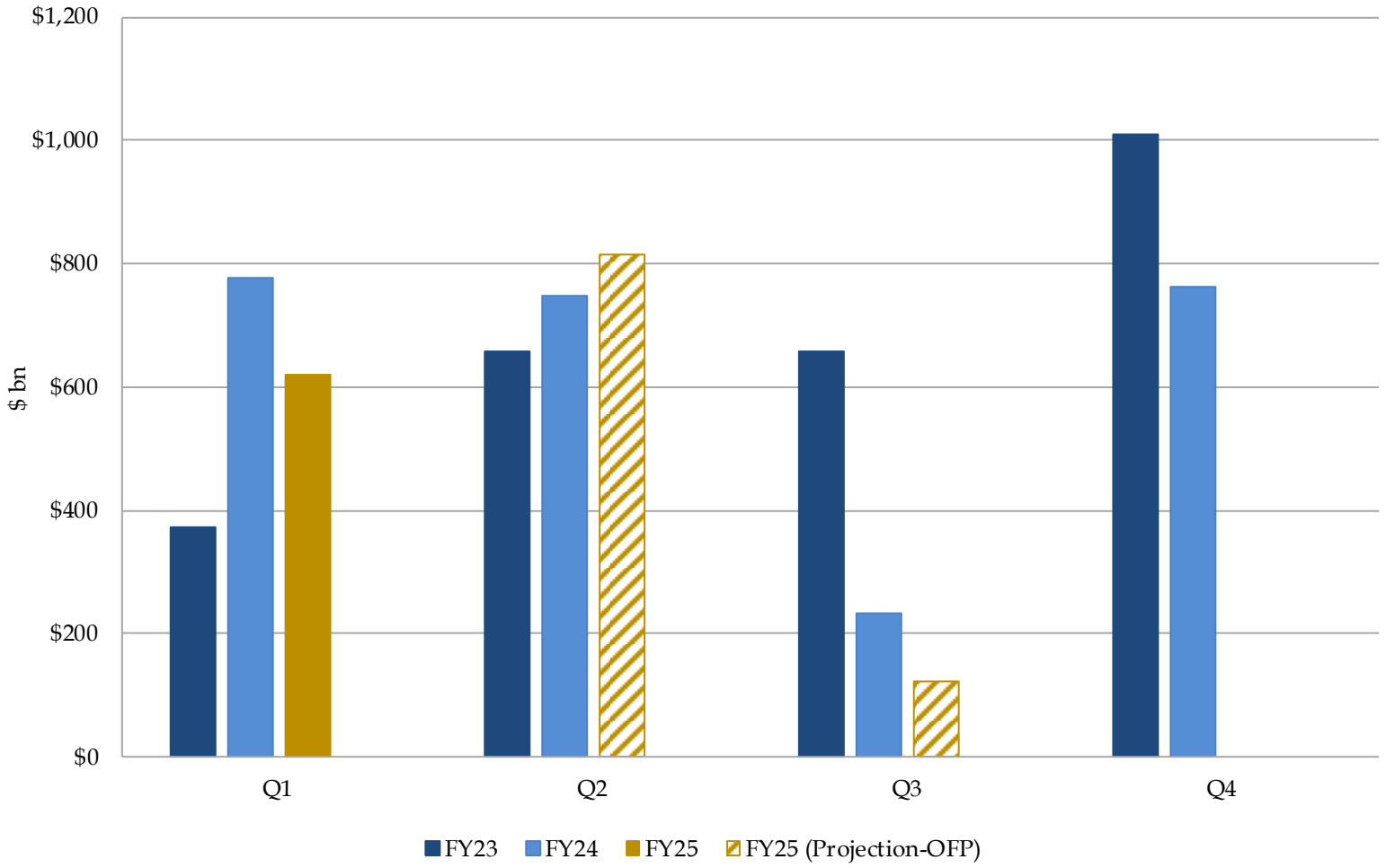


Section IV:
Estimated Borrowing Needs and Financing Implications

Assumptions for Financing Section (pages 16 to 20)

- Portfolio and SOMA holdings as of 12/31/2024, 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 January 2025, while using total bills outstanding of ~$6.19 trillion as of 12/31/2024, 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 12/31/2024, 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.

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 FY25 Q2

January - March 2025	
Assuming Constant Coupon Issuance Sizes[1]	
Treasury Announced Net Marketable Borrowing[2]	815
Net Coupon Issuance	451
Implied Change in Bills[3]	364

Sources of Privately-Held Financing in FY25 Q3

April - June 2025	
Assuming Constant Coupon Issuance Sizes[1]	
Treasury Announced Net Marketable Borrowing[2]	123
Net Coupon Issuance	505
Implied Change in Bills[3]	(382)

	January - March 2025 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance				April - June 2025 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
Security	Gross	Maturing	Net	Gross	Maturing	Net	Security	Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	86	68	18	172	136	36	2-Year FRN	86	68	18	258	204	54
2-Year	207	126	81	414	251	163	2-Year	207	126	81	621	377	244
3-Year	174	150	24	348	316	32	3-Year	174	134	40	522	449	73
5-Year	210	100	110	420	196	224	5-Year	210	125	85	630	321	309
7-Year	132	68	64	264	138	126	7-Year	132	64	68	396	202	194
10-Year	120	53	67	240	112	128	10-Year	120	50	70	360	163	197
20-Year	42	0	42	84	0	84	20-Year	42	0	42	126	0	126
30-Year	69	3	66	138	7	131	30-Year	69	0	69	207	7	200
5-Year TIPS	0	0	0	46	39	7	5-Year TIPS	46	32	14	92	71	21
10-Year TIPS	38	40	(2)	55	40	15	10-Year TIPS	18	0	18	73	40	33
20-Year TIPS[4]	0	27	(27)	0	27	(27)	20-Year TIPS[4]	0	0	0	0	27	(27)
30-Year TIPS	9	0	9	9	0	9	30-Year TIPS	0	0	0	9	0	9
Coupon Subtotal	1,087	636	451	2,190	1,262	928	Coupon Subtotal	1,104	599	505	3,294	1,861	1,433

[1] Keeping announced issuance sizes and patterns constant for nominal coupons, TIPS, and FRNs.
[2] Assumes end-of-March 2025 and end-of-June 2025 cash balances of $850 billion and $850 billion respectively versus end-of-December 2024 cash balance of $722 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] Implied change in bills doesn't incorporate the effects of any buyback operations conducted during the specified periods.
[4] Treasury is currently not issuing 20-year TIPS.

Longer-Term Privately-Held Net Marketable Borrowing Estimates and SOMA Redemption Assumptions

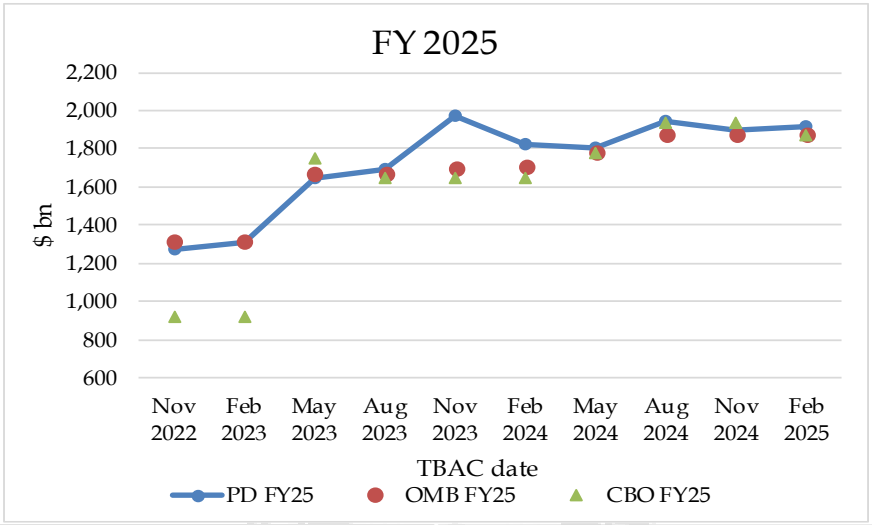
FY 2025-2027 Deficits and Privately-Held Net Marketable Borrowing Estimates, in $ billions

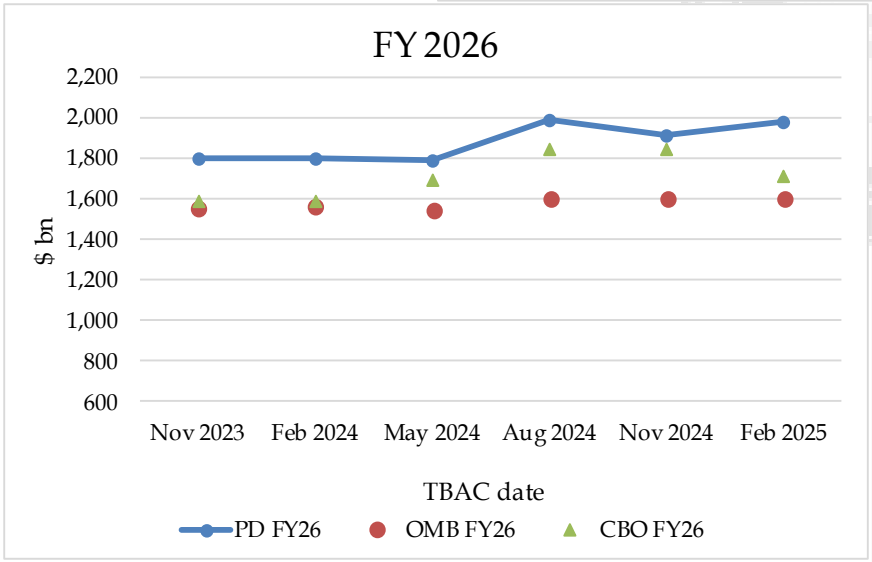
	Primary Dealer			OMB	CBO
	25th	Median	75th		
FY 2025 Deficit	1,890	1,918	1,993	1,878	1,865
FY 2026 Deficit	1,899	1,975	2,103	1,601	1,713
FY 2027 Deficit	1,875	2,080	2,175	1,535	1,687
FY 2025 SOMA Redemption	169	225	266		
FY 2026 SOMA Redemption	0	0	0		
FY 2027 SOMA Redemption	0	0	0		
FY 2025 Privately-Held Net Marketable Borrowing*	2,141	2,205	2,334	2,126	2,093
FY 2026 Privately-Held Net Marketable Borrowing*	1,988	2,078	2,190	1,695	1,780
FY 2027 Privately-Held Net Marketable Borrowing*	1,990	2,161	2,258	1,648	1,753
Estimates as of:		Jan-25		Jul-24	Jan-25

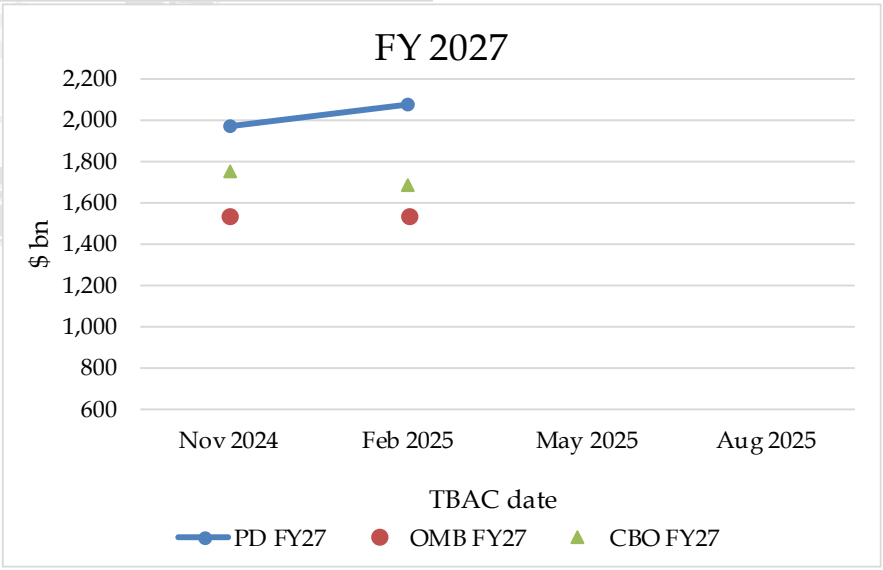
* All privately-held net marketable borrowing estimates are "normalized" using:
- 1) the median Primary Dealer's estimates for SOMA redemptions, and
- 2) assumed Fiscal Year 2025 cash balance of $850 billion, held constant in out years.

- OMB projections are using estimates are from Table S-3 of "Mid-Session Review Budget of The U.S. Government, Fiscal Year 2025," July 2024.
- CBO projections are using estimates are from "The Budget and Economic Outlook: 2025 to 2035," January 2025.

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



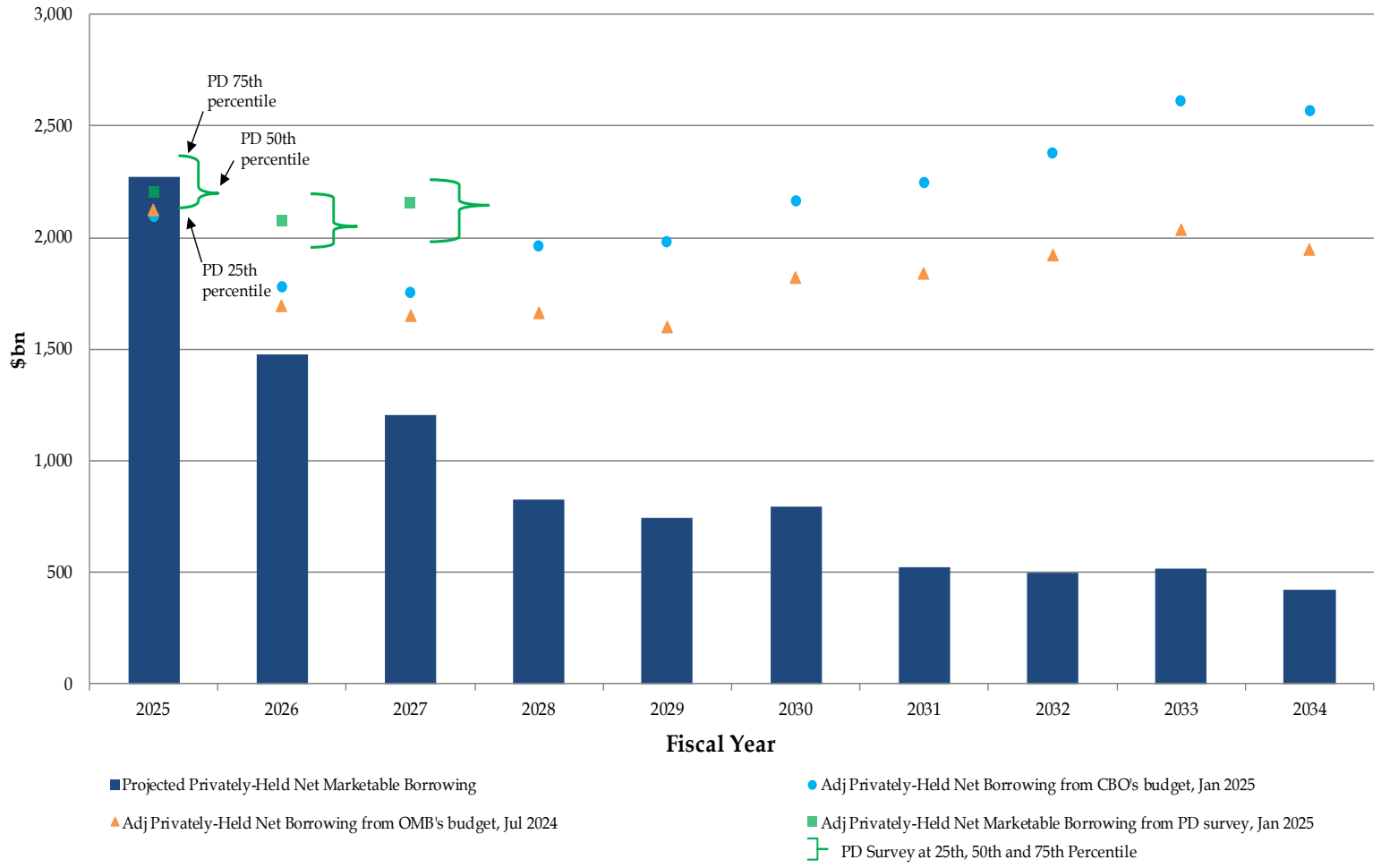




* Note that both the OMB and CBO privately-held net marketable borrowing estimates are calculated by adjusting their respective deficit estimates using dealer's median SOMA redemption estimates. In addition, all the PD, OMB and CBO privately-held borrowing estimates are normalized with the same cash balance changes. See slide 18 for details.

Projected Privately-Held Net Marketable Borrowing

Assuming Private Coupon Issuance & Total Bills Outstanding Remain Constant as of 1/31/2025*



*Treasury's latest primary dealer survey median/interquartile range estimates can be found on page 18. OMB projections are using estimates from Table S-3 of "Mid-Session Review Budget of The U.S. Government, Fiscal Year 2025," July 2024. CBO projections are using estimates from "The Budget and Economic Outlook: 2025 to 2035," January 2025. OMB and CBO borrowing estimates from FY25 to FY27 are normalized to privately-held net marketable borrowing after adding PD survey median SOMA redemption assumptions for FY25/26/27. In addition, all privately-held net marketable borrowing estimates are normalized with a cash balance assumption of $850 billion.

Section V:
Select Portfolio Metrics

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

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.

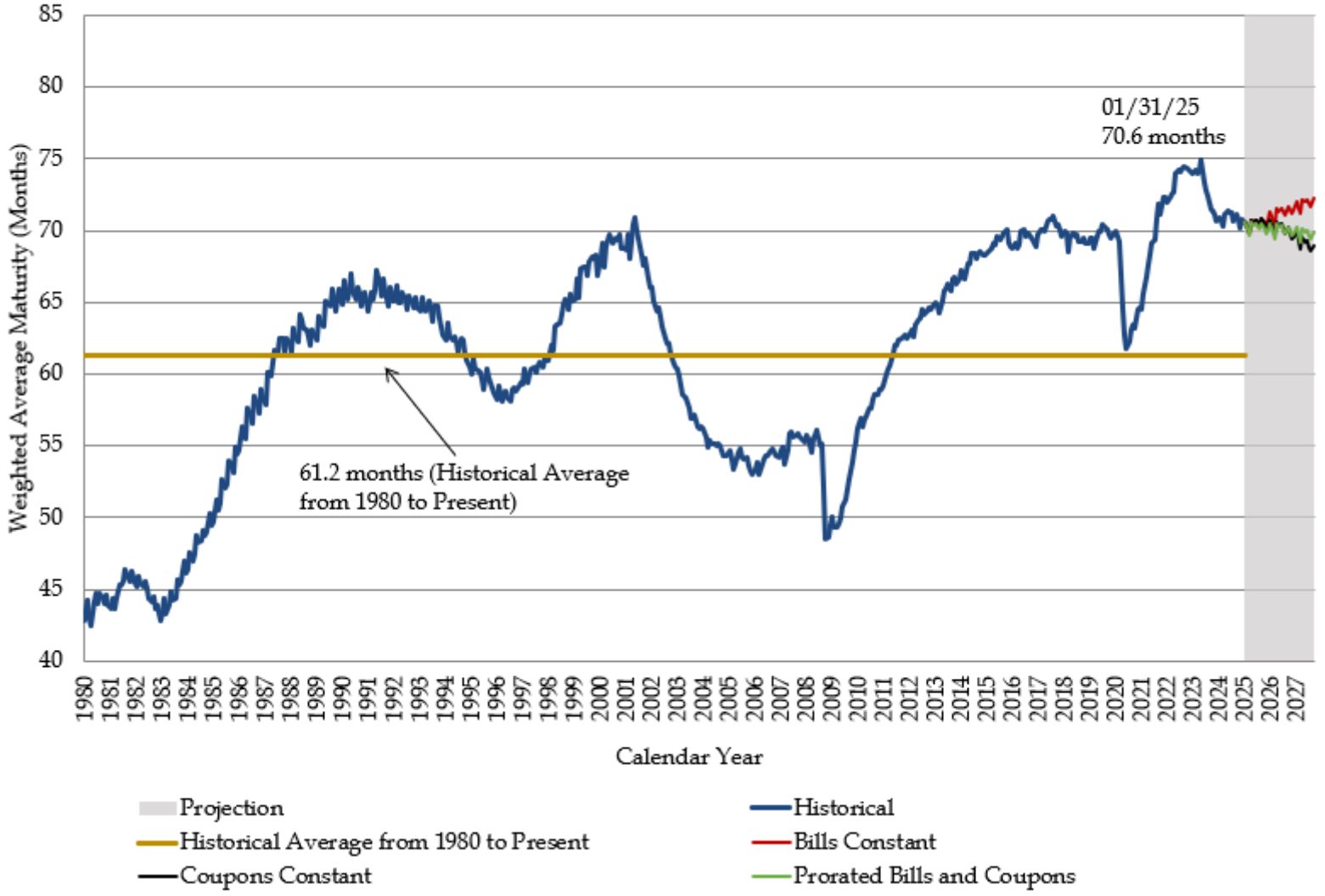
Projections illustrate how various portfolio metrics could evolve under three hypothetical financing scenarios. The scenarios were chosen to illustrate a potential range of portfolio metric outcomes based on hypothetical issuance choices.

The scenarios are:

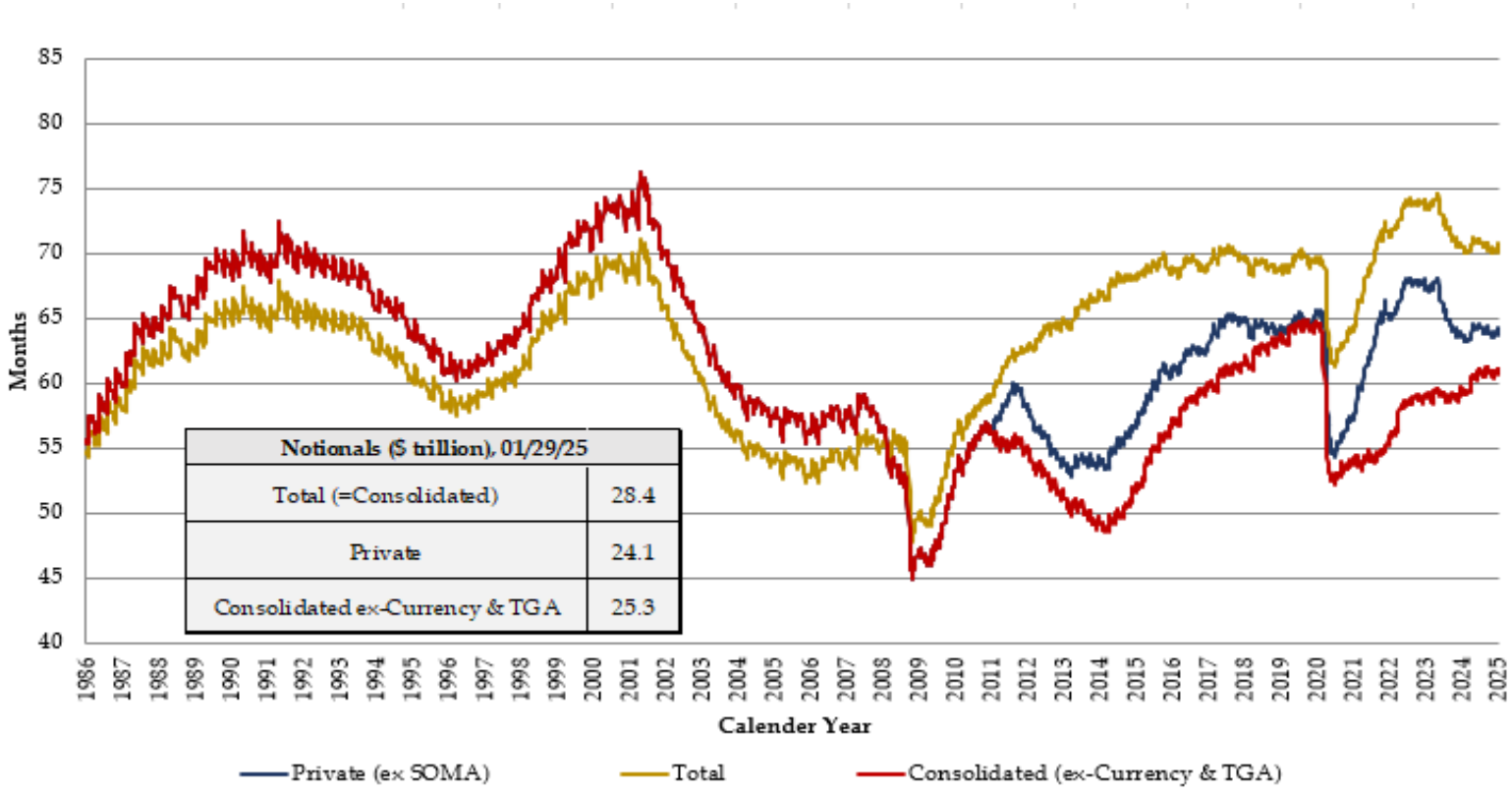
1) ***"Coupons Constant":*** Treasury maintains **coupon, FRN, and TIPS auction sizes constant** as of January 2025 and addresses any changes in financing needs by only increasing or decreasing T-bill auction sizes;
2) ***"Bills Constant":*** Treasury maintains **T-bills aggregate supply constant** at $6.4 trillion as of 1/31/2025 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 22.4% as of 1/31/2025 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 FY25, FY26 & FY27 (see page 18).

Weighted Average Maturity of Marketable Debt Outstanding

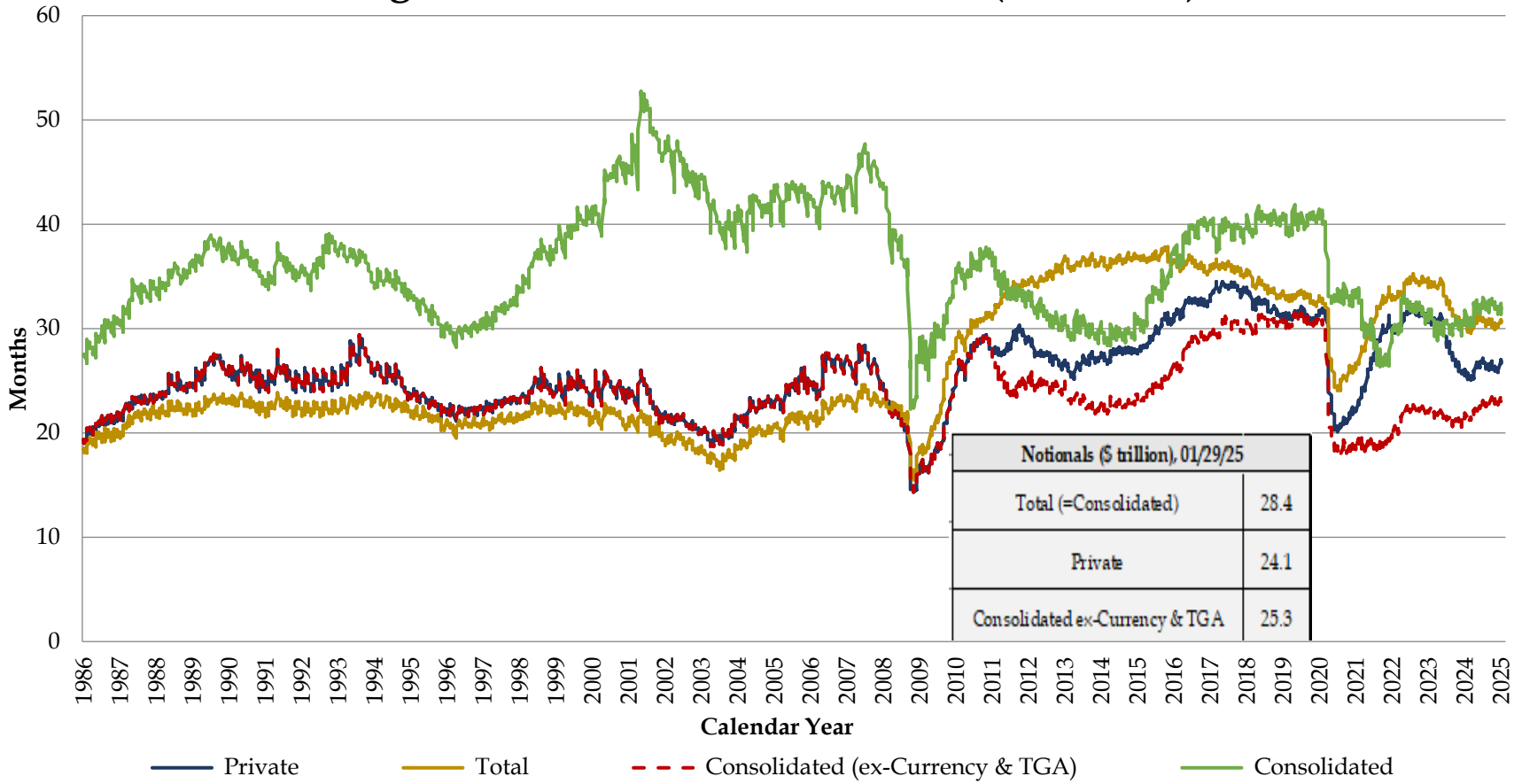


Consolidated **WANRR** Calculation*



* 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.

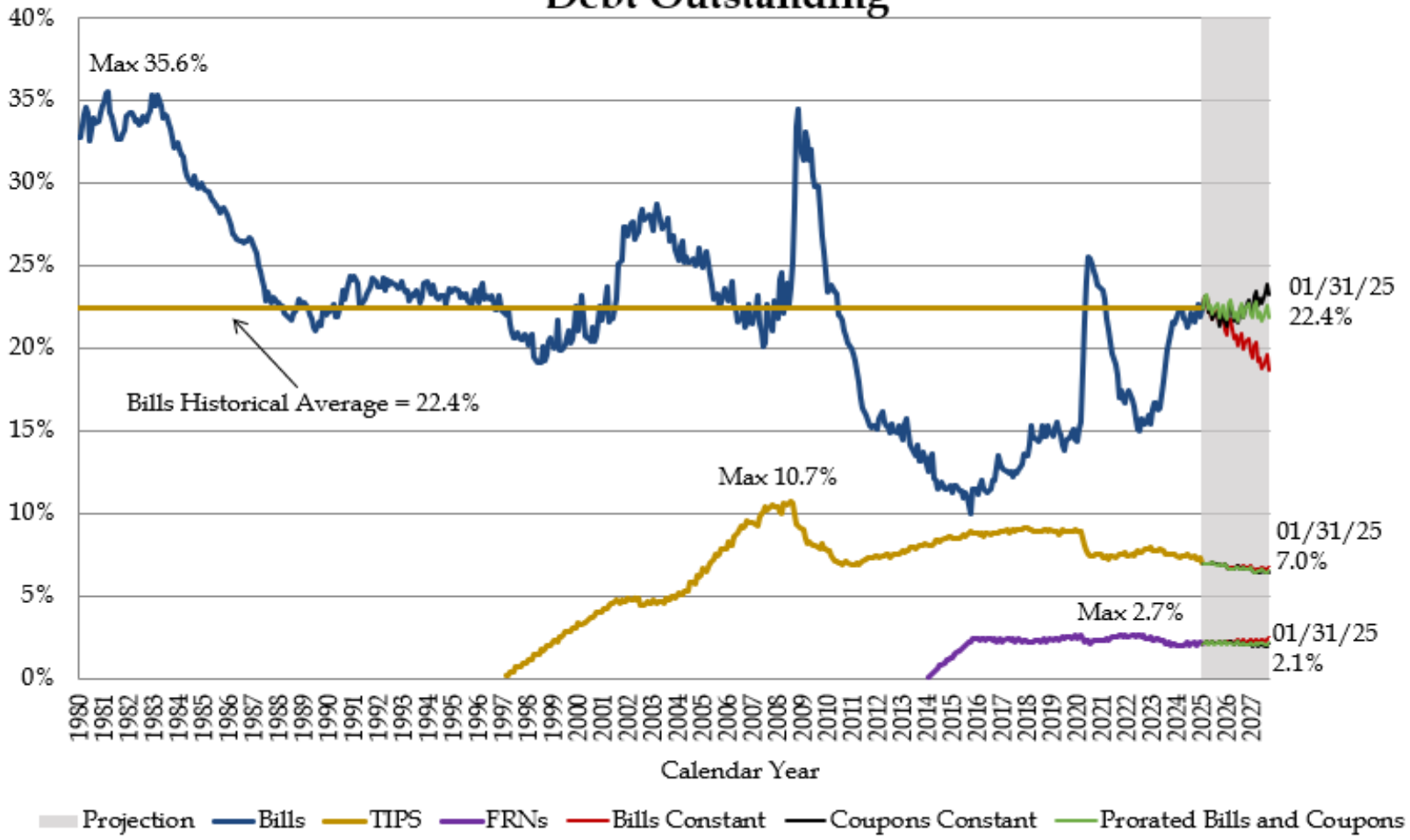
Weighted Median Next Rate Reset (WMNRR)*



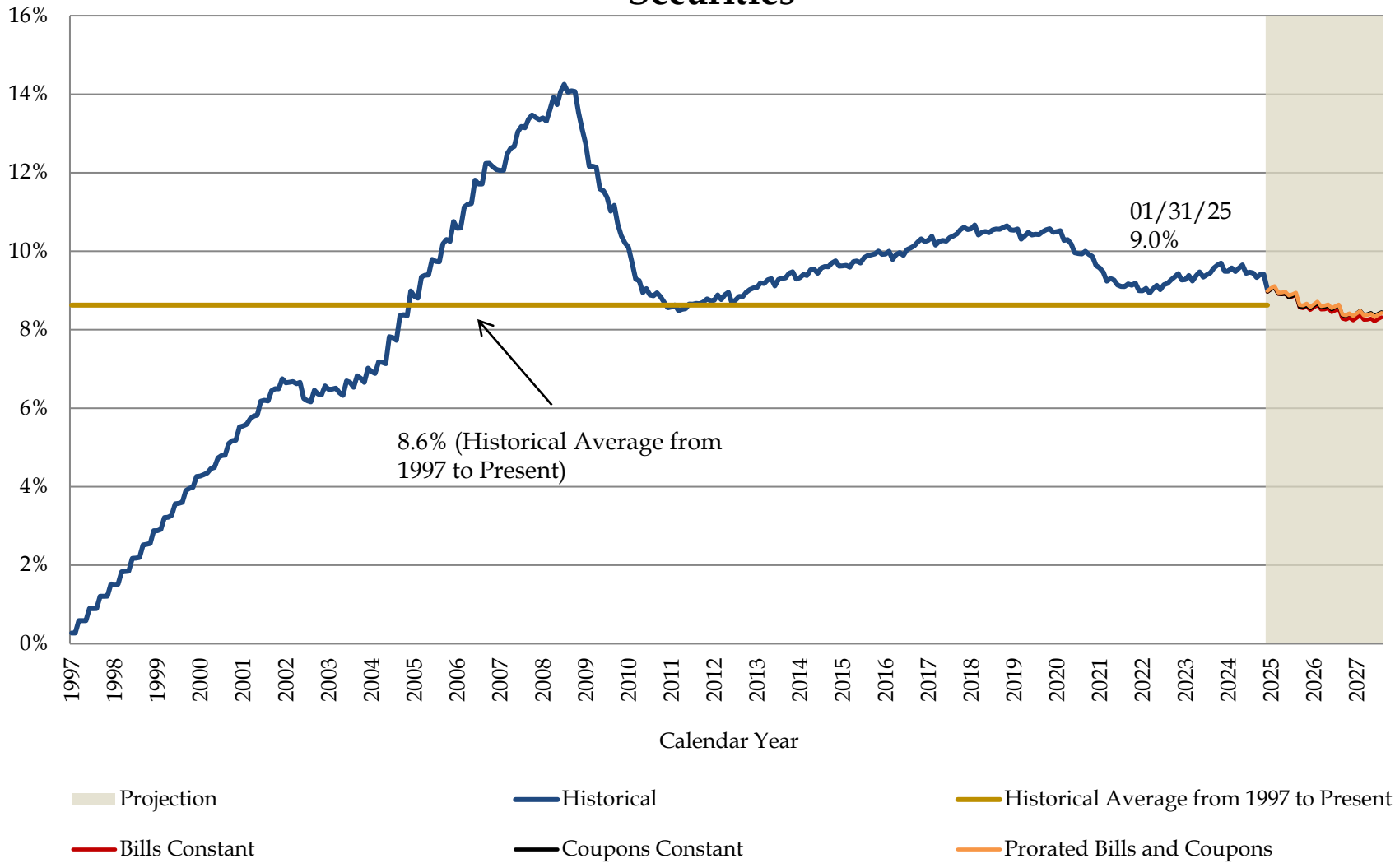
Weighted Median Next Rate Reset (WMNRR) of the Treasury portfolio (Total or Private) is the time, in months, by which half the portfolio by current-face is scheduled to mature (or be subject to rate-reset for FRNs). In most cases no existing tenor/coupon-date will demarcate exactly 50% of cumulative-notional; 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



TIPS Outstanding as a Percentage of Total Coupon Bearing Securities



Measures of Treasury Bill Supply

Total Bills Outstanding/Nominal GDP

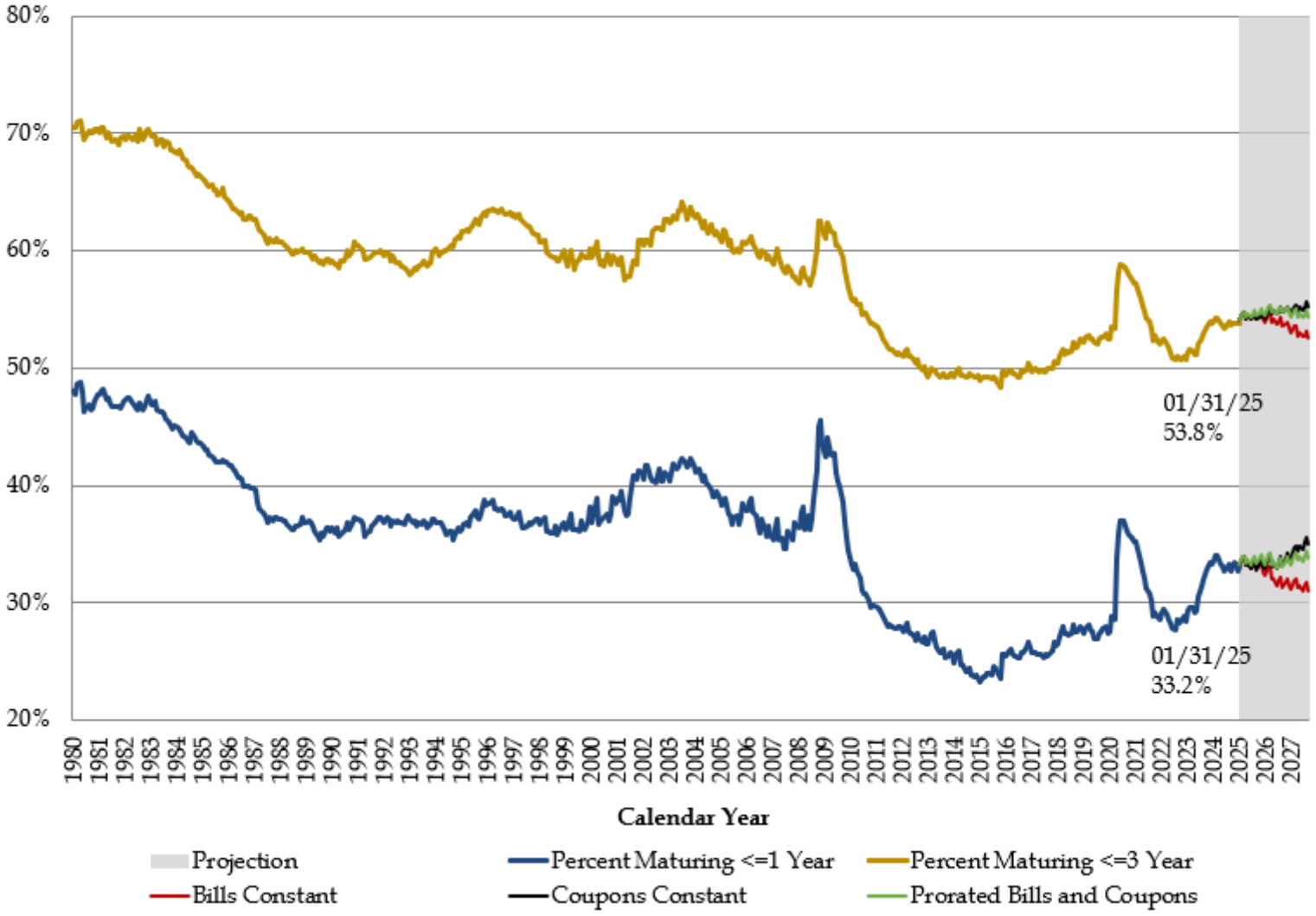
Total Bills Outstanding/Commercial Bank Deposits

Total Bills Outstanding/Total MMF AUM

Total Bills Outstanding/Federal Reserve Liabilities ex. TGA

Source: Bloomberg and Treasury

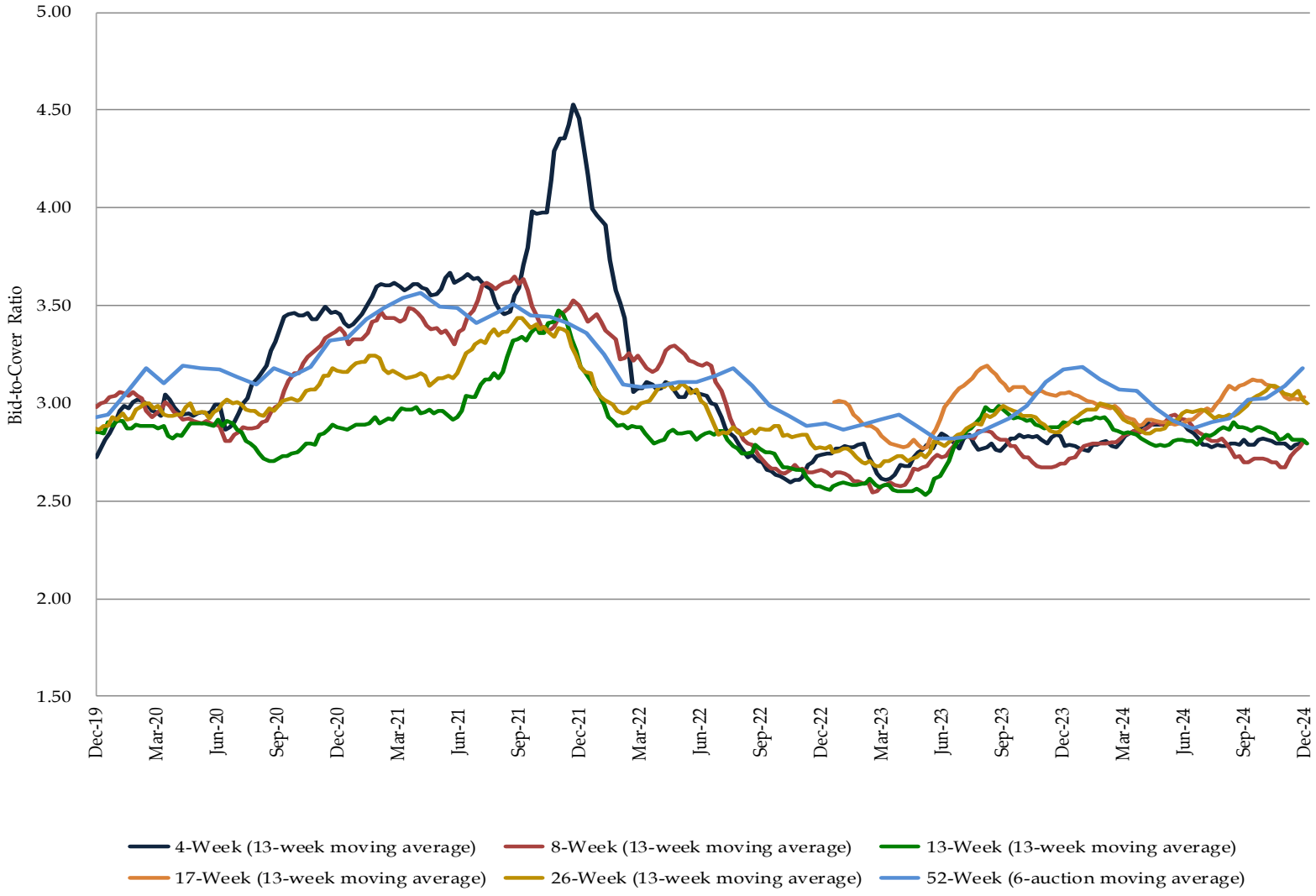
Treasury Maturity Profile



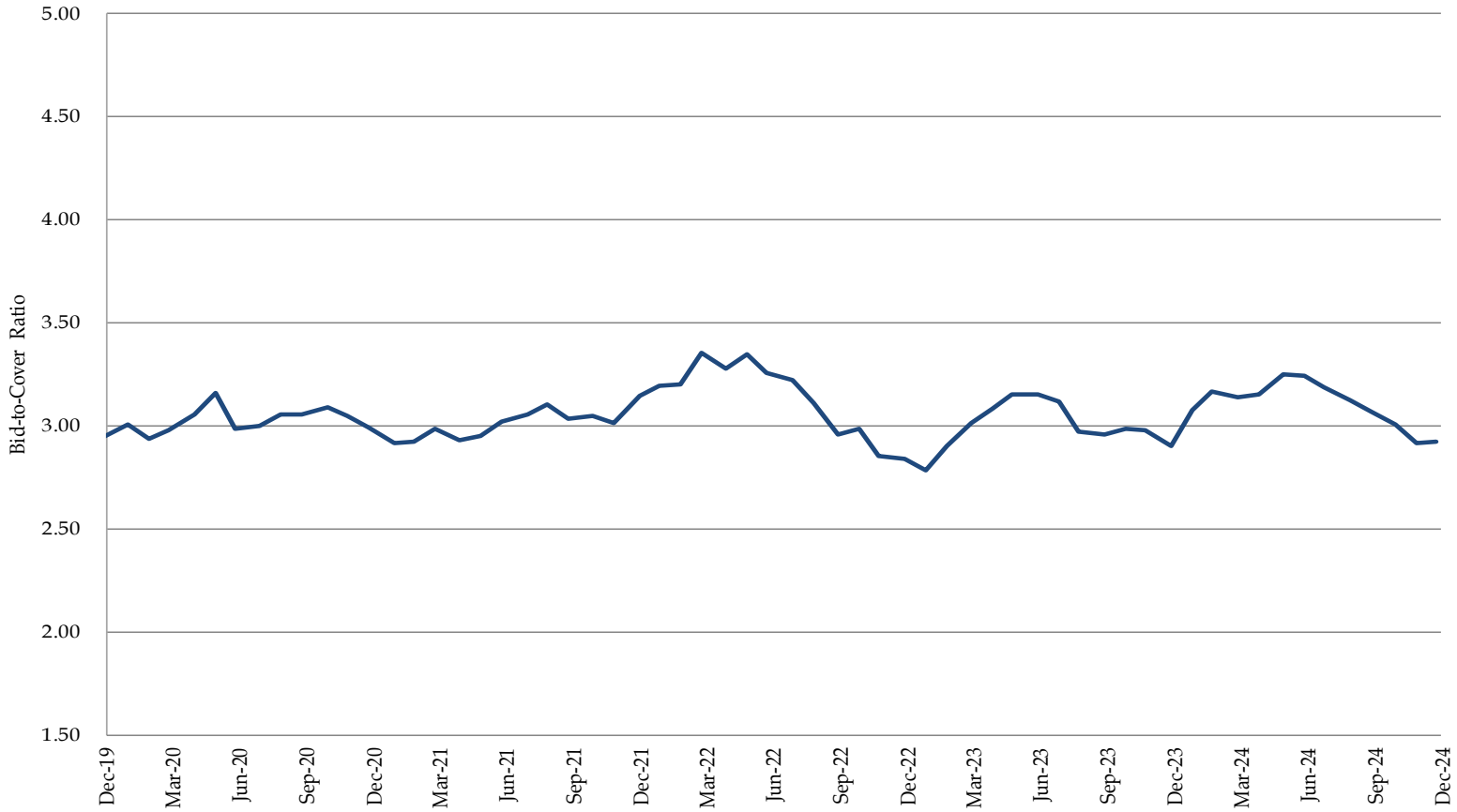
Section VI:
Select Demand Metrics

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

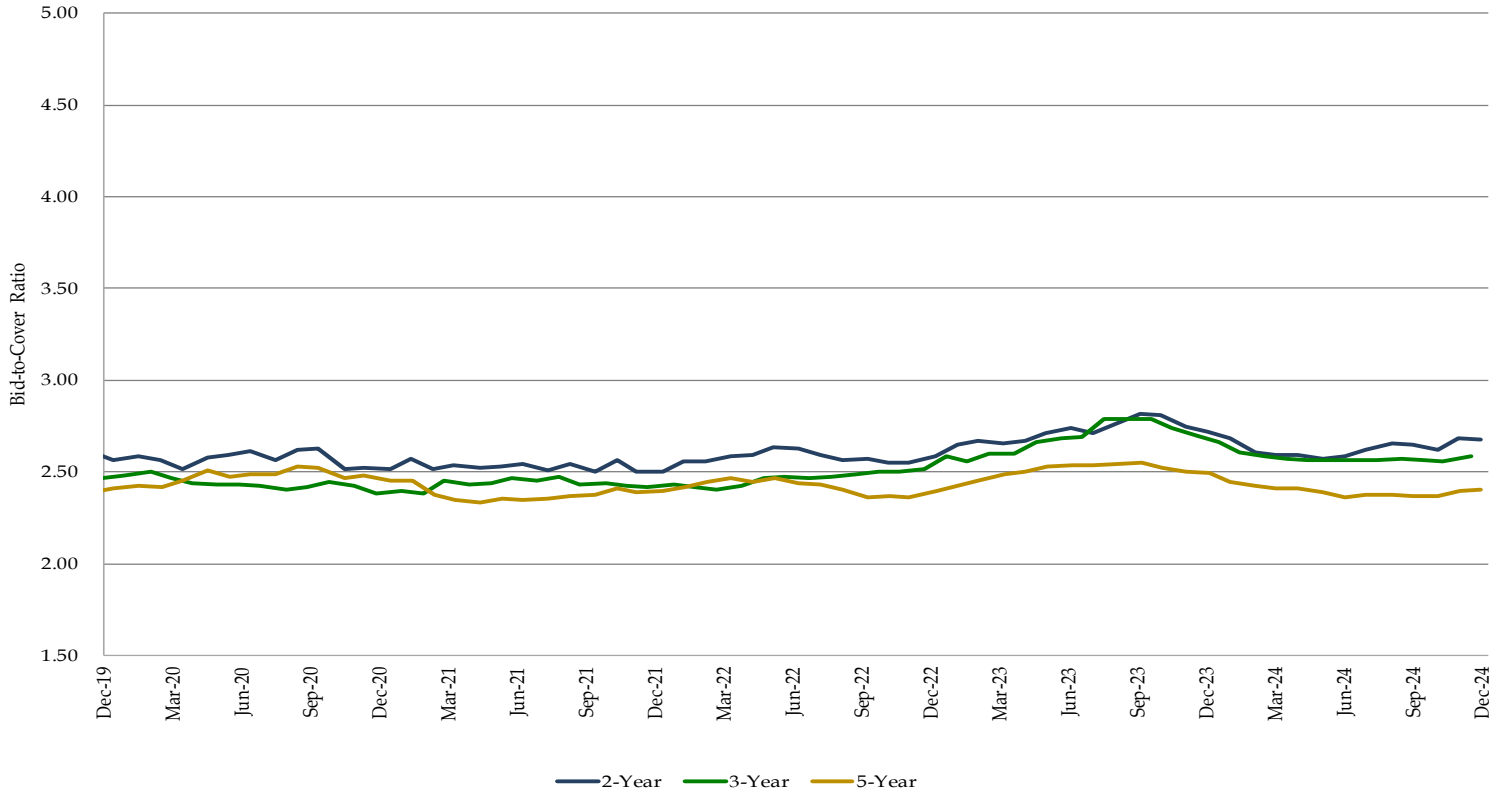
Bid-to-Cover Ratios for Treasury Bills



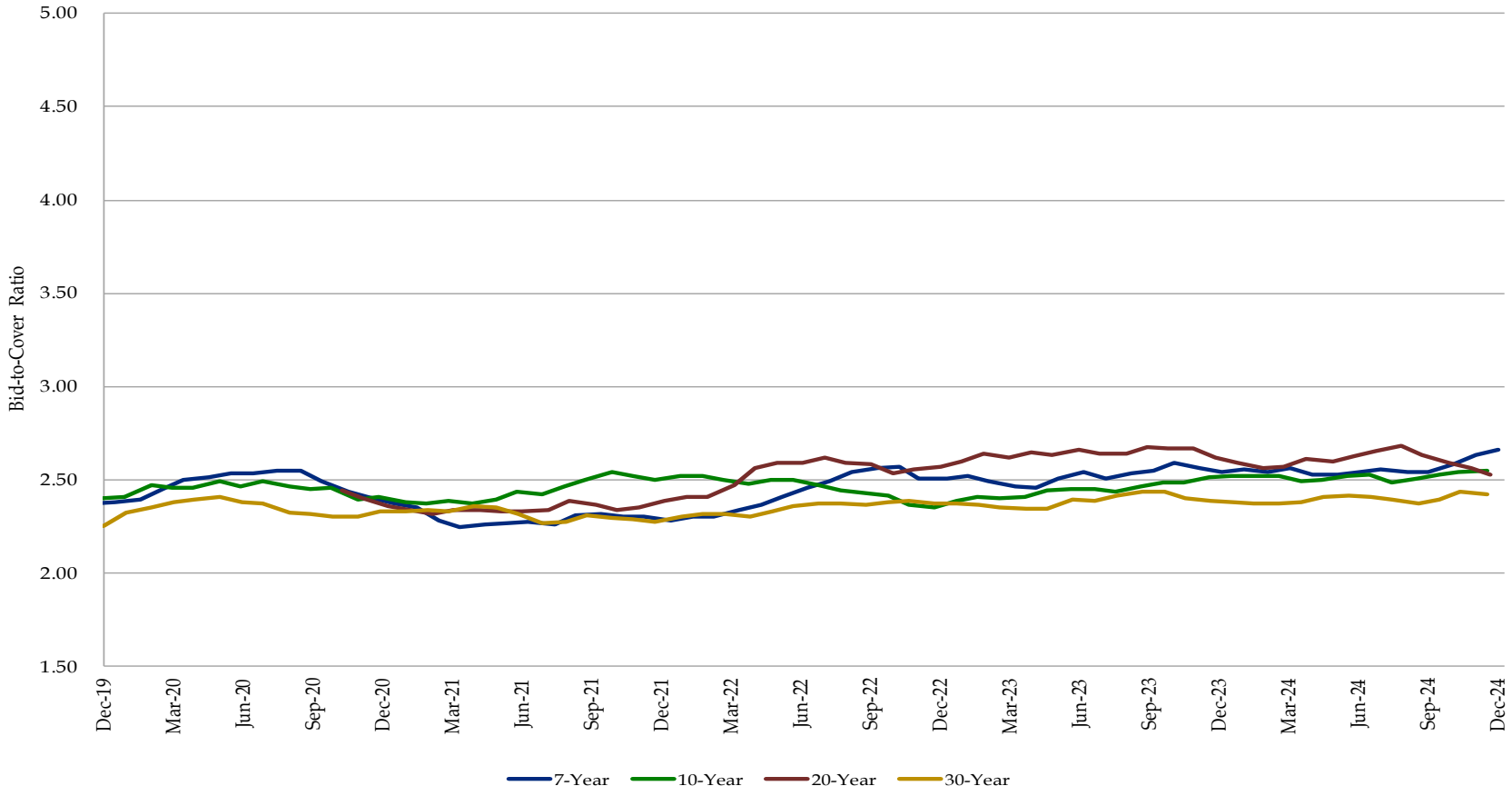
Bid-to-Cover Ratios for FRNs
(6-Month Moving Average)



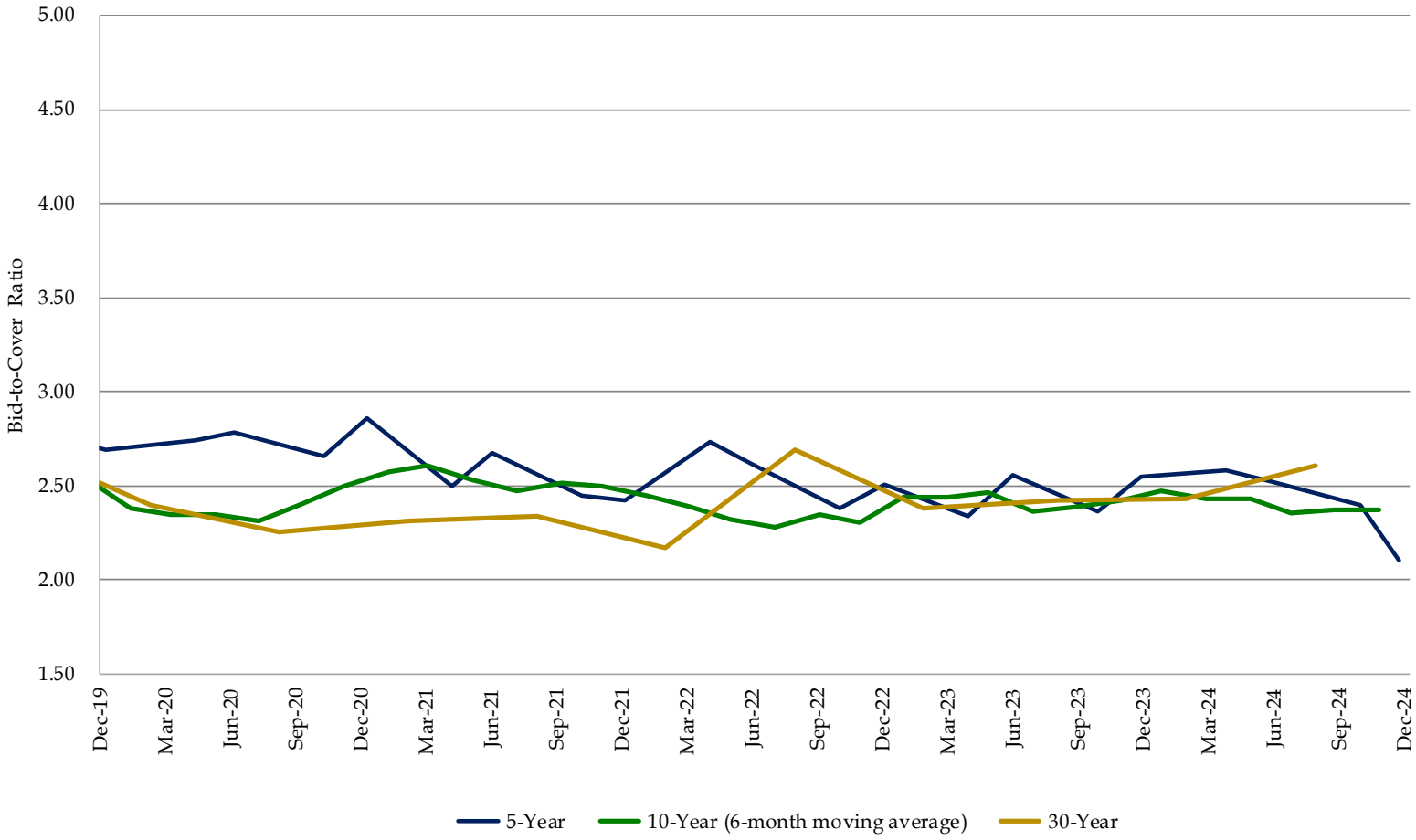
Bid-to-Cover Ratios for 2-, 3-, and 5-Year Nominal Securities
(6-Month Moving Average)



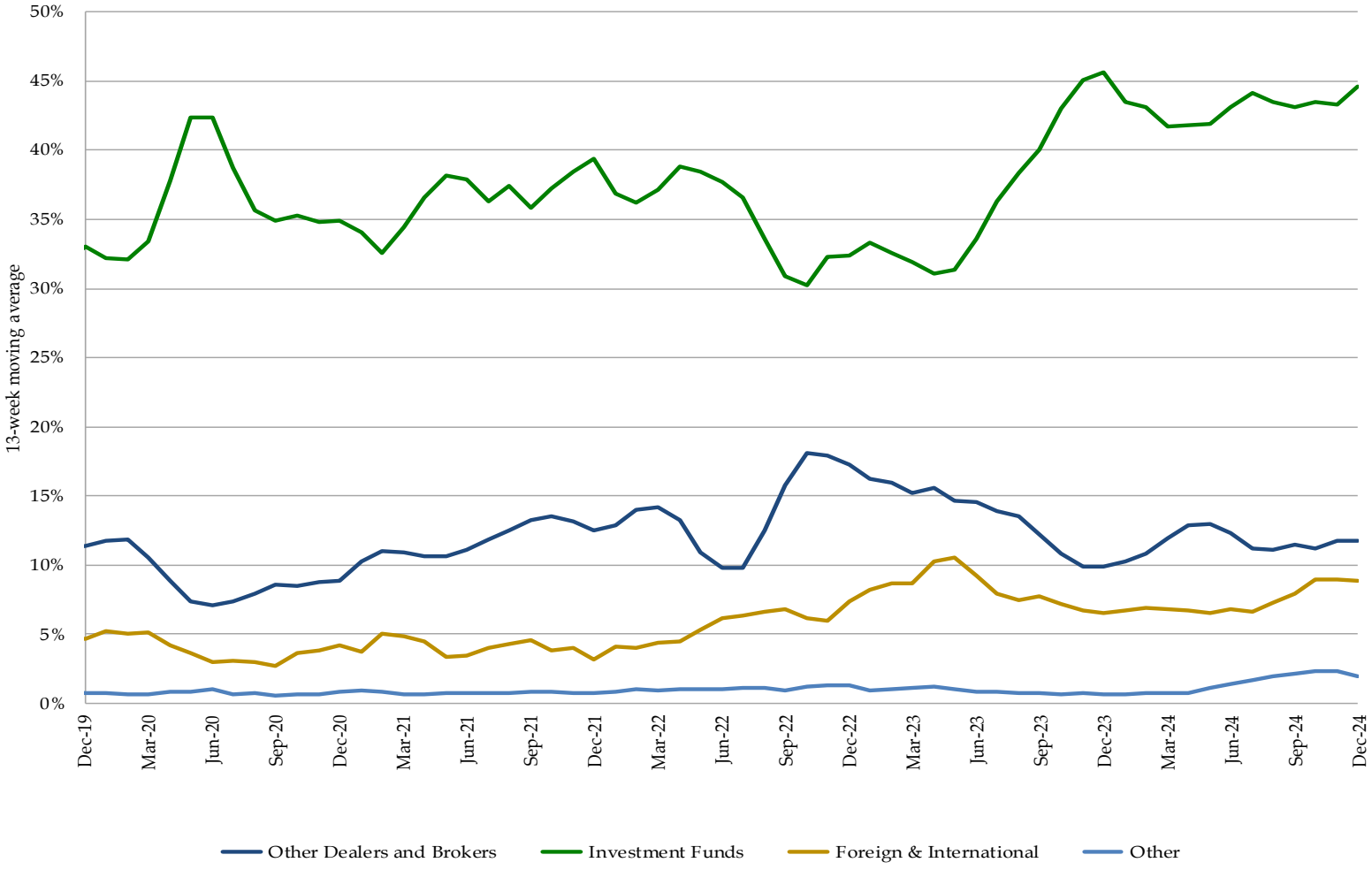
Bid-to-Cover Ratios for 7-, 10-, 20-, and 30-Year Nominal Securities (6-Month Moving Average)



Bid-to-Cover Ratios for TIPS

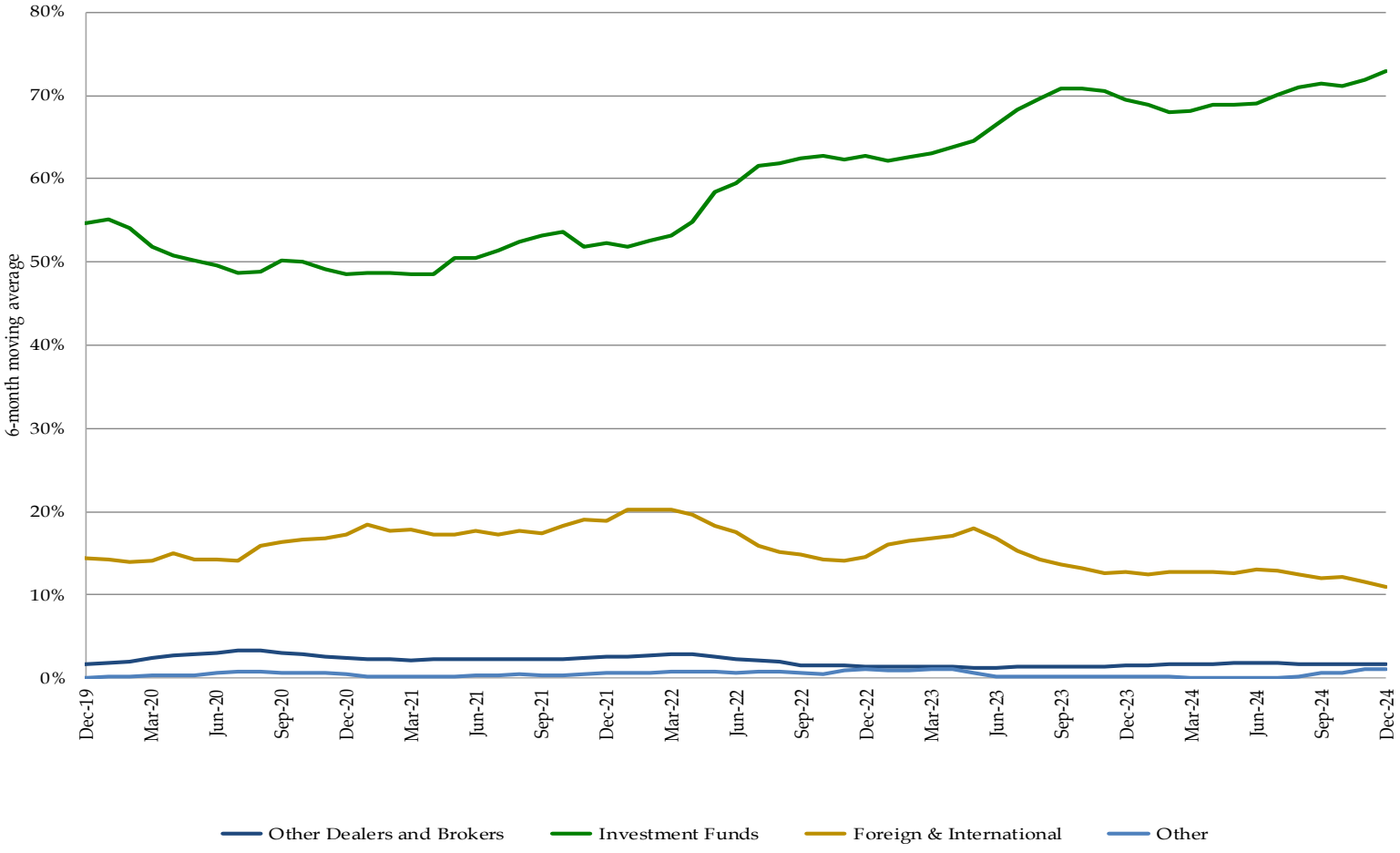


Percent Awarded in Bill Auctions by Investor Class (13-Week Moving Average)



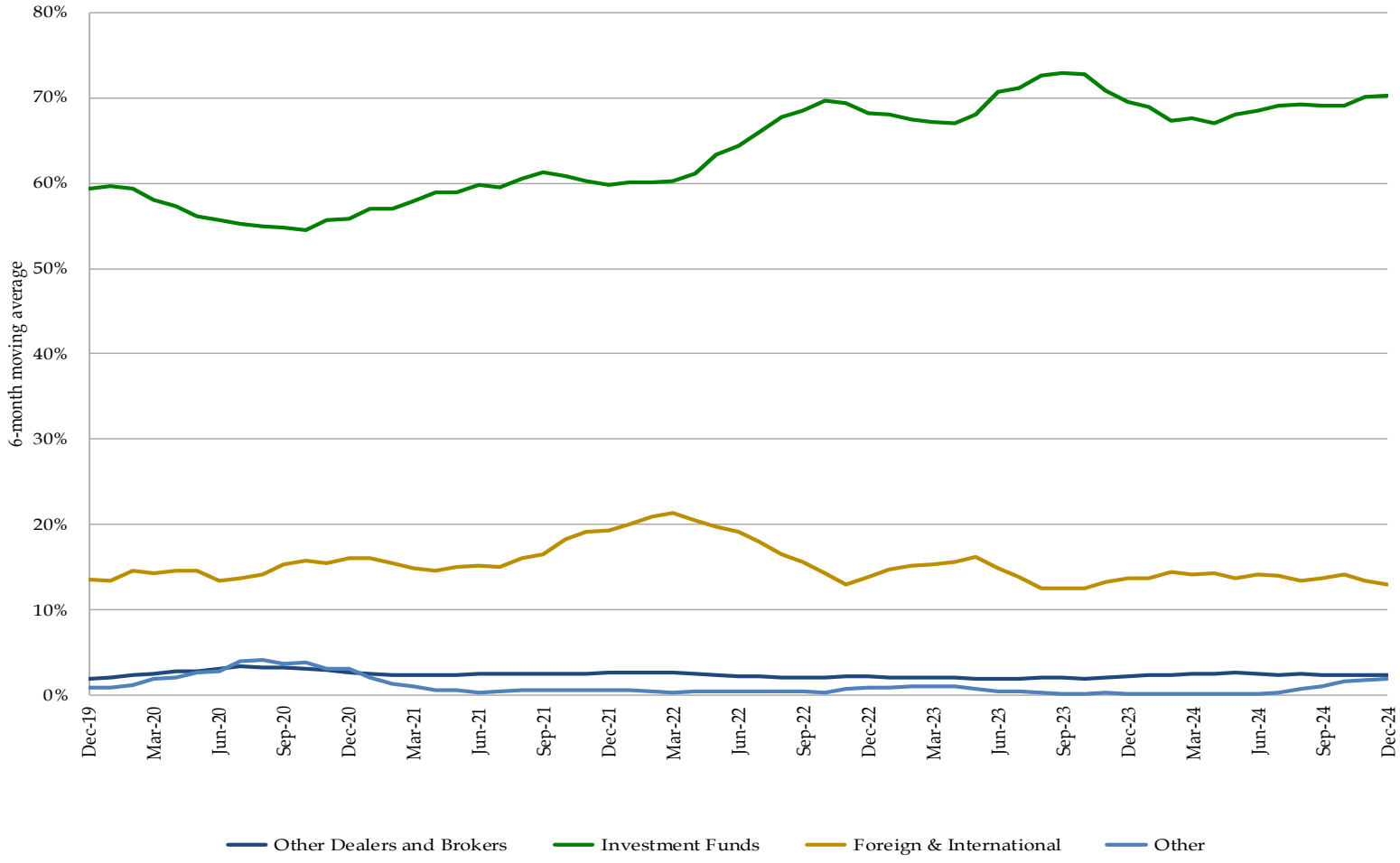
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



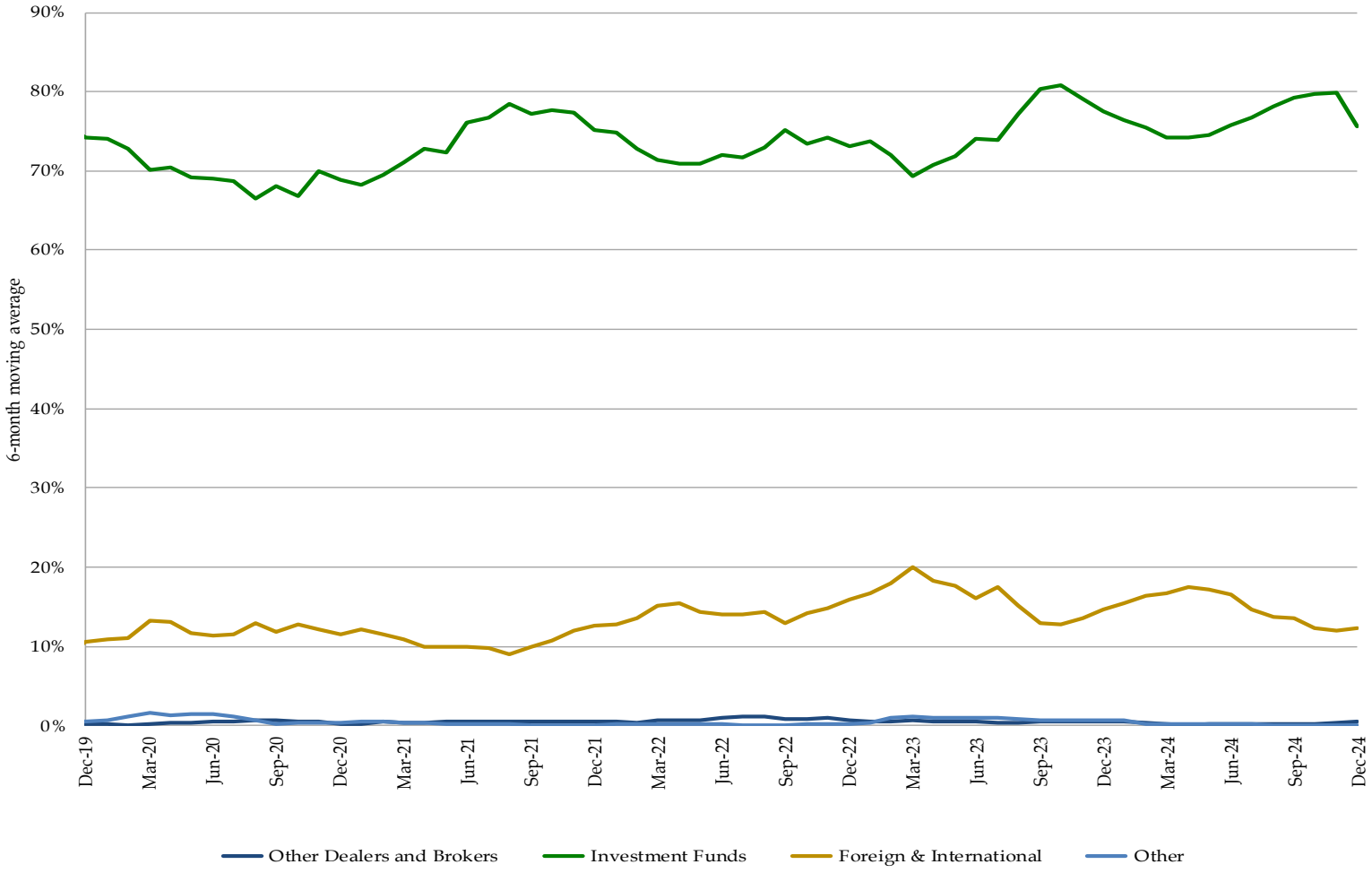
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



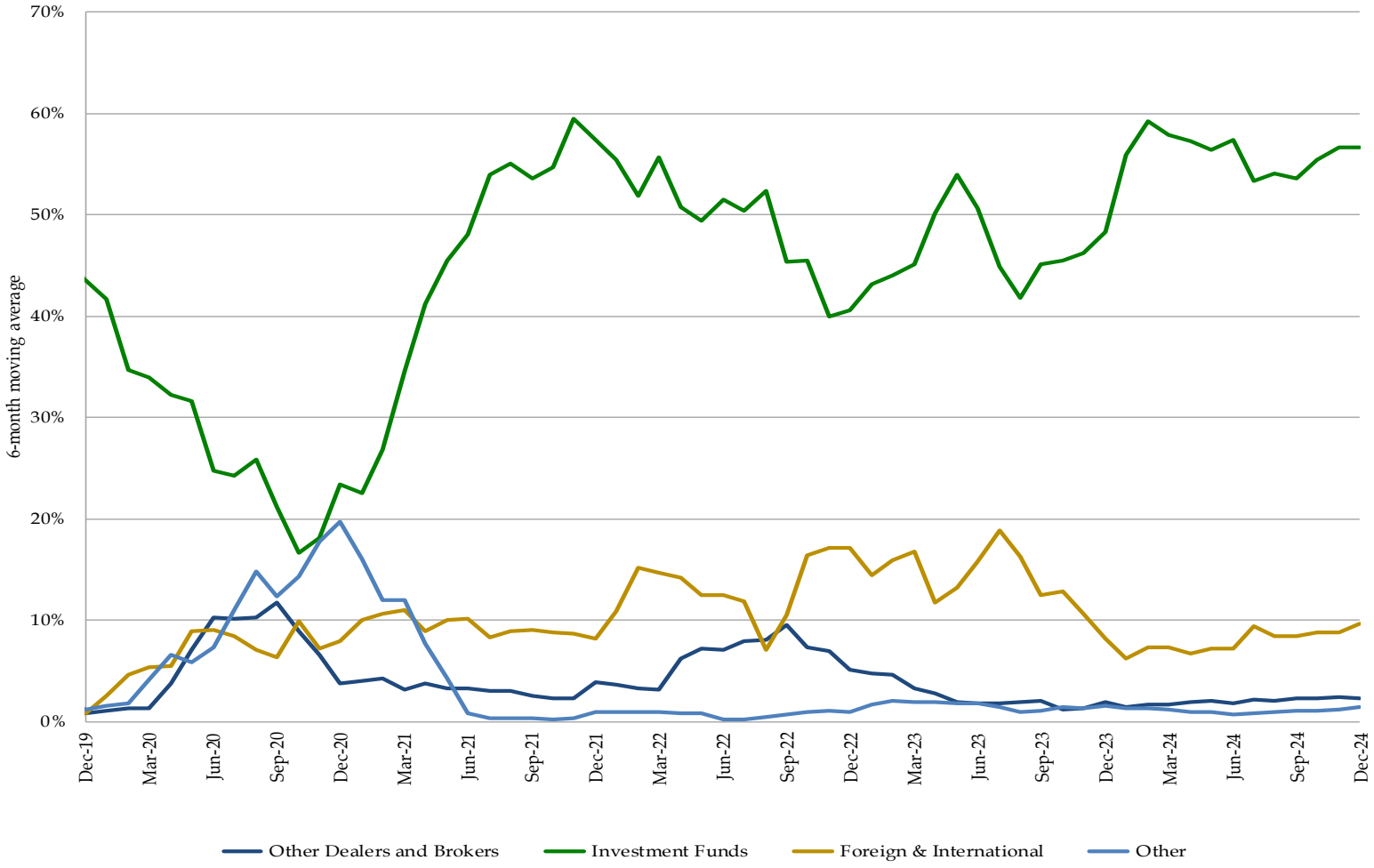
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



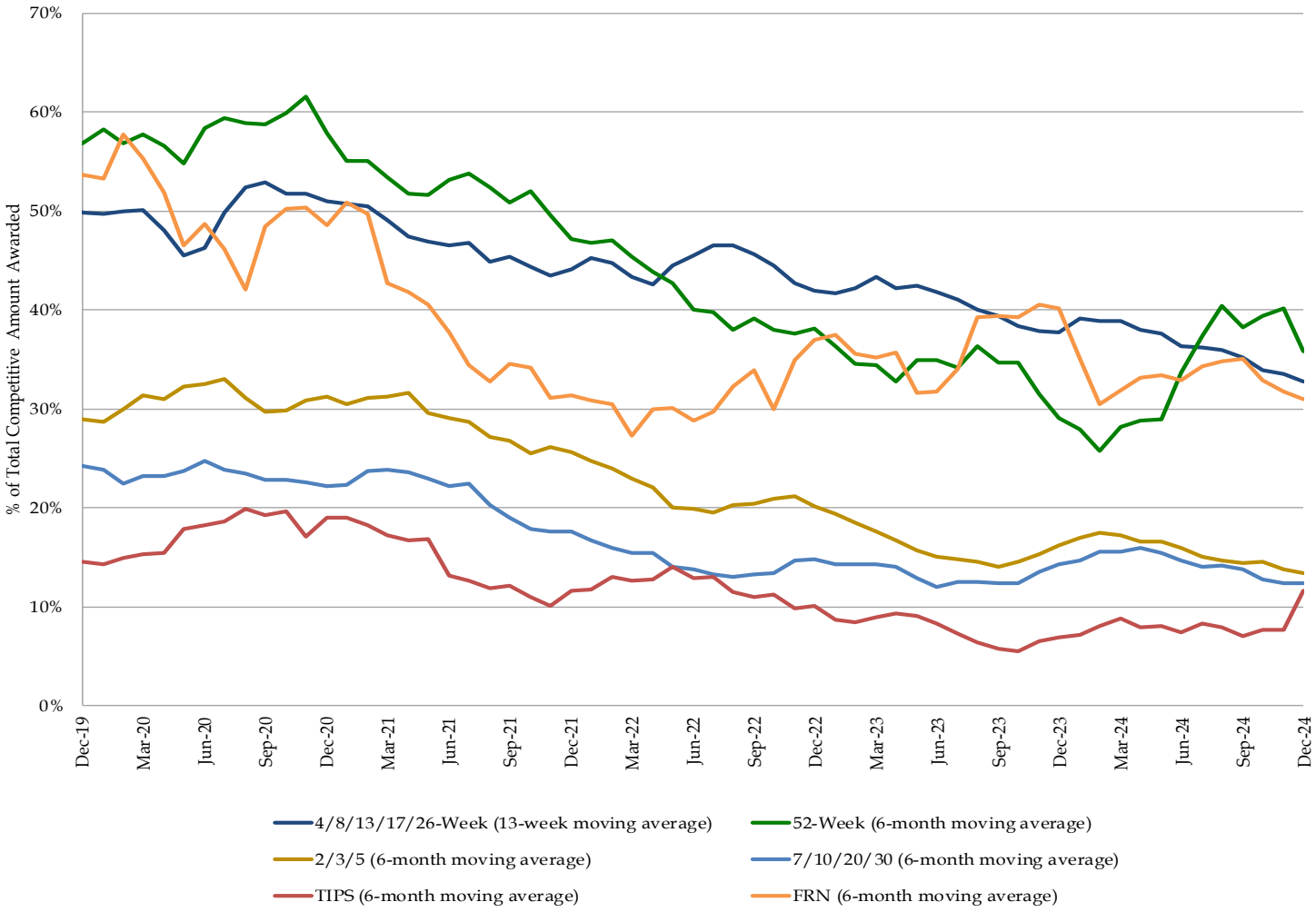
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



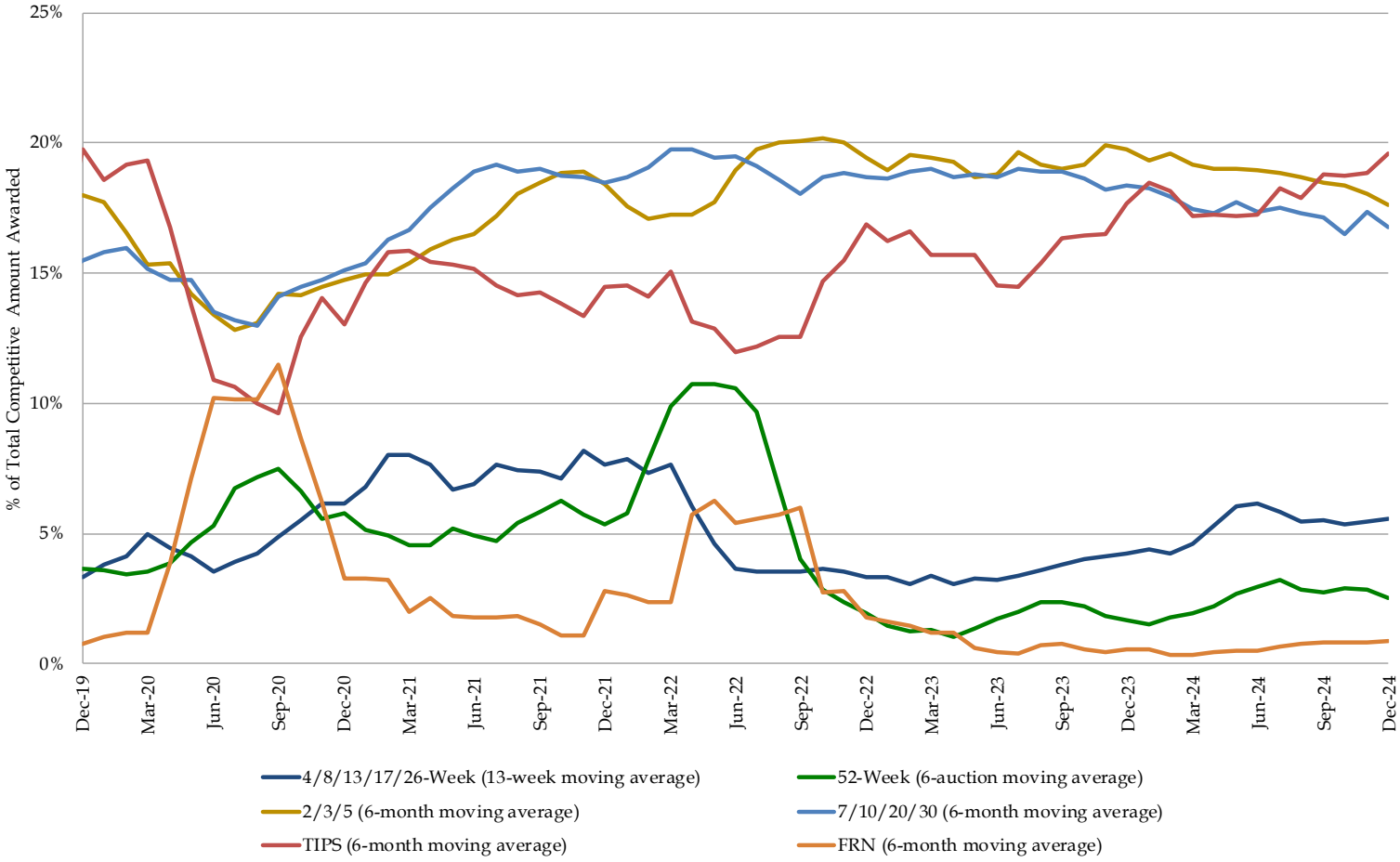
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Primary Dealer Awards at Auction



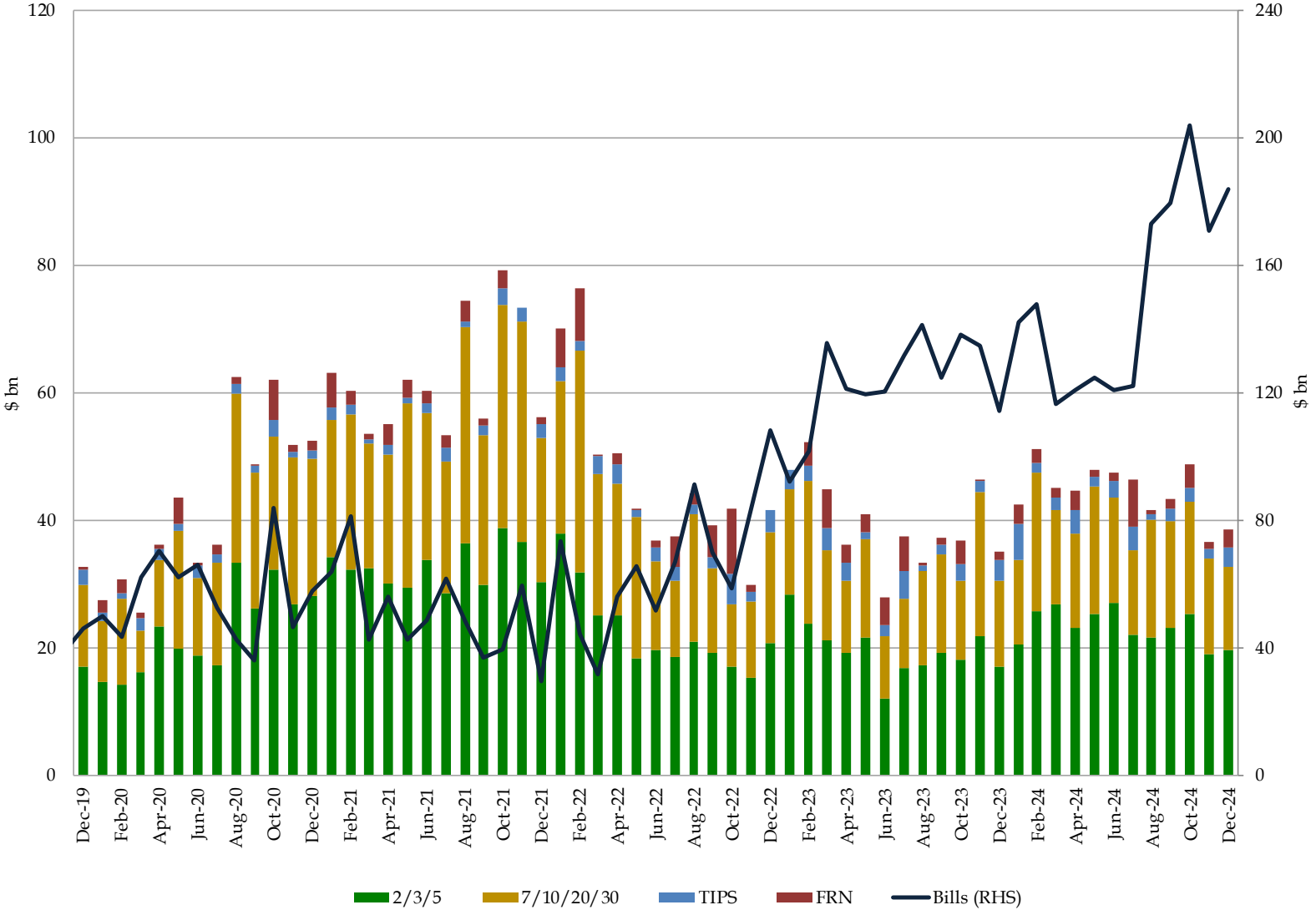
Competitive Amount Awarded excludes SOMA add-ons.

Direct Bidder Awards at Auction



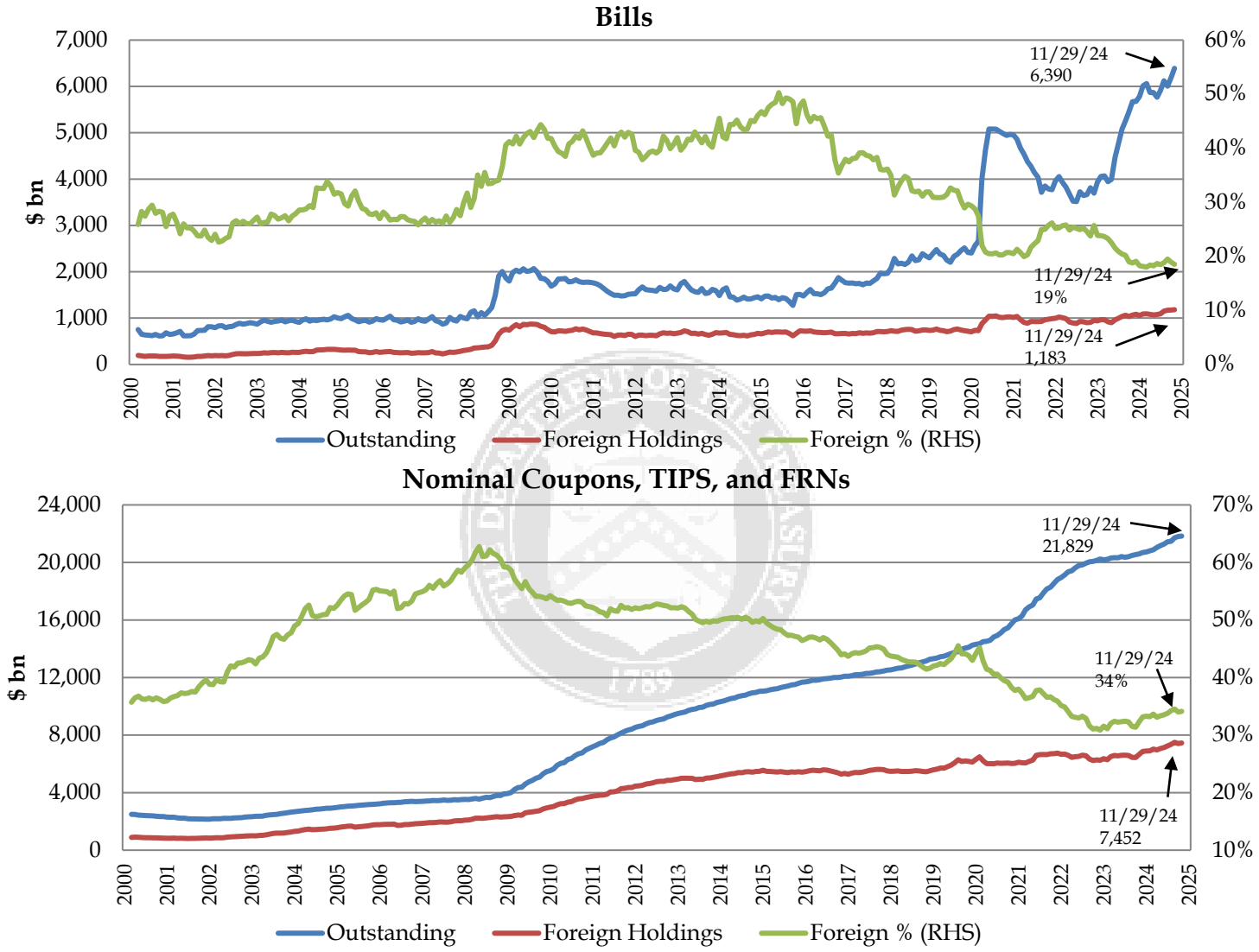
Competitive Amount Awarded excludes SOMA add-ons.

Total Foreign Awards of Treasuries at Auction, $ billions



Foreign includes both private sector and official institutions.

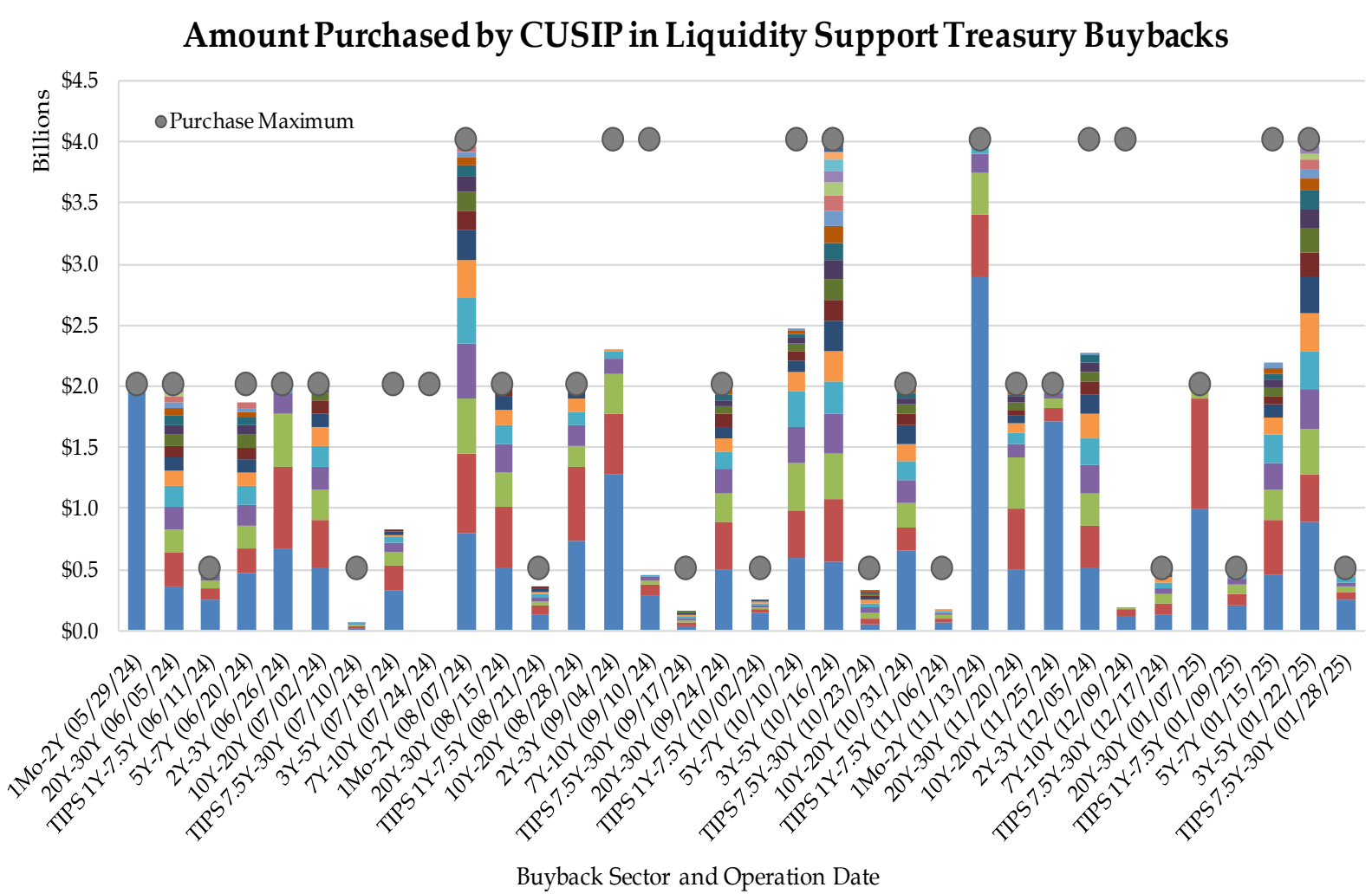
Total Foreign Holdings



Source: Treasury International Capital (TIC) System as of November 2024.
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.

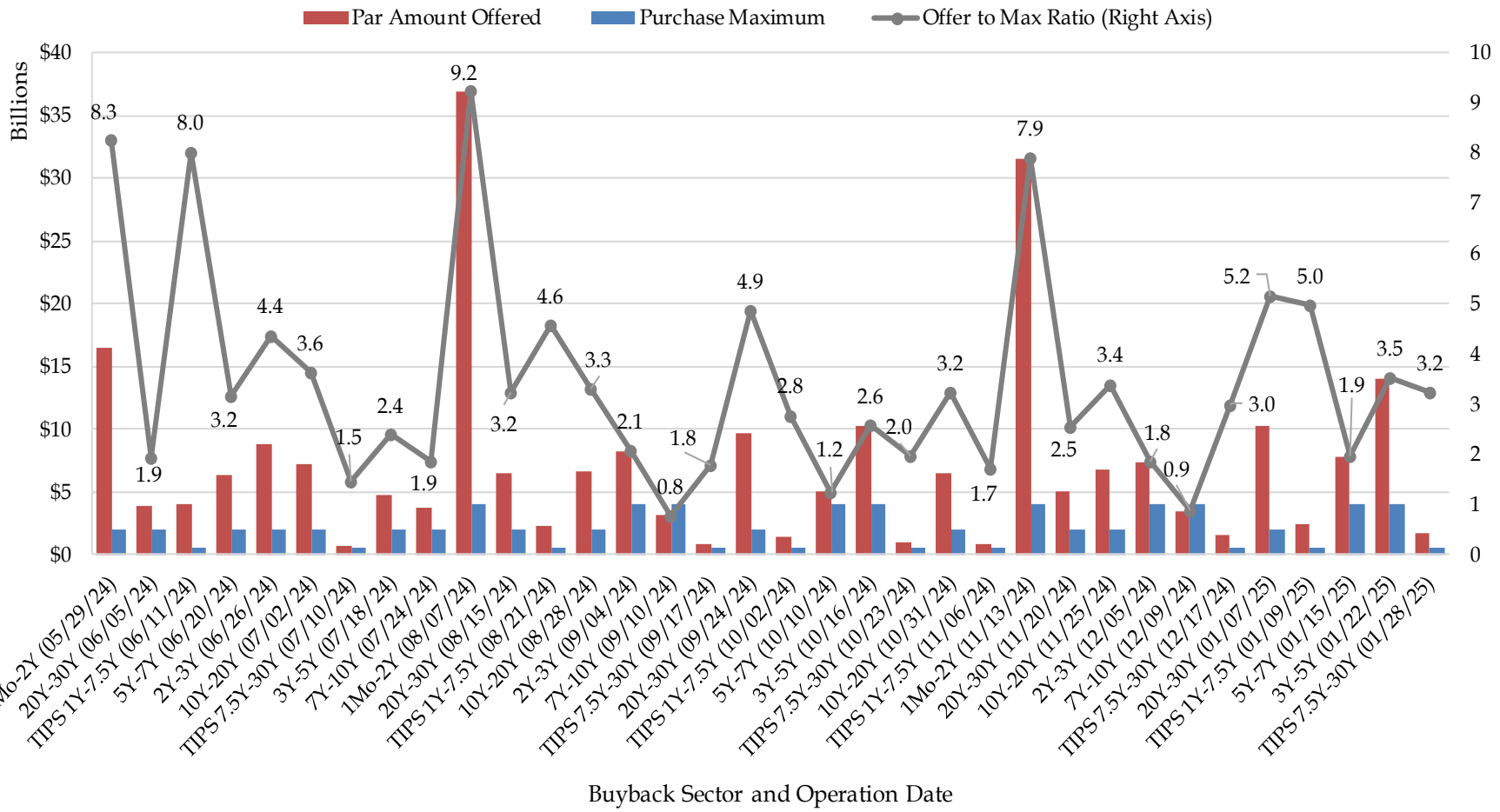
Section VII:
Review of Treasury Buyback Results

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



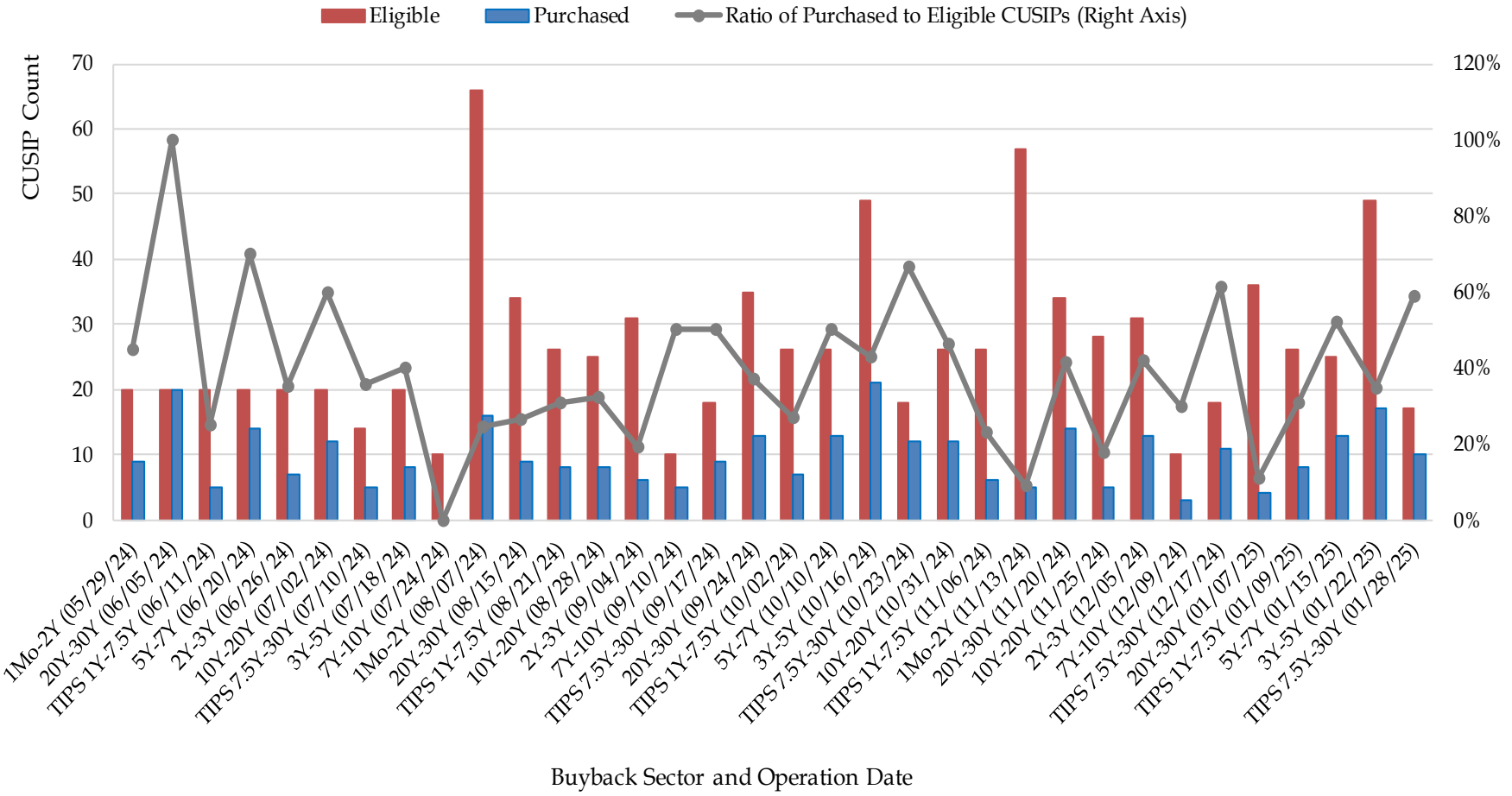
- Chart shows the total par amount purchased in each liquidity support buyback operation relative to the maximum purchase amount.
- Different colors within each bar correspond to the CUSIP-level purchase amounts.

Offer to Purchase Maximum Ratio for Liquidity Support Treasury Buybacks

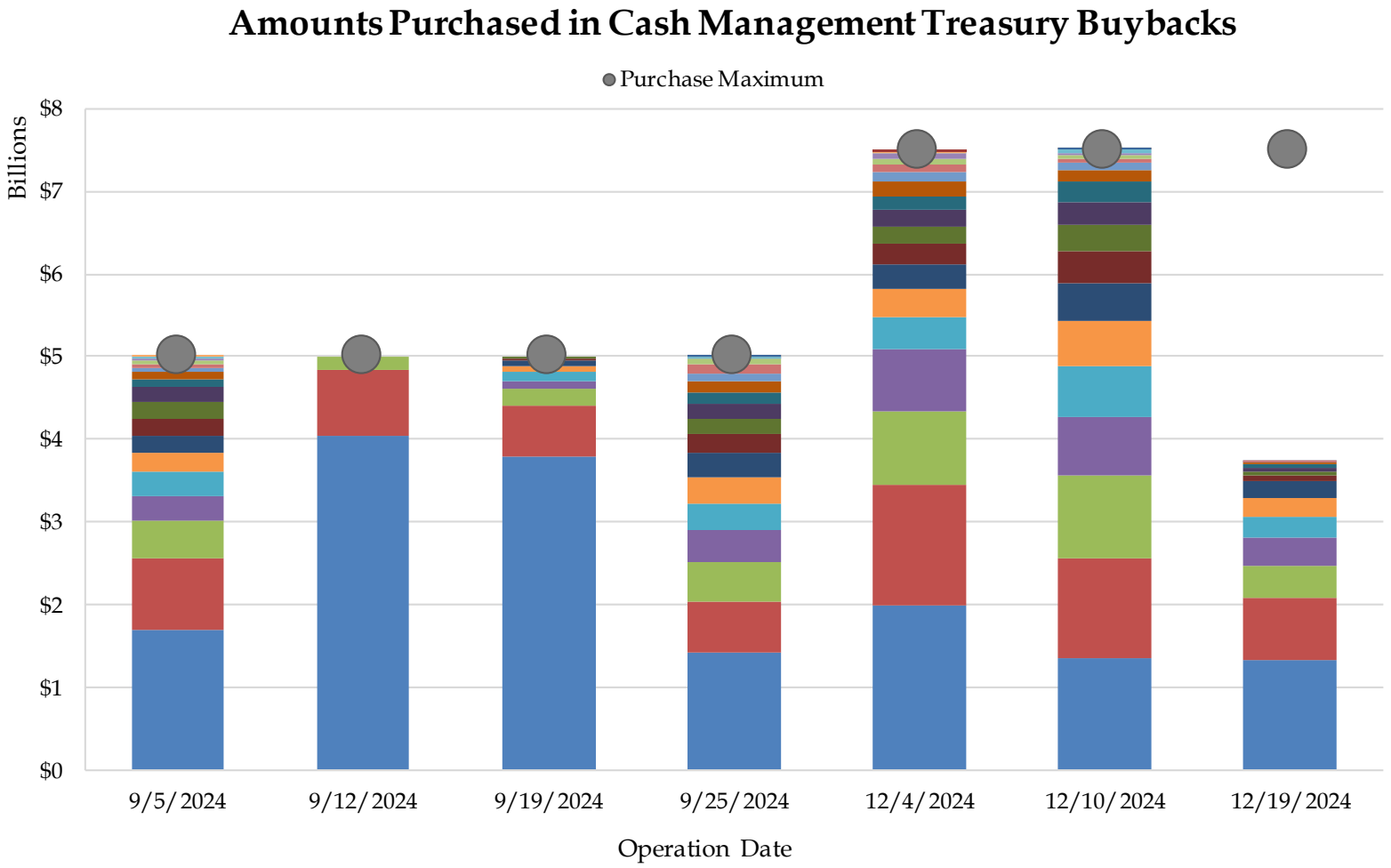


- Chart shows the "offer to max" ratio for each liquidity support buyback.
- The "offer to max" ratio is the ratio of the total par amount offered (red bar) in a buyback operation to Treasury's maximum purchase amount (blue bar).

Eligible and Purchased CUSIP Counts for Liquidity Support Buybacks

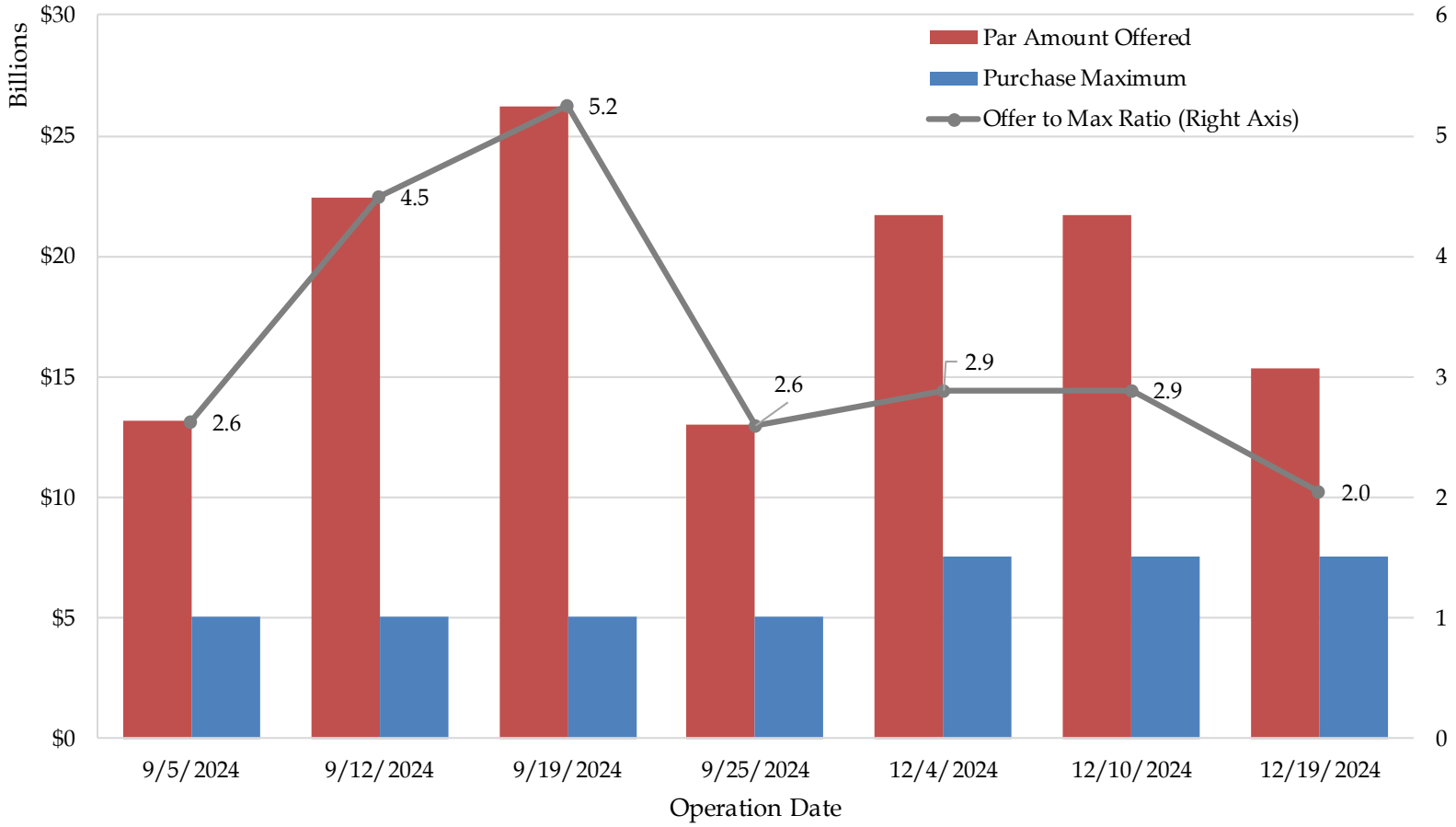


- Chart shows the count of eligible (red) and purchased (blue) CUSIPs for each liquidity support buyback operation as well as the ratio of purchased to eligible securities.
- Prior to August 2024, Treasury limited the buyback eligible population to at most 20 CUSIPs.



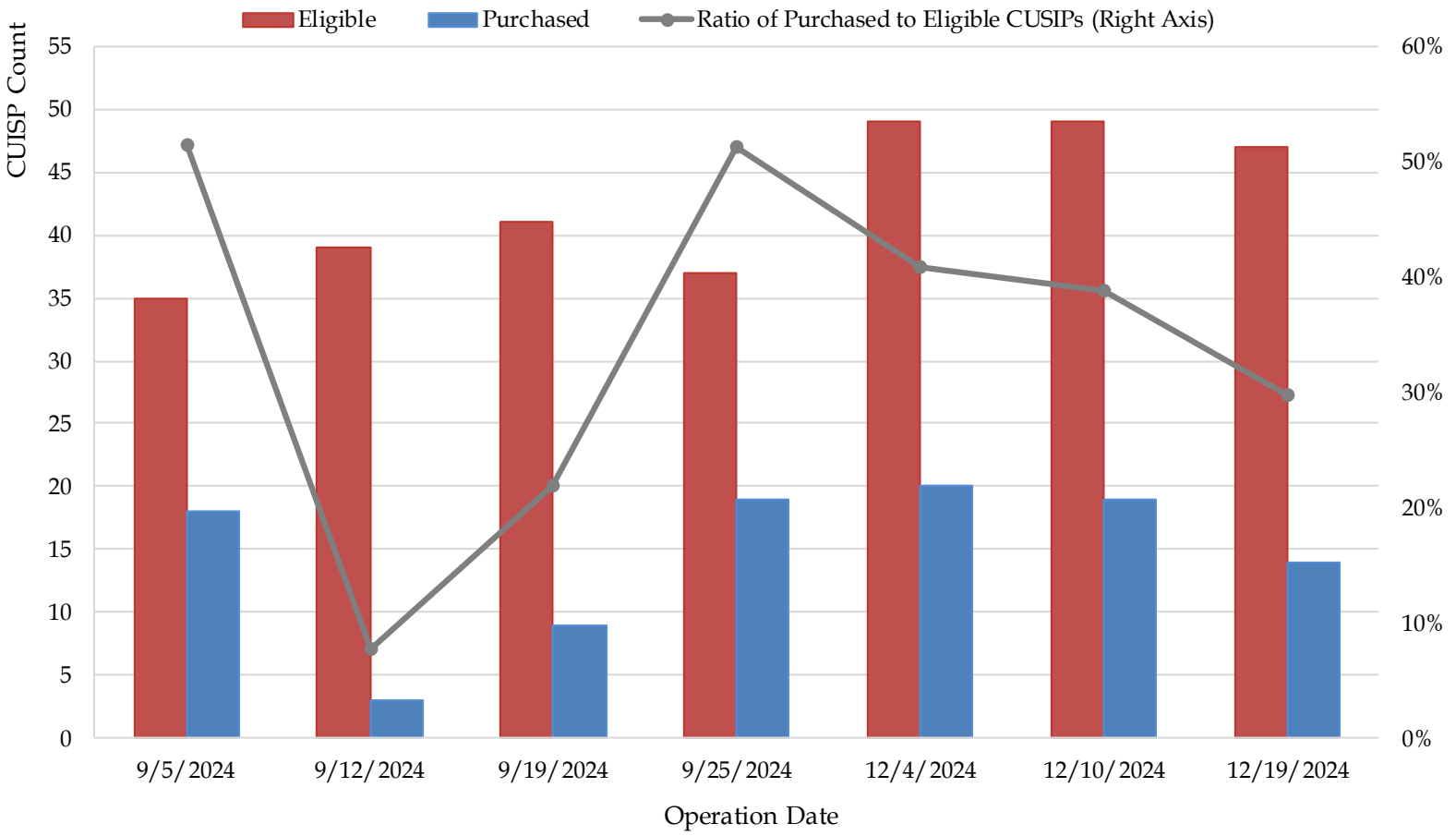
- Chart shows the total par amount purchased in each cash management buyback operation relative to the maximum purchase amount.
- Different colors within each bar correspond to the CUSIP-level purchase amounts.

Offer to Purchase Maximum Ratio for Cash Management Buybacks



- Chart shows the "offer to max" ratio for each cash management 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).

Eligible and Purchased CUSIP Counts for Cash Management Buybacks



- Chart shows the count of eligible (red) and purchased (blue) CUSIPs for each cash management buyback operation as well as the ratio of purchased to eligible securities.
- Certain securities are excluded from buybacks, as described in Treasury's buyback FAQs. In particular, for cash management buyback operations, Treasury excludes coupon securities that mature around quarterly tax payment dates or the April tax season.

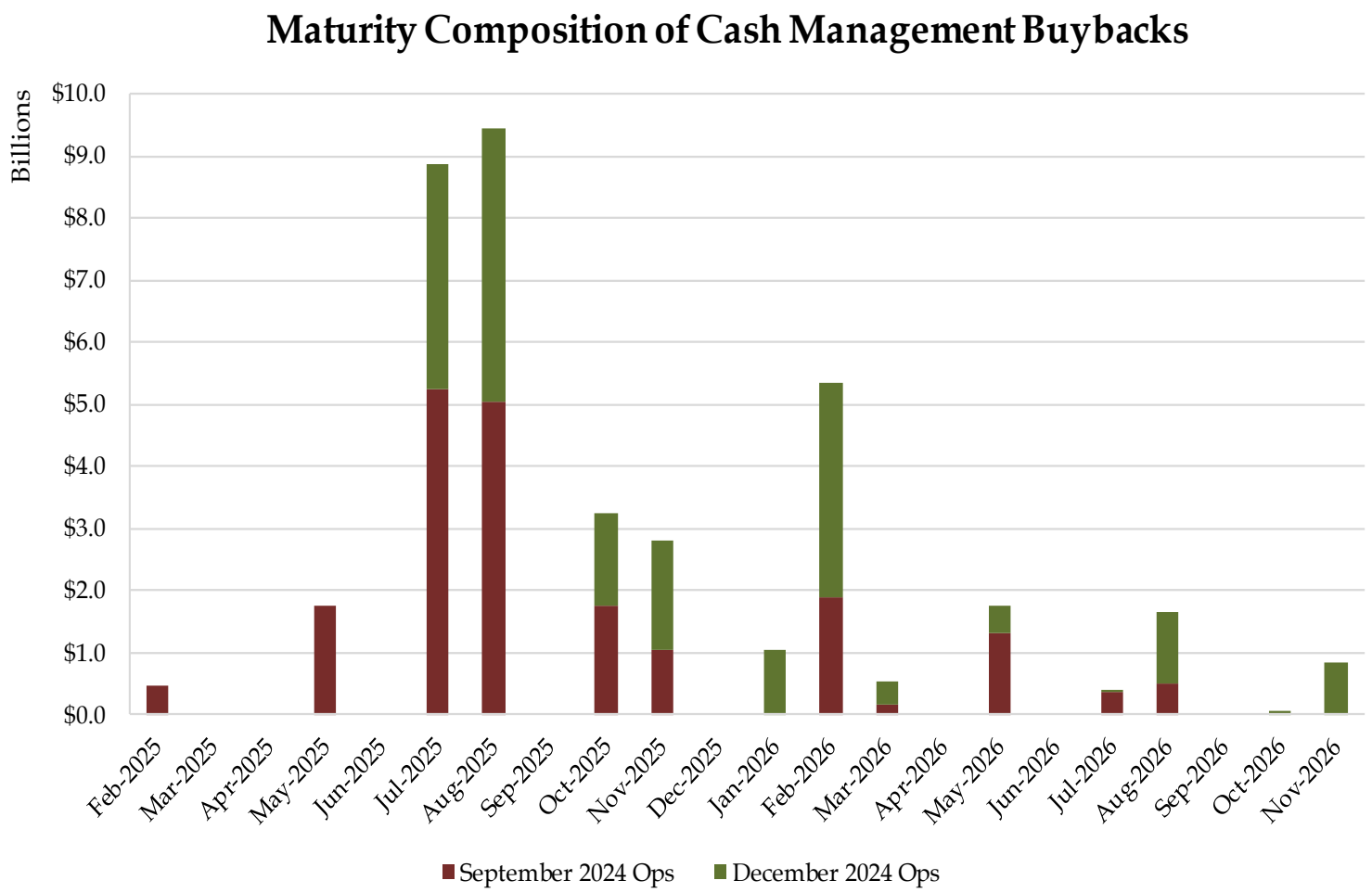
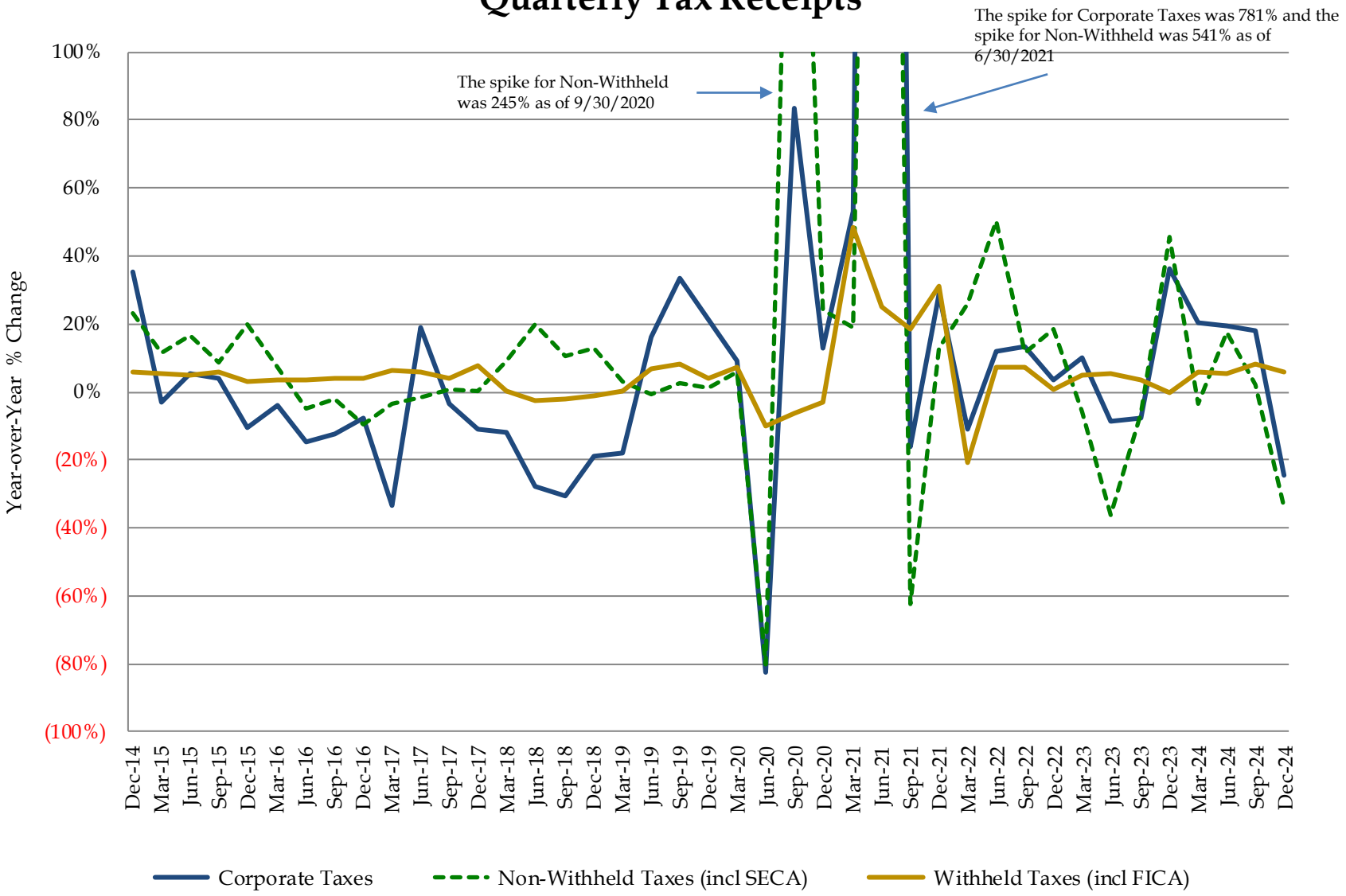


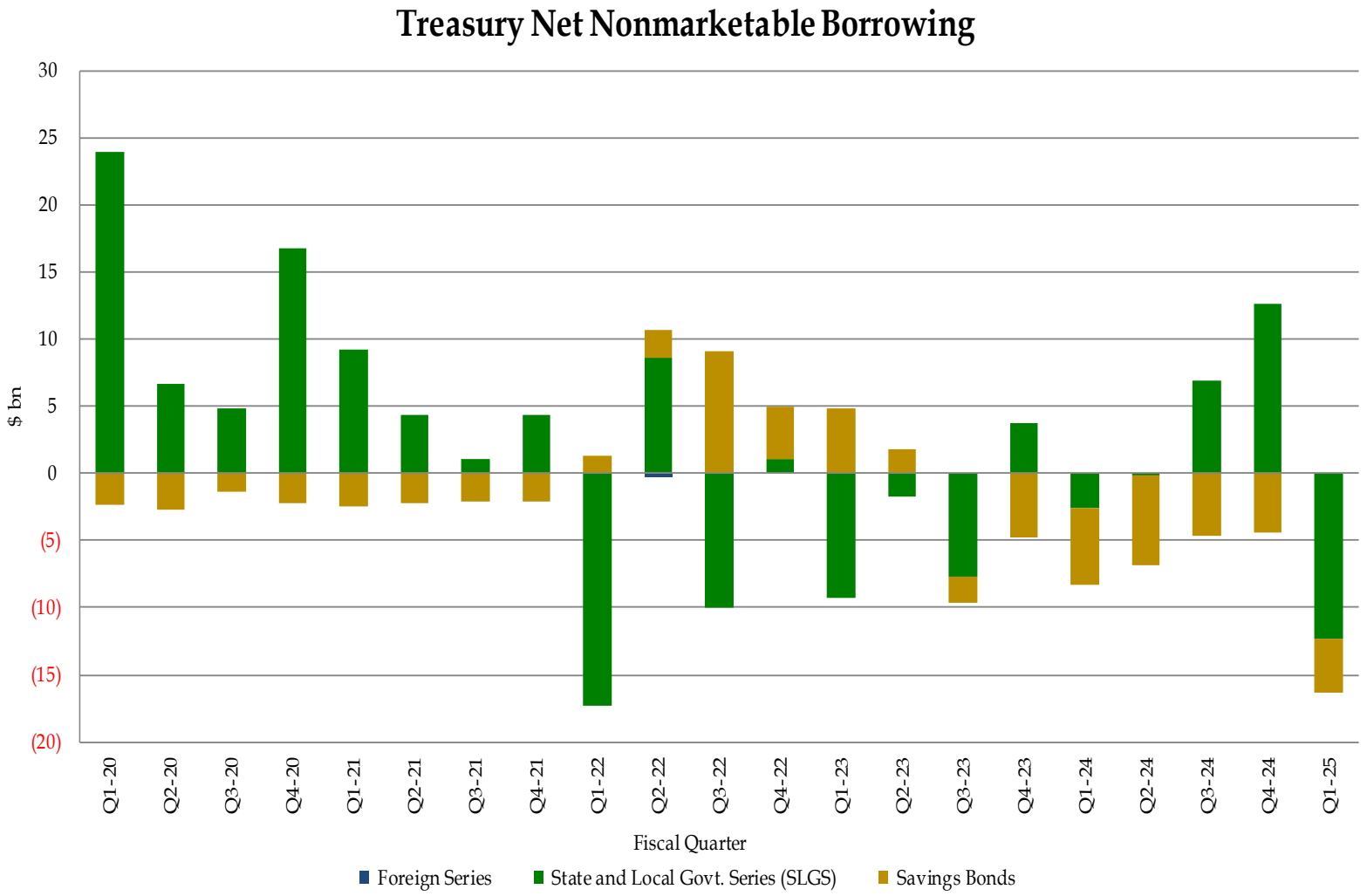
Chart above shows the total par amount purchased by maturity month for all the cash management buybacks that took place in September and December 2024.

VIII. Appendix

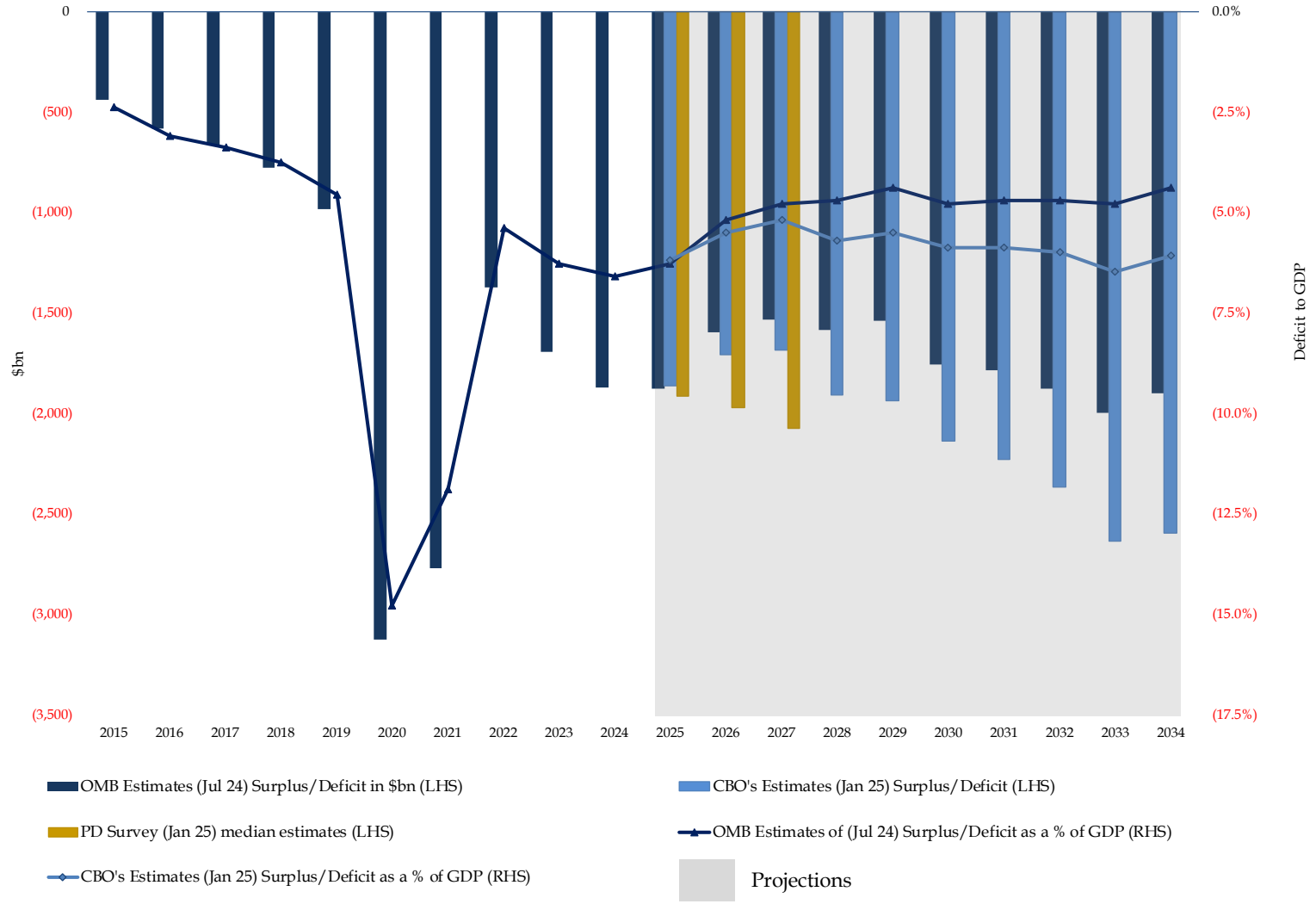
Contents

Quarterly Tax Receipts




Treasury Net Nonmarketable Borrowing
30
25
20
15
10
5
0
(5)
(10)
(15)
(20)
$ bn
Q1-20
Q2-20
Q3-20
Q4-20
Q1-21
Q2-21
Q3-21
Q4-21
Q1-22
Q2-22
Q3-22
Q4-22
Q1-23
Q2-23
Q3-23
Q4-23
Q1-24
Q2-24
Q3-24
Q4-24
Q1-25
Fiscal Quarter
Foreign Series
State and Local Govt. Series (SLGS)
Savings Bonds

Budget Surplus/Deficit*



* OMB projections are using estimates are from Table S-3 of "Mid-Session Review Budget of The U.S. Government, Fiscal Year 2025," July 2024. CBO projections are using estimates are from "The Budget and Economic Outlook: 2025 to 2035," January 2025.

Sources of Privately-Held Financing in FY25 Q1

October - December 2024	
Net Bill Issuance	182
Net Coupon Issuance	477
Subtotal: Net Marketable Borrowing	659
Buyback	39
Ending Cash Balance	722
Beginning Cash Balance	886
Subtotal: Change in Cash Balance	(164)
Net Implied Funding for FY25 Q1*	784

Security	October - December 2024 Bill Issuance			Fiscal Year-to-Date Bill Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
4-Week	1,265	1,270	(5)	1,265	1,270	(5)
8-Week	1,195	1,210	(15)	1,195	1,210	(15)
13-Week	1,051	985	66	1,051	985	66
17-Week	894	840	54	894	840	54
26-Week	936	910	26	936	910	26
52-Week	192	176	16	192	176	16
CMBs						
6-Week	985	945	40	985	945	40
CMBs	90	90	0	90	90	0
Bill Subtotal	6,608	6,426	182	6,608	6,426	182

Security	October - December 2024 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	86	68	18	86	68	18
2-Year	207	125	82	207	125	82
3-Year	174	166	8	174	166	8
5-Year	210	96	114	210	96	114
7-Year	132	70	62	132	70	62
10-Year	120	59	61	120	59	61
20-Year	42	0	42	42	0	42
30-Year	69	3	66	69	3	66
5-Year TIPS	46	39	7	46	39	7
10-Year TIPS	17	0	17	17	0	17
30-Year TIPS	0	0	0	0	0	0
Coupon Subtotal	1,103	626	477	1,103	626	477

Buyback		39			39	
Total	7,711	7,091	620	7,711	7,091	620

*By adjusting the change in cash balance, Treasury arrives at the net implied funding number.

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

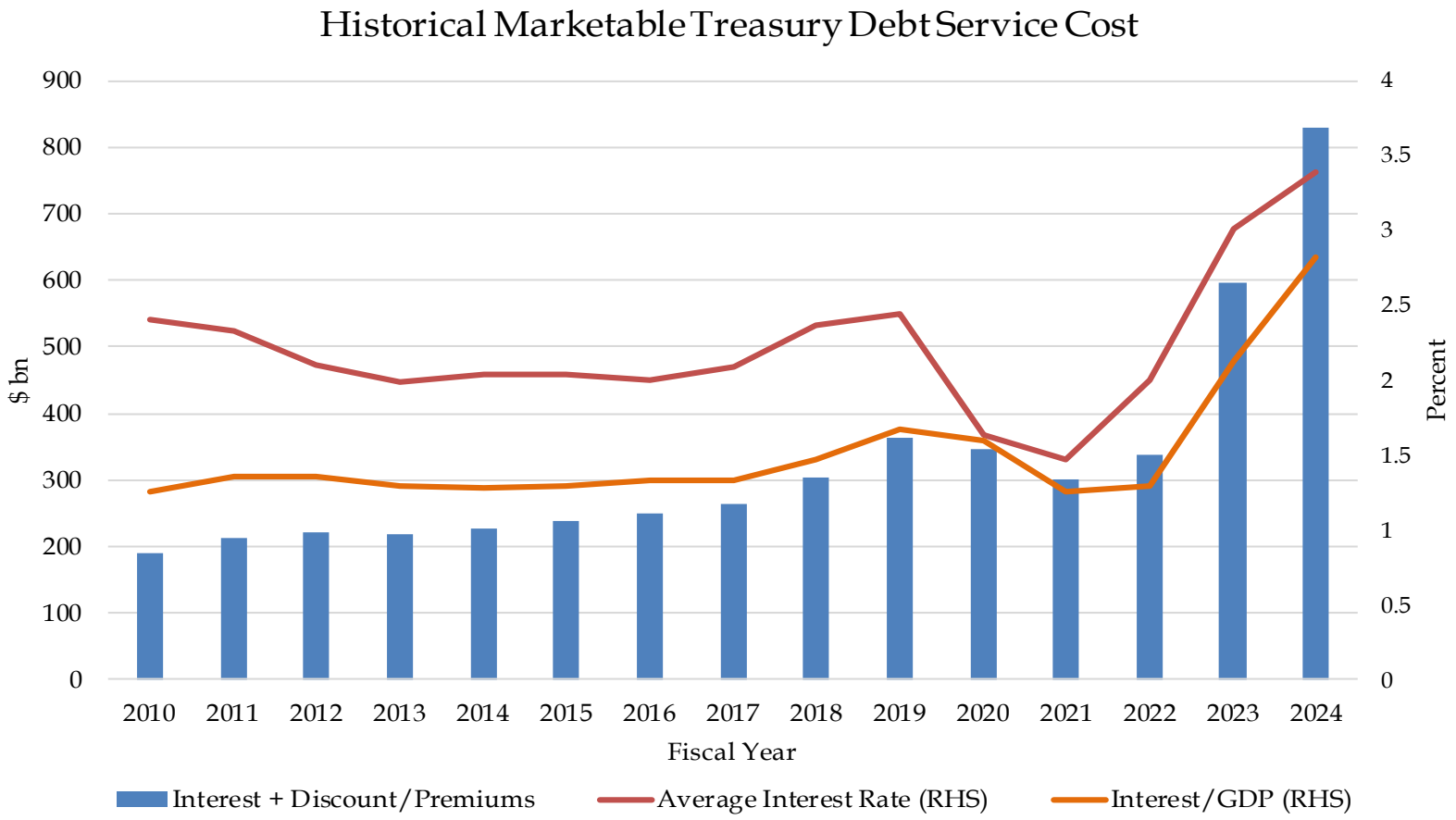
- Actual deficits are sourced from the Monthly Treasury Statement.
- Actual change in cash balance is sourced from the Daily Treasury Statement. Change in cash balance = cash balance of Sept 30, 2022 - cash balance of Sept 30, 2021
- Other Means of Financing include cash flows associated with federal 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 2025-2027 Deficits and Privately-Held Net Marketable Borrowing Estimates, in $ billions

	Primary Dealer			OMB	CBO
	25th	Median	75th		
FY 2025 Deficit	1,890	1,918	1,993	1,878	1,865
FY 2026 Deficit	1,899	1,975	2,103	1,601	1,713
FY 2027 Deficit	1,875	2,080	2,175	1,535	1,687
FY 2025 Change in Cash Balance	-186	-86	-36	0	0
FY 2026 Change in Cash Balance	0	0	29	0	0
FY 2027 Change in Cash Balance	0	0	0	0	0
FY 2025 Total Net Marketable Borrowing				1,901	1,904
FY 2026 Total Net Marketable Borrowing				1,695	1,780
FY 2027 Total Net Marketable Borrowing				1,648	1,753
FY 2025 SOMA Redemption	169	225	266		
FY 2026 SOMA Redemption	0	0	0		
FY 2027 SOMA Redemption	0	0	0		
FY 2025 Privately-Held Net Marketable Borrowing*	2,141	2,205	2,334	2,126	2,093
FY 2026 Privately-Held Net Marketable Borrowing*	1,988	2,078	2,190	1,695	1,780
FY 2027 Privately-Held Net Marketable Borrowing*	1,990	2,161	2,258	1,648	1,753
Estimates as of:		Jan-25		Jul-24	Jan-25

* All privately-held net marketable borrowing estimates are "normalized" using:
- 1) the median Primary Dealer's estimates for SOMA redemptions, and
- 2) assumed fiscal year 2025 cash balance of $850 billion, held constant in out years.

- OMB projections are using estimates are from Table S-3 of "Mid-Session Review Budget of The U.S. Government, Fiscal Year 2025," July 2024.
- CBO projections are using estimates are from "The Budget and Economic Outlook: 2025 to 2035," January 2025.

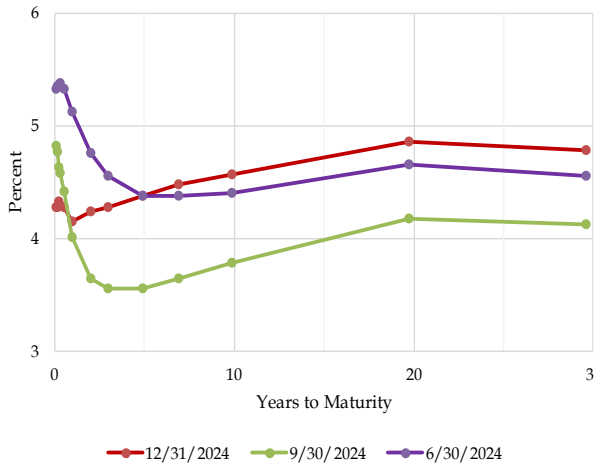


Source: https://fiscaldata.treasury.gov/datasets

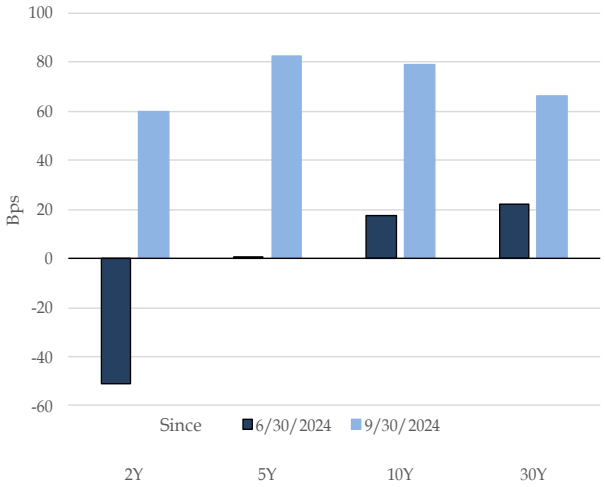
The average interest rates for total marketable debt do not include the Treasury Inflation-Indexed Securities and the Treasury Floating Rate Notes. However, they include securities from Federal Financing Bank. The average interest rates in the chart are as of corresponding fiscal year-end-dates.

Various Historical Treasury Interest Rate Metrics

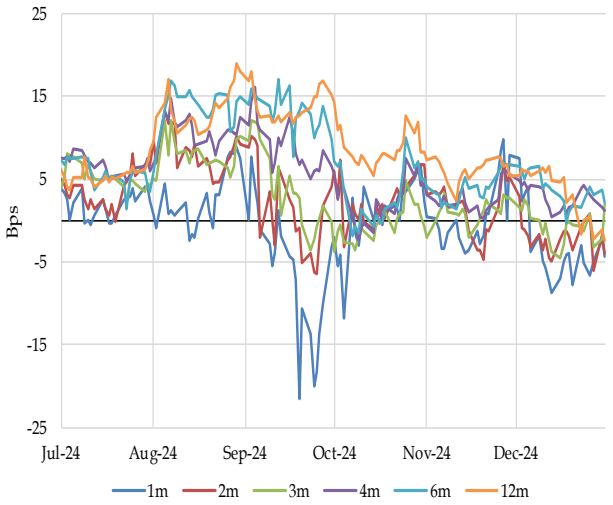
Treasury Nominal Yield Curve as of specified dates



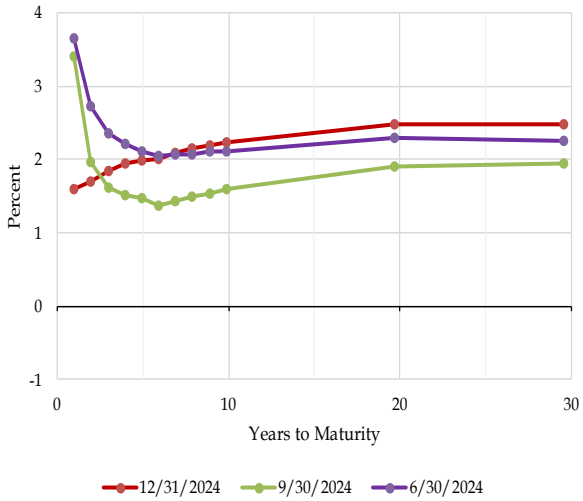
Nominal Yield Changes in Selected Tenors through the end of 12/31/24



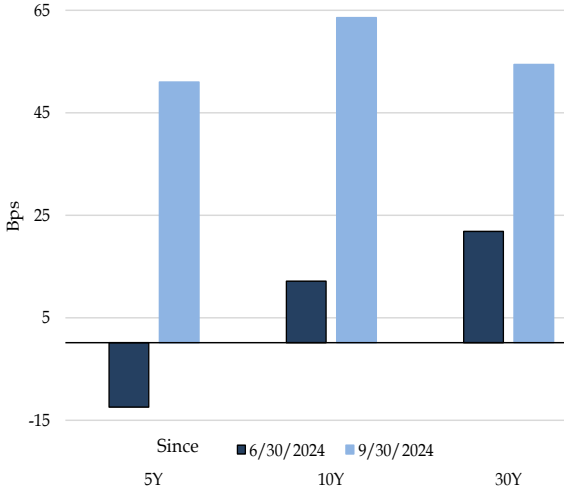
Bills-SOFR OIS spreads



Treasury Real Yield Curve as of specified dates



Real Yield Changes in Selected Tenors through the end of 12/31/24



Breakevens

Source: Bloomberg

Projected Privately-Held Net Marketable Borrowing
Assuming Private Coupon Issuance & Total Bills Outstanding Remain Constant as of 1/31/2025*

Fiscal Year	Bills	2/3/5	7/10/20/30	TIPS	FRN	Historical/Projected Net Borrowing Capacity
2020	2,652	538	724	46	55	4,015
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	737	902	87	52	2,567
2025	375	831	962	37	68	2,274
2026	0	451	958	56	10	1,475
2027	0	328	840	38	0	1,206
2028	0	294	517	16	0	828
2029	0	84	643	16	0	743
2030	0	0	771	25	0	795
2031	0	0	507	14	0	521
2032	0	0	508	(11)	0	497
2033	0	0	519	(4)	0	516
2034	0	0	437	(15)	0	422
2035	0	0	444	(26)	0	418

*Projections reflect only SOMA rollovers at auction of principal payments of Treasury securities. No adjustments are made for open-market outright purchases and subsequent rollovers.

Bills										
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)*
4-Week	10/8/2024	4.755	2.50	88.6	42.0	3.9	54.1	6.4	0.3	0.9
4-Week	10/15/2024	4.750	2.74	88.6	30.4	4.2	65.4	6.4	0.3	0.9
4-Week	10/22/2024	4.700	2.90	88.3	25.0	3.5	71.6	6.7	0.3	0.9
4-Week	10/29/2024	4.650	2.83	88.5	26.9	3.7	69.4	6.5	0.3	0.9
4-Week	11/5/2024	4.580	2.82	88.4	27.4	4.0	68.6	6.6	0.3	0.9
4-Week	11/12/2024	4.515	2.63	88.7	30.7	5.5	63.8	6.3	0.3	0.9
4-Week	11/19/2024	4.510	2.77	88.4	29.8	3.4	66.8	6.6	0.3	0.9
4-Week	11/26/2024	4.530	2.68	88.5	35.2	3.0	61.8	6.5	0.3	0.9
4-Week	12/3/2024	4.550	2.81	88.9	21.9	2.5	75.6	6.1	0.3	0.9
4-Week	12/10/2024	4.400	2.74	78.1	39.4	4.3	56.3	6.9	0.3	0.8
4-Week	12/17/2024	4.240	3.14	73.7	28.4	3.1	68.5	6.3	0.3	0.8
4-Week	12/24/2024	4.230	2.93	73.9	28.1	3.7	68.2	6.1	0.3	0.8
4-Week	12/31/2024	4.260	2.97	69.2	27.4	3.8	68.9	5.8	0.3	0.7
8-Week	10/8/2024	4.655	2.72	88.4	32.2	4.2	63.6	1.6	0.3	1.7
8-Week	10/15/2024	4.640	2.92	88.5	32.5	3.8	63.6	1.5	0.3	1.7
8-Week	10/22/2024	4.630	2.68	88.3	36.5	3.6	59.9	1.7	0.3	1.7
8-Week	10/29/2024	4.590	2.83	88.5	30.2	3.3	66.6	1.5	0.3	1.7
8-Week	11/5/2024	4.555	2.68	88.6	34.7	3.3	62.0	1.4	0.3	1.7
8-Week	11/12/2024	4.490	2.59	88.3	40.4	5.9	53.8	1.7	0.3	1.7
8-Week	11/19/2024	4.460	2.77	88.3	26.4	4.3	69.3	1.7	0.3	1.7
8-Week	11/26/2024	4.480	2.52	88.4	45.7	4.1	50.3	1.6	0.3	1.7
8-Week	12/3/2024	4.500	2.61	88.8	36.4	3.9	59.7	1.2	0.3	1.7
8-Week	12/10/2024	4.350	3.50	78.3	20.4	4.5	75.1	1.7	0.3	1.5
8-Week	12/17/2024	4.260	2.81	73.6	39.9	4.5	55.6	1.4	0.3	1.4
8-Week	12/24/2024	4.230	2.98	73.6	25.6	4.0	70.4	1.4	0.2	1.4
8-Week	12/31/2024	4.265	2.90	68.7	25.6	3.6	70.9	1.3	0.2	1.3

*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)*
13-Week	10/10/2024	4.550	2.62	78.8	39.1	5.2	55.6	2.2	4.4	2.6
13-Week	10/17/2024	4.515	2.96	78.6	29.0	5.3	65.8	2.4	4.9	2.6
13-Week	10/24/2024	4.510	3.07	78.6	28.1	5.0	66.9	2.4	4.6	2.6
13-Week	10/31/2024	4.490	2.90	78.7	29.6	6.5	63.9	2.3	8.2	2.7
13-Week	11/7/2024	4.440	2.44	78.8	52.5	8.7	38.9	2.2	6.4	2.7
13-Week	11/14/2024	4.420	2.87	78.5	29.0	9.1	62.0	2.5	7.4	2.7
13-Week	11/21/2024	4.420	2.68	79.0	41.9	6.1	51.9	2.0	5.9	2.6
13-Week	11/29/2024	4.415	3.10	78.9	31.1	6.6	62.3	2.1	5.6	2.6
13-Week	12/5/2024	4.400	2.89	78.9	33.4	7.0	59.6	2.1	0.9	2.5
13-Week	12/12/2024	4.300	2.89	78.6	28.8	10.8	60.4	2.4	1.3	2.5
13-Week	12/19/2024	4.250	2.62	78.9	39.6	7.6	52.8	2.1	0.3	2.5
13-Week	12/26/2024	4.240	2.86	78.8	27.0	1.8	71.2	2.2	1.6	2.5
13-Week	1/2/2025	4.230	2.38	81.9	53.2	5.1	41.7	2.1	5.0	2.7
17-Week	10/8/2024	4.410	3.37	63.5	35.0	4.3	60.7	0.5	0.2	2.5
17-Week	10/15/2024	4.430	3.31	63.5	33.6	6.9	59.5	0.5	0.2	2.5
17-Week	10/22/2024	4.420	3.05	63.5	36.0	5.0	59.1	0.5	0.2	2.5
17-Week	10/29/2024	4.445	2.97	63.4	26.9	3.9	69.2	0.6	0.2	2.5
17-Week	11/5/2024	4.430	2.99	63.4	27.0	5.2	67.7	0.6	0.2	2.5
17-Week	11/12/2024	4.410	2.79	63.5	32.6	5.7	61.8	0.5	0.2	2.6
17-Week	11/19/2024	4.370	3.15	63.4	32.8	8.0	59.2	0.6	0.2	2.6
17-Week	11/26/2024	4.380	3.14	63.5	28.2	3.9	67.9	0.5	0.2	2.5
17-Week	12/3/2024	4.390	2.80	63.5	37.5	4.8	57.7	0.5	0.2	2.5
17-Week	12/10/2024	4.315	3.10	63.4	34.4	10.0	55.6	0.6	0.2	2.5
17-Week	12/17/2024	4.240	2.83	63.3	38.0	9.3	52.7	0.7	0.2	2.6
17-Week	12/24/2024	4.220	2.97	63.4	31.9	4.7	63.4	0.6	0.2	2.6
17-Week	12/31/2024	4.230	2.91	63.4	25.0	3.2	71.8	0.6	0.2	2.6

*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)*
26-Week	10/10/2024	4.305	3.38	70.2	28.7	10.1	61.2	1.8	3.9	4.6
26-Week	10/17/2024	4.270	3.05	70.1	27.1	9.1	63.7	1.9	4.3	4.6
26-Week	10/24/2024	4.310	2.92	70.3	26.9	9.1	64.0	1.7	4.0	4.6
26-Week	10/31/2024	4.325	3.25	70.5	21.0	7.9	71.2	1.5	7.3	4.8
26-Week	11/7/2024	4.260	3.00	70.1	20.3	8.2	71.5	1.9	5.7	4.7
26-Week	11/14/2024	4.310	2.73	70.0	36.9	9.3	53.9	2.0	6.5	4.8
26-Week	11/21/2024	4.310	2.87	70.4	22.4	4.6	73.0	1.6	5.3	4.7
26-Week	11/29/2024	4.340	2.69	70.4	38.5	4.4	57.1	1.6	5.0	4.6
26-Week	12/5/2024	4.305	3.02	70.3	29.3	6.8	63.9	1.7	0.8	4.4
26-Week	12/12/2024	4.200	2.90	69.9	29.7	7.7	62.6	2.1	1.2	4.4
26-Week	12/19/2024	4.160	3.29	70.0	20.7	11.3	68.0	2.0	0.3	4.4
26-Week	12/26/2024	4.170	2.87	70.4	20.9	2.6	76.5	1.6	1.4	4.5
26-Week	1/2/2025	4.135	3.03	70.3	22.5	7.8	69.8	1.7	4.3	4.7
52-Week	10/3/2024	3.780	3.45	47.0	39.1	2.9	57.9	1.0	3.0	6.1
52-Week	10/31/2024	4.100	3.05	46.9	38.9	4.2	57.0	1.1	4.9	6.4
52-Week	11/29/2024	4.190	3.26	46.8	32.9	2.8	64.3	1.2	3.3	6.2
52-Week	12/27/2024	4.070	3.37	46.9	22.7	1.2	76.1	1.1	0.9	6.0
6-Week CMB	10/3/2024	4.750	2.64	69.7	35.0	7.8	57.1	0.3	0.0	1.0
6-Week CMB	10/10/2024	4.720	2.96	79.6	35.0	5.1	59.9	0.4	0.0	1.1
6-Week CMB	10/17/2024	4.685	2.62	79.7	40.2	4.7	55.0	0.3	0.0	1.1
6-Week CMB	10/24/2024	4.650	2.69	79.7	36.0	6.2	57.9	0.3	0.0	1.1
6-Week CMB	10/31/2024	4.630	2.62	79.7	39.2	4.1	56.7	0.3	0.0	1.1
6-Week CMB	11/7/2024	4.550	2.78	79.7	45.4	5.1	49.5	0.3	0.0	1.1
6-Week CMB	11/14/2024	4.555	2.51	79.7	43.8	6.8	49.4	0.3	0.0	1.1
6-Week CMB	11/21/2024	4.480	2.55	79.6	44.8	6.7	48.4	0.4	0.0	1.1
6-Week CMB	11/29/2024	4.530	2.61	79.8	32.9	6.6	60.5	0.2	0.0	1.1
6-Week CMB	12/5/2024	4.400	3.00	74.5	35.1	4.9	60.0	0.5	0.0	1.1
6-Week CMB	12/12/2024	4.320	2.67	69.7	40.0	13.1	46.8	0.3	0.0	1.0
6-Week CMB	12/19/2024	4.270	2.59	64.8	55.2	6.2	38.5	0.2	0.0	0.9
6-Week CMB	12/26/2024	4.280	2.68	64.9	37.8	4.0	58.2	0.1	0.0	0.9
6-Week CMB	1/2/2025	4.270	2.93	74.8	23.9	3.7	72.4	0.2	0.0	1.1
CMB	11/21/2024	4.515	3.87	49.8	30.0	6.3	63.7	0.2	0.0	0.7
CMB	11/26/2024	4.550	3.65	39.8	26.1	6.0	67.9	0.2	0.0	0.4

*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	10/31/2024	4.130	2.50	68.5	17.9	23.8	58.2	0.5	1.2	16.6
2-Year	12/2/2024	4.274	2.77	68.3	9.2	19.2	71.6	0.7	4.7	17.3
2-Year	12/31/2024	4.335	2.73	68.4	11.3	6.6	82.1	0.6	0.7	16.6
3-Year	10/15/2024	3.878	2.45	57.8	19.2	24.0	56.9	0.2	0.8	20.4
3-Year	11/15/2024	4.152	2.60	57.8	19.8	9.6	70.6	0.2	14.1	25.1
3-Year	12/16/2024	4.117	2.58	57.6	15.1	20.7	64.2	0.4	0.4	20.3
5-Year	10/31/2024	4.138	2.39	69.8	14.2	9.5	76.4	0.2	1.2	39.6
5-Year	12/2/2024	4.197	2.43	69.8	11.3	24.6	64.1	0.2	4.8	41.5
5-Year	12/31/2024	4.478	2.40	69.7	12.5	20.3	67.3	0.3	0.7	39.5
7-Year	10/31/2024	4.215	2.74	43.9	7.5	20.6	72.0	0.1	0.7	33.5
7-Year	12/2/2024	4.183	2.71	43.9	10.0	25.9	64.1	0.1	3.0	35.1
7-Year	12/31/2024	4.532	2.76	43.9	9.3	2.9	87.9	0.1	0.4	33.2
10-Year	10/15/2024	4.066	2.48	38.9	13.9	8.4	77.6	0.1	0.5	39.5
10-Year	11/15/2024	4.347	2.58	41.8	14.7	23.6	61.7	0.2	10.2	52.4
10-Year	12/16/2024	4.235	2.70	38.9	10.5	19.5	70.0	0.1	0.3	39.2
20-Year	10/31/2024	4.590	2.59	12.9	14.5	17.6	67.9	0.1	0.2	21.5
20-Year	12/2/2024	4.680	2.34	15.9	22.6	7.9	69.5	0.1	1.1	27.5
20-Year	12/31/2024	4.686	2.50	12.9	17.9	20.1	62.0	0.1	0.1	20.8
30-Year	10/15/2024	4.389	2.50	22.0	12.2	7.4	80.5	0.0	0.3	45.8
30-Year	11/15/2024	4.608	2.64	24.9	10.2	27.1	62.7	0.1	6.1	62.9
30-Year	12/16/2024	4.535	2.39	22.0	14.4	19.1	66.5	0.0	0.2	44.7
2-Year FRN	10/31/2024	0.205	2.95	30.0	23.5	0.8	75.7	0.0	0.5	0.1
2-Year FRN	11/29/2024	0.170	2.86	28.0	28.5	0.9	70.6	0.0	0.0	0.0
2-Year FRN	12/27/2024	0.140	2.98	28.0	29.5	0.9	69.6	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)**
5-Year TIPS	10/31/2024	1.670	2.40	23.9	7.9	17.3	74.8	0.1	0.4	14.2
5-Year TIPS	12/31/2024	2.121	2.10	21.9	25.4	23.1	51.4	0.1	0.2	12.6
10-Year TIPS	11/29/2024	2.071	2.35	16.9	14.1	16.7	69.2	0.1	0.0	18.3

*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.

Treasury Buyback Program Effectiveness Assessment

Treasury Borrowing Advisory Committee
February 4, 2025

Charge Text:

Treasury has been conducting regular buybacks since May 2024 with liquidity support and cash management objectives. Please assess the effectiveness of the buyback program to date in achieving its objectives. Are there any changes to the program that Treasury should consider? Please elaborate.

Contents

Executive Summary

Treasury Objectives

- Treasury established the current buyback program with the following objectives:
  - Liquidity Support buybacks aim to bolster market liquidity by establishing an opportunity for market participants to sell off-the-run Treasury securities.
  - Cash Management buybacks aim to reduce volatility in Treasury's cash balance and Treasury bill issuance, minimize bill supply disruptions, and/or reduce borrowing costs over time.
  - Offers are evaluated based on their proximity to prevailing market prices at the close of the operation, as well as measures of relative value.
  - Buybacks are regular and predictable and are not currently intended to mitigate episodes of acute market stress.

source: https://treasurydirect.gov/help-center/faqs/buyback-faqs/

Executive Summary

Analysis Results

- A study of buyback result statistics over the period from May 29, 2024 to Jan 22, 2025 provides some insight into the effectiveness of the program so far:
  - Nominal coupon operations spanning Liquidity Support and Cash Management buybacks were well-subscribed.
    - In 68% of operations, the maximum amount made available was purchased.
  - TIPS Liquidity Support buybacks experienced more variable results.
    - In 33% of operations, the maximum amount made available was purchased.
  - In total, $92.052bn of Par Amount was accepted out of a potential $115bn over the study period.
    - The top 10% of issues accepted comprised $48.422bn of Par Amount bought back, suggesting significant market axes to exhaust specific inventory via cumulative buybacks.
  - Treasury accepted a higher proportion of maximum operation size when primary dealers offered higher multiples of maximum operation size
  - Bonds which were bought back generally screened as cheap in a relative value framework.
  - Buyback operations are significant in size in each sector on the day that they occur.
  - Buyback operations are more modest in size relative to overall market volumes and dealer balances.
- Studies of some Treasury market dynamics add color to the market backdrop for buybacks during the study period
  - Analysis of model Z-spread measures suggests the market's appetite for off-the-run Treasury relative value was stable over the study period.
  - Analysis of in-month seasonality suggests that primary issuance auctions and month end are peaks for of off-the-run volumes.
- The current buyback program is broadly achieving its stated objectives and there is little evidence of a pressing need to change the program from its current setting.
- We offer some potential study items which could lead to even greater program effectiveness in the future

Buyback Operation Specifications

- Schedule announced at the Quarterly Refunding.
  - Cash management buybacks will generally take place seasonally, predominantly during the weeks immediately surrounding major tax payment dates.
  - Liquidity support buybacks will generally be conducted once per week, taking into account holidays and market events.
- Treasury anticipates purchasing within each maturity bucket at least one time per quarter.
- Excluded Securities:
  - On-the-runs and recently issued securities.
  - Repo specials.
  - Securities in exceptional demand compared with similar issues.
  - Securities that may be considered the cheapest-to-deliver for an actively traded futures contract.
  - Coupon securities that are trading at a significantly lower yield than Treasury bills with similar maturities.
  - TIPS maturing within one year of the buyback settlement date.
- Treasury does not intend to buy back bills, floating rate notes, or STRIPS.
- Purchase limits maintain the free float above $10 billion par amount for nominal coupon securities and $5 billion par amount for TIPS. SOMA holdings will not exceed 70% of outstanding par amount after the buyback operation is settled.
- Treasury may carry forward capacity from one cash management buyback operation to subsequent operations; but for liquidity support operations, does not intend to carry forward unused capacity.

source: https://treasurydirect.gov/help-center/faqs/buyback-faqs/

Summary Results

Liquidity Support and Cash Management

- Nominal Coupons
  - On average, 37% of issues made available for buyback were filled in some amount.
  - In 68% of operations, the maximum amount made available was purchased.
  - Liquidity Support and Cash Management buybacks in the [1M,2] year sector were very well subscribed and filled.
  - Liquidity Support buybacks in the (10,20] year and (20,30] year sectors were also well subscribed and filled.
  - Buybacks in the belly of the curve were more sporadically filled and buybacks in the (7,10] year sector were notably small.
- TIPS
  - On average, 39% of issues made available for buyback were filled in some amount.
  - In 33% of operations, the maximum amount made available was purchased.
  - There were no especially marked differences in dynamics between the [1,7.5] and (7.5,30] year sectors.

Security Type	Operation	Date	Issues	Accepted	Maximum ($mm)	Accepted ($mm)	% Count Accepted	% Amount Accepted
Nominal Coupons	[1M,2Y]	5/29/2024	20	9	2,000	2,000	45%	100%
		8/7/2024	66	16	4,000	4,000	24%	100%
		11/13/2024	57	5	4,000	4,000	9%	100%
	(2Y,3Y]	6/26/2024	20	7	2,000	2,000	35%	100%
		9/4/2024	31	6	4,000	2,295	19%	57%
		12/5/2024	31	13	4,000	2,267	42%	57%
	(3Y,5Y]	7/18/2024	20	8	2,000	809	40%	40%
		10/16/2024	49	21	4,000	4,000	43%	100%
		1/22/2025	49	17	4,000	4,000	35%	100%
	(5Y,7Y]	6/20/2024	20	14	2,000	1,864	70%	93%
		10/10/2024	26	13	4,000	2,469	50%	62%
		1/15/2025	25	13	4,000	2,190	52%	55%
	(7Y,10Y]	7/24/2024	10	0	2,000	0	0%	0%
		9/10/2024	10	5	4,000	449	50%	11%
		12/9/2024	10	3	4,000	195	30%	5%
	(10Y,20Y]	7/2/2024	20	12	2,000	2,000	60%	100%
		8/28/2024	25	8	2,000	2,000	32%	100%
		10/31/2024	26	12	2,000	2,000	46%	100%
		11/25/2024	28	5	2,000	2,000	18%	100%
	(20Y,30Y]	6/5/2024	20	20	2,000	2,000	100%	100%
		8/15/2024	34	9	2,000	2,000	26%	100%
		9/24/2024	35	13	2,000	2,000	37%	100%
		11/20/2024	34	14	2,000	2,000	41%	100%
		1/7/2025	36	4	2,000	2,000	11%	100%
Nominal Coupons (Cash Management)	CM [1M,2Y]	9/5/2024	35	18	5,000	5,000	51%	100%
		9/12/2024	39	3	5,000	5,000	8%	100%
		9/19/2024	41	9	5,000	5,000	22%	100%
		9/25/2024	37	19	5,000	5,000	51%	100%
		12/4/2024	49	20	7,500	7,500	41%	100%
		12/10/2024	49	19	7,500	7,500	39%	100%
		12/19/2024	47	14	7,500	3,729	30%	50%
TIPS	[1Y, 7.5Y]	6/11/2024	20	5	500	500	25%	100%
		8/21/2024	26	8	500	351	31%	70%
		10/2/2024	26	7	500	235	27%	47%
		11/6/2024	26	6	500	170	23%	34%
		1/9/2025	26	8	500	500	31%	100%
	(7.5Y,30Y]	7/10/2024	14	5	500	53	36%	11%
		9/17/2024	18	9	500	153	50%	31%
		10/23/2024	18	12	500	323	67%	65%
		12/17/2024	18	11	500	500	61%	100%

source: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs/

Summary Results

Cumulative Purchases

- Purchase Statistics
  - 319 issues were available for buyback, and 205 were accepted.
  - $92.052bn of Par Amount was accepted out of a potential $115bn.
  - Among issues accepted, the median and mean cumulative purchase sizes were $188mm and $449mm respectively.
  - Among all issues, including those which were not accepted as zeroes, the median and mean cumulative sizes were $60mm and $289mm respectively.
- It is notable that 10% of issues accepted comprised $48.422bn of Par Amount bought back (52.6% of total) over a median of 4 cumulative operations.
- The buyback program provided significant cumulative liquidity to those particular offer interests in the market.

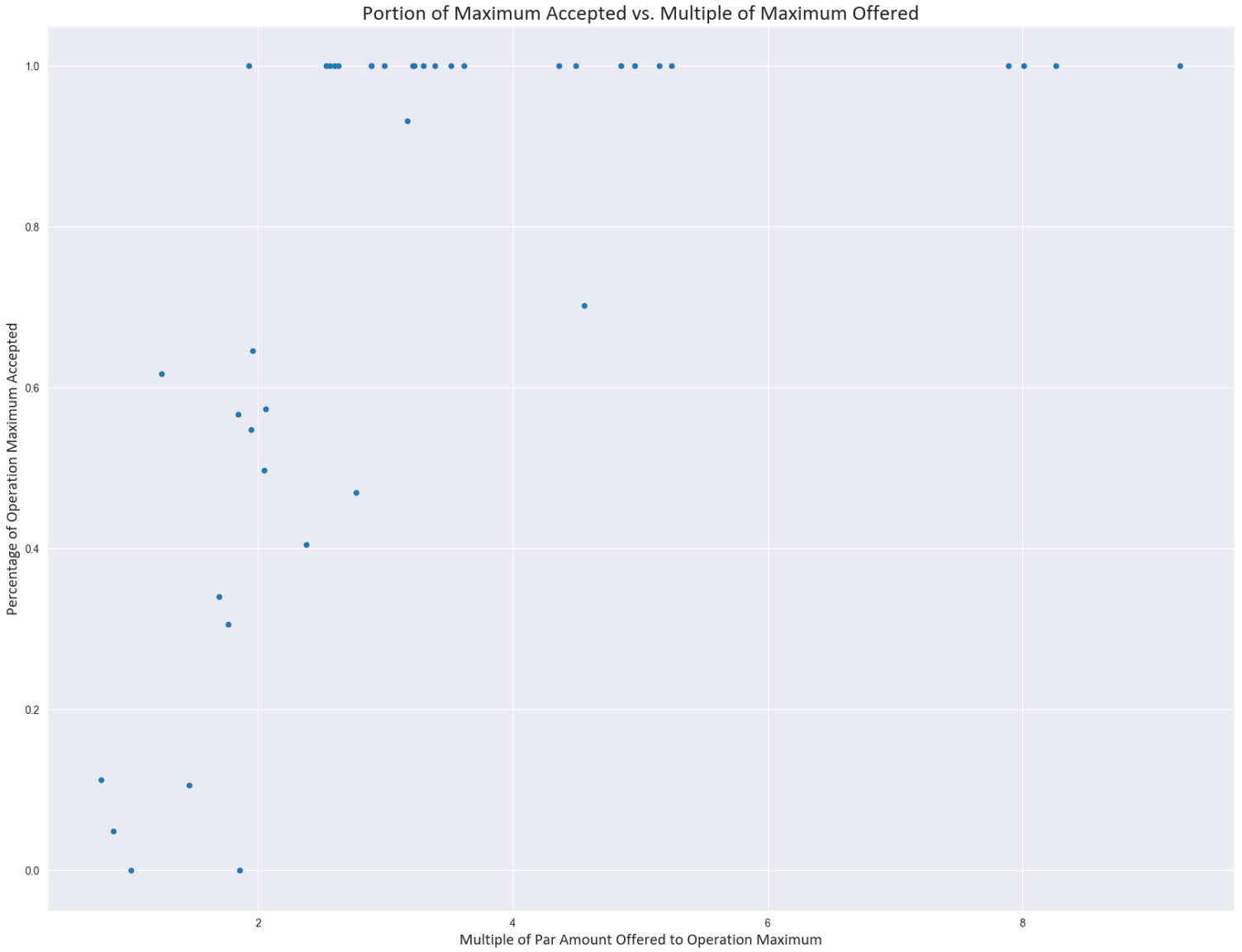
CUSIP	Coupon	Maturity	Cumulative $ Accepted	# Ops With Fills
91282CHN4	4.75%	7/31/2025	6,164,000,000	7
91282CFE6	3.13%	8/15/2025	4,906,000,000	4
91282CAB7	0.25%	7/31/2025	4,656,000,000	3
912828K74	2.00%	8/15/2025	4,565,000,000	5
91282CBQ3	0.50%	2/28/2026	3,672,000,000	6
912810SY5	2.25%	5/15/2041	3,500,000,000	4
912810RN0	2.88%	8/15/2045	2,018,000,000	4
91282CAT8	0.25%	10/31/2025	1,927,000,000	5
91282CAZ4	0.38%	11/30/2025	1,741,000,000	4
91282CAJ0	0.25%	8/31/2025	1,597,000,000	3
91282CHV6	5.00%	8/31/2025	1,533,000,000	3
912810RQ3	2.50%	2/15/2046	1,450,000,000	3
91282CJE2	5.00%	10/31/2025	1,353,000,000	5
91282CCW9	0.75%	8/31/2026	1,306,000,000	4
912828V98	2.25%	2/15/2027	1,278,000,000	1
912828P46	1.63%	2/15/2026	1,202,000,000	2
912828X88	2.38%	5/15/2027	1,192,000,000	3
91282CEQ0	2.75%	5/15/2025	1,176,000,000	3
912828ZT0	0.25%	5/31/2025	1,123,000,000	4
912810RM2	3.00%	5/15/2045	1,047,000,000	3
91282CFC0	2.63%	7/31/2029	1,016,000,000	3

source: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs/

Summary Results

Fills Versus Offers

- This scatter plot charts the ratio of total amount offered by dealers to the maximum amount of the buyback operation, against the fraction of that maximum which was filled.
- The scatter plot suggests that fill percentage is increasing with the multiple of maximum offered.
- Higher volume engagement with buyback operations being met with higher amounts filled is a reasonable indication of liquidity provision objectives being achieved.

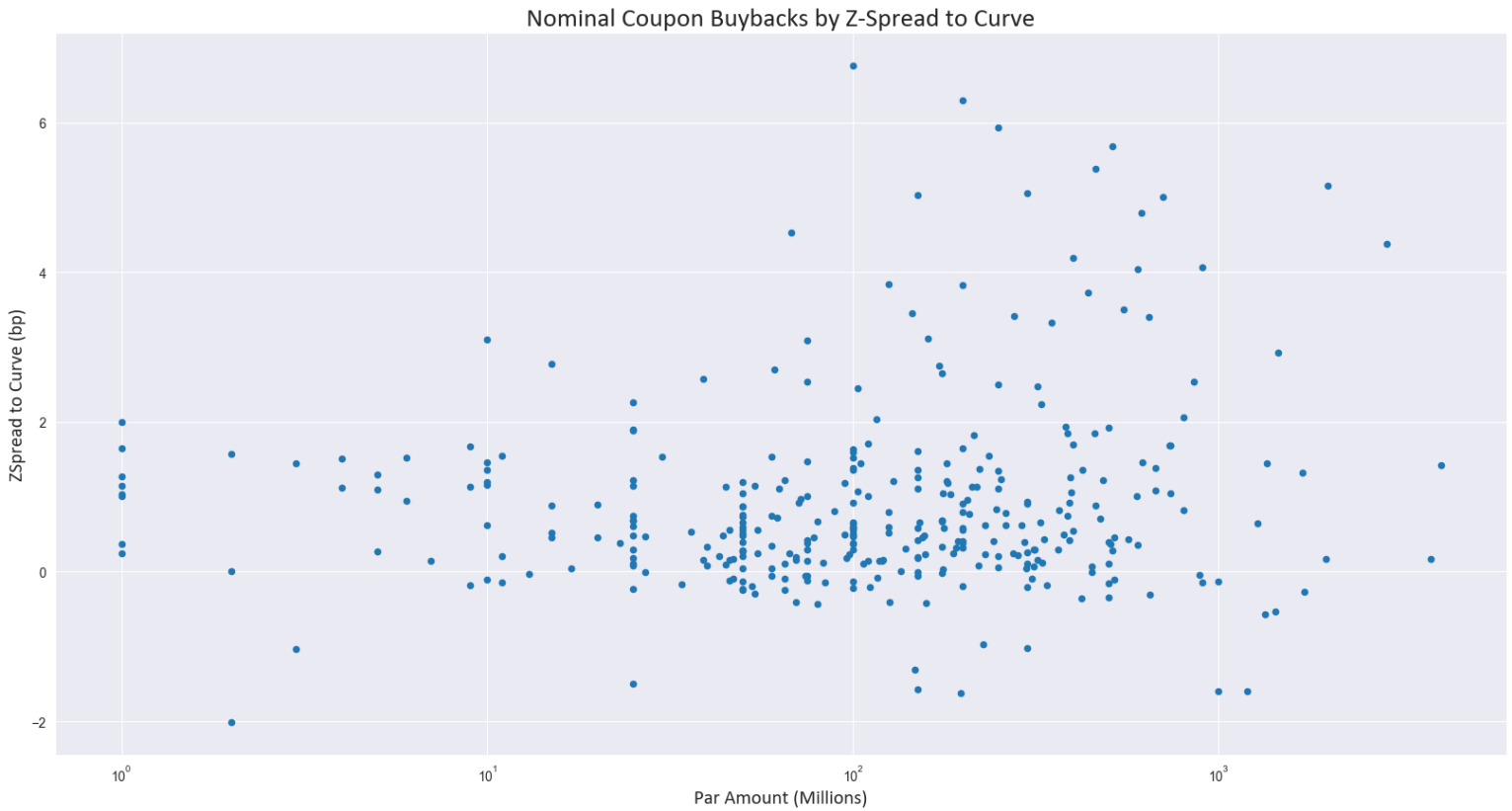


source: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs/

Summary Results

Relative Value of Accepted Offers

- This chart shows the basis point spread of each bond that was bought to the presenter's internal Z-spread spline* on the COB of the day it was purchased.
- The results generally show balance between relative value (mostly, but not uniformly positive on the presenter's model) and liquidity provision.
- Regardless of relative value measures, liquidity provision at prevailing prices supports liquidity in primary and secondary markets, as suggested by a prior TBAC presentation.**



Buyback Category	[1M, 2Y]	(2Y,3Y]	(3Y,5Y]	(5Y,7Y]	(7Y,10Y]	(10Y,20Y]	(20Y,30Y]
Notional-Weighted Average Cheapness (bp)	1.79	0.88	0.52	0.26	0.37	0.58	0.18

source: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs/ and presenter's own data and models
**the presenter's spline is weighted to prioritize off-the-run Treasury Z-spreads*
***https://home.treasury.gov/system/files/221/TBACCharge2Q32022.pdf*

Buybacks in Context of the Off-the-Run Market

Accepted Offers by Sector as a Percent of Market Volumes

- Portion of 3 day rolling average volume:
  - Accepted nominal coupon averaged 10% of rolling average volume around operation dates
  - If all operations had been fully filled, the operations would have averaged 13% of the rolling average volume.
- Treasury buybacks constitute a significant portion of purchase activity on the day of operations in each sector.
- But taking into account $183bn of average daily off-the-run volume during the study period, buybacks constitute a relatively small participation rate relative to total market volumes.

Security Type	Maturity*	Date	Off-the-Run Volume 3d Rolling Average Notional ($mm)	Buyback Notional ($mm)	Max Buyback Notional ($mm)	Buyback/Volume	Maximum/Volume
Nominal Coupons	(0,2]	5/29/2024	53,166	2,000	2,000	4%	4%
		8/7/2024	45,966	4,000	4,000	9%	9%
		11/13/2024	45,700	4,000	4,000	9%	9%
	(2,3]	6/26/2024	14,166	2,000	2,000	14%	14%
		9/4/2024	19,266	2,295	4,000	12%	21%
		12/5/2024	18,200	2,267	4,000	12%	22%
	(3,5]	7/18/2024	31,833	809	2,000	3%	6%
		10/16/2024	29,966	4000	4,000	13%	13%
		1/22/2025	37,833	4,000	4,000	11%	11%
	(5,7]	6/20/2024	14,233	1,864	2,000	13%	14%
		10/10/2024	12,033	2,469	4,000	21%	33%
		1/15/2025	21,133	2,190	4,000	10%	19%
	(7,10]	9/10/2024	11,800	449	4,000	4%	34%
		12/9/2024	17,066	195	4,000	1%	23%
	(10,20]	7/2/2024	14,533	2,000	2,000	14%	14%
		8/28/2024	20,500	2,000	2,000	10%	10%
		10/31/2024	18,033	2,000	2,000	11%	11%
		11/25/2024	30,600	2,000	2,000	7%	7%
	(20,30]	6/5/2024	29,933	2,000	2,000	7%	7%
		8/15/2024	52,500	2,000	2,000	4%	4%
		9/24/2024	30,600	2,000	2,000	7%	7%
		11/20/2024	32,733	2,000	2,000	6%	6%
		1/7/2025	29,100	2,000	2,000	7%	7%
Nominal Coupons (Cash Management)	(0,2]	9/5/2024	48,200	5,000	5,000	10%	10%
		9/12/2024	34,966	5,000	5,000	14%	14%
		9/19/2024	33,566	5,000	5,000	15%	15%
		9/25/2024	58,900	5,000	5,000	8%	8%
		12/4/2024	68,366	7,500	7,500	11%	11%
		12/10/2024	42,300	7,500	7,500	18%	18%
		12/19/2024	59,833	3,729	7,500	6%	13%

source: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs/, https://www.finra.org/finra-data/browse-catalog/about-treasury/daily-data

*maturity buckets aligned with FINRA daily aggregate volume data, not buyback operation maturity buckets.

Buybacks in Context of the Off-the-Run Market

Accepted Offers by Sector as a Percent of Market Volumes

- Off-the-run TIPS volumes are significantly smaller and more variable than Nominals.
- Buyback volumes constituted anywhere from 1% to 36% of local total volumes.
- In the long end of the curve in particular, maximum size fills could match the entirety of daily sector volumes.
- TIPS buybacks constitute a significant portion of purchase activity on the day of operations in each sector.
- TIPS buybacks may constitute a more significant cumulative liquidity provision to the off-the-run market, especially if more fully filled in future operations.

Security Type	Maturity*	Date	Off-the-Run Volume 3d Rolling Average Notional ($mm)	Buyback Notional ($mm)	Max Buyback Notional ($mm)	Buyback/Volume	Maximum/Volume
TIPS	(0,5]	6/11/2024	3,700	500	500	14%	14%
		8/21/2024	2,333	191	500	8%	21%
		10/2/2024	6,633	200	500	3%	8%
		11/6/2024	4,133	60	500	1%	12%
		1/9/2025	7,466	115	500	2%	7%
	(5,10]	8/21/2024	2,266	160	500	7%	22%
		9/17/2024	2,500	88	500	4%	20%
		10/2/2024	2,500	35	500	1%	20%
		10/23/2024	1,100	115	500	10%	45%
		11/6/2024	900	110	500	12%	56%
		12/17/2024	1,100	210	500	19%	45%
		1/9/2025	1,566	385	500	25%	32%
	(10,30]	7/10/2024	400	53	500	13%	125%
		9/17/2024	533	65	500	12%	94%
		10/23/2024	700	208	500	30%	71%
		12/17/2024	800	290	500	36%	63%

source: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs/ , https://www.finra.org/finra-data/browse-catalog/about-treasury/daily-data
*maturity buckets aligned with FINRA daily aggregate volume data, not buyback operation maturity buckets.

Buybacks in Context of the Off-the-Run Market

Accepted Offers by Sector as a Percent of Primary Dealer Balances

- On average, accepted Nominal Coupon volume constituted 19% of primary dealer balances in the (0,3] year sector and 4% of primary dealer balances in the (3,30] year sector.
- Treasury buybacks occur at a significant size relative to primary dealer balance sheet size in the short end.
- Treasury buybacks are also significant in size as compared to weekly changes in primary dealer balances in each sector.

Operation Type	Maturity	Date*	Dealer Balance Notional ($mm)	Week Balance Change Notional ($mm)	Buybacks Notional ($mm)	% of Net Balance
Liquidity Support	(0,2]	5/29/2024	26374	5433	2000	8%
		8/7/2024	24190	-1685	4000	17%
		11/13/2024	17039	-11241	4000	23%
	(2,3]	6/26/2024	13644	-2703	2000	15%
		9/4/2024	13508	-1946	2295	17%
		12/5/2024	18552	539	2267	12%
	(3,6]	6/20/2024	66651	-82	1022	2%
		7/18/2024	69905	1836	809	1%
		10/10/2024	65790	-4949	1294	2%
		10/16/2024	60841	-4949	4000	7%
		1/15/2025	91939	4660	1827	2%
		**1/22/2025	91939	-	4000	4%
	(6,7]	6/20/2024	25756	696	842	3%
		10/10/2024	20621	-527	1175	6%
		1/15/2025	16639	-6707	363	2%
	(7,11]	9/10/2024	27097	1229	449	2%
		12/9/2024	34470	2553	195	1%
	(11,21]	6/5/2024	21458	3376	73	0%
		7/2/2024	22652	8	2000	9%
		8/15/2024	26675	-2216	520	2%
		8/28/2024	26778	2319	2000	7%
		9/24/2024	24033	-1927	500	2%
		10/31/2024	21910	369	2000	9%
		11/20/2024	20967	596	922	4%
		11/25/2024	20967	4331	2000	10%
		1/7/2025	29367	-5391	1000	3%
	(21,30]	6/5/2024	27100	-1616	1927	7%
		8/15/2024	35165	1046	1480	4%
		9/24/2024	36855	68	1500	4%
		11/20/2024	31885	3594	1078	3%
		1/7/2025	42470	337	1000	2%
Cash Management	(0,2]	9/5/2024	34686	1231	5000	14%
		9/12/2024	35917	-8357	5000	14%
		9/19/2024	27560	-7381	5000	18%
		9/25/2024	20179	-7381	5000	25%
		12/4/2024	21377	10301	7500	35%
		12/10/2024	21377	-3334	7500	35%
		12/19/2024	23001	3794	3729	16%

sources: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs, https://www.newyorkfed.org/markets/counterparties/primary-dealers-statistics

**The date reflects the date of the buyback operation in which the purchases occurred. The dealer balances are reported weekly, and the table contains the closest date prior to the operation date. Some dates appear more than once as some buybacks straddled multiple maturity buckets used in the Federal Reserve's Primary Dealer Balance data, e.g. 9/25/2024 has a single liquidity support operation split into the (11,21] and (21,31] buckets.*

*** At time of writing, the data for dealer balances for this observation has not yet been published.*

Buybacks in Context of the Off-the-Run Market

Accepted Offers by Sector as a Percent of Primary Dealer Balances

- TIPS buybacks have been generally smaller as a percentage of primary dealer balances.
- On average, accepted Nominal Coupon volume constituted 2% of dealer balances in the (0,11] year sector.
- In the long end of the TIPS curve, primary dealer balances are small to begin with, so in that sector buybacks can be and have been large by comparison.
- In all sectors, TIPS buybacks are significant in size as compared to weekly changes in primary dealer balances.

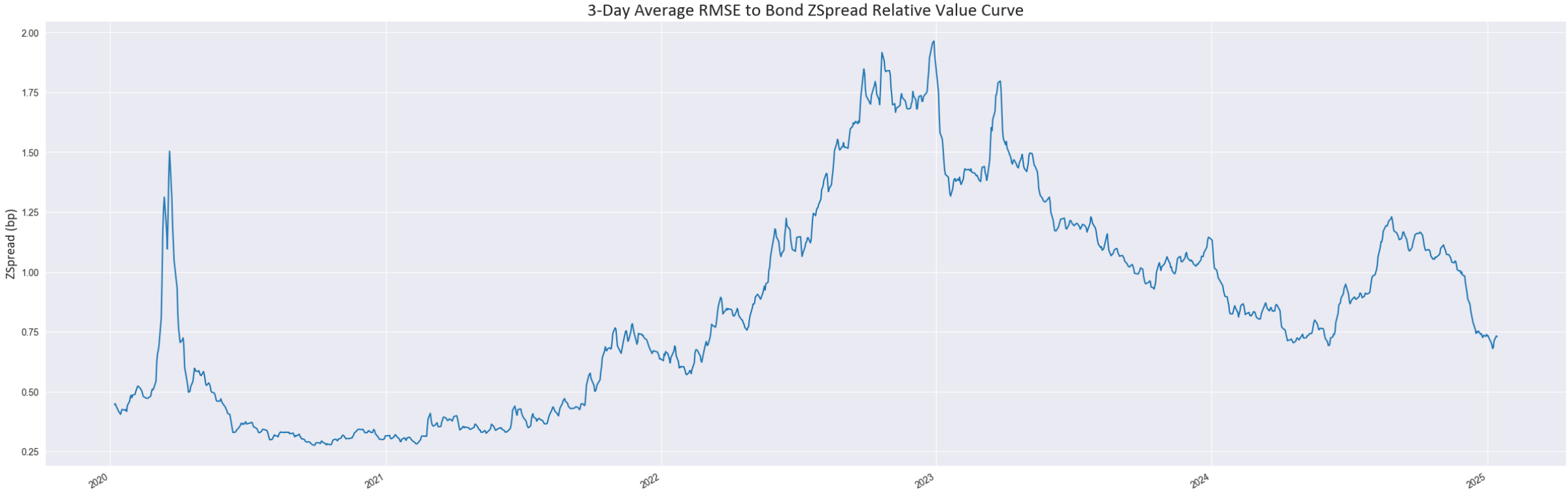
Security Type	Maturity	Date*	Dealer Balance	Week Balance Change	Buybacks	% of Net Balance
TIPS	(0,2]	6/11/2024	15795	-2451	372	2%
		8/21/2024	11168	-787	30	0%
		10/2/2024	11399	-6	1	0%
		1/9/2025	8976	210	10	0%
	(2,6]	6/11/2024	5039	1927	128	3%
		8/21/2024	6755	384	286	4%
		10/2/2024	8355	706	199	2%
		11/6/2024	8665	468	145	2%
		1/9/2025	9349	-1417	190	2%
	(6,11]	8/21/2024	5018	877	35	1%
		9/17/2024	4964	-424	88	2%
		10/2/2024	3236	-1835	35	1%
		10/23/2024	3252	-749	115	4%
		11/6/2024	2623	-1462	25	1%
		12/17/2024	4016	-354	210	5%
		1/9/2025	3184	-335	300	9%
	(11,31]	7/10/2024	396	123	53	13%
		9/17/2024	-357	147	65	
		10/23/2024	-87	451	208	
		12/17/2024	22	202	290	129%

sources: https://treasurydirect.gov/auctions/announcements-data-results/buy-backs, https://www.newyorkfed.org/markets/counterparties/primary-dealers-statistics

**The date reflects the date of the buyback operation in which the purchases occurred. The dealer balances are reported weekly, and the table contains the closest date prior to the operation date. Some dates appear more than once as some buybacks straddled multiple maturity buckets used in the Federal Reserve's Primary Dealer Balance data, e.g. 8/21/2024 contains a single liquidity support operation between 1Y and 7.5Y split into [0,2], (2,6], (6,11] buckets in accordance with the Fed's available data*

Treasury Market Conditions

Trimmed RMSE Of SOFR Z-Spread RV Curve

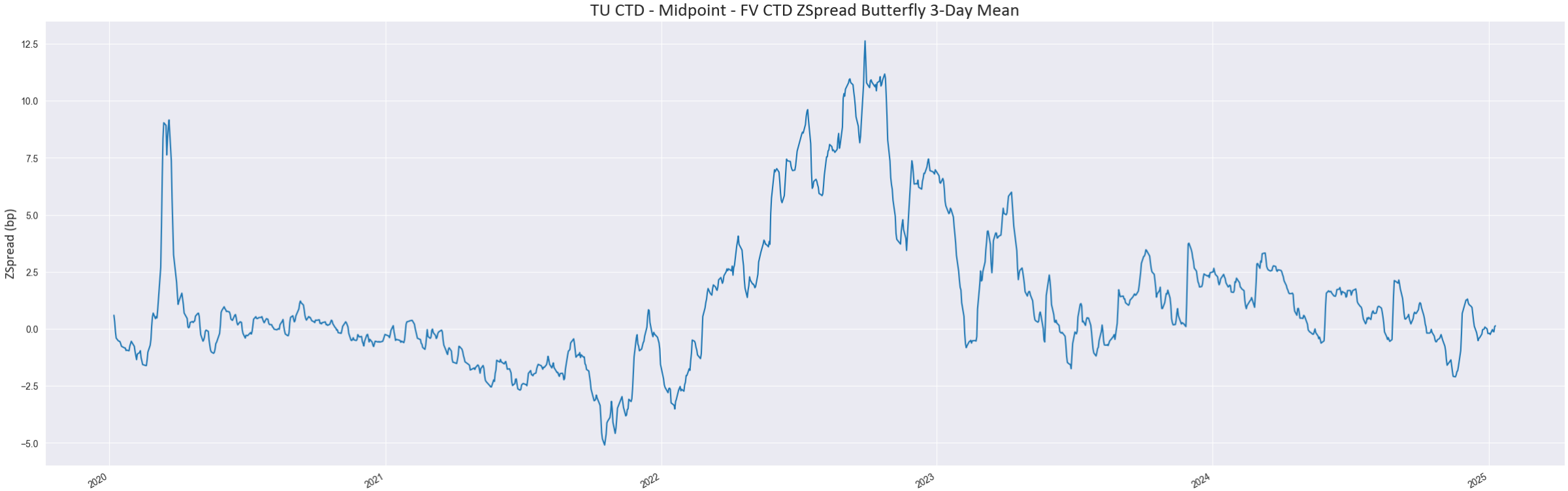


- Higher uncertainty during the COVID liquidity crunch and the volatile selloff to higher rates in 2022 increased Treasury Asset Swap spline errors.
- Once 5% outliers (especially rich, aged bonds at the front end of the curve) are trimmed, spline errors have generally trended lower since the start of 2023 and varied within a range in the past year.
- This may indicate generally increased or at least stable market appetite for Treasury relative value over the period during which buybacks have taken place.

source: presenter's own data and models

Treasury Market Conditions

TU – 3.5Y – FV SOFR Z-Spread Butterfly

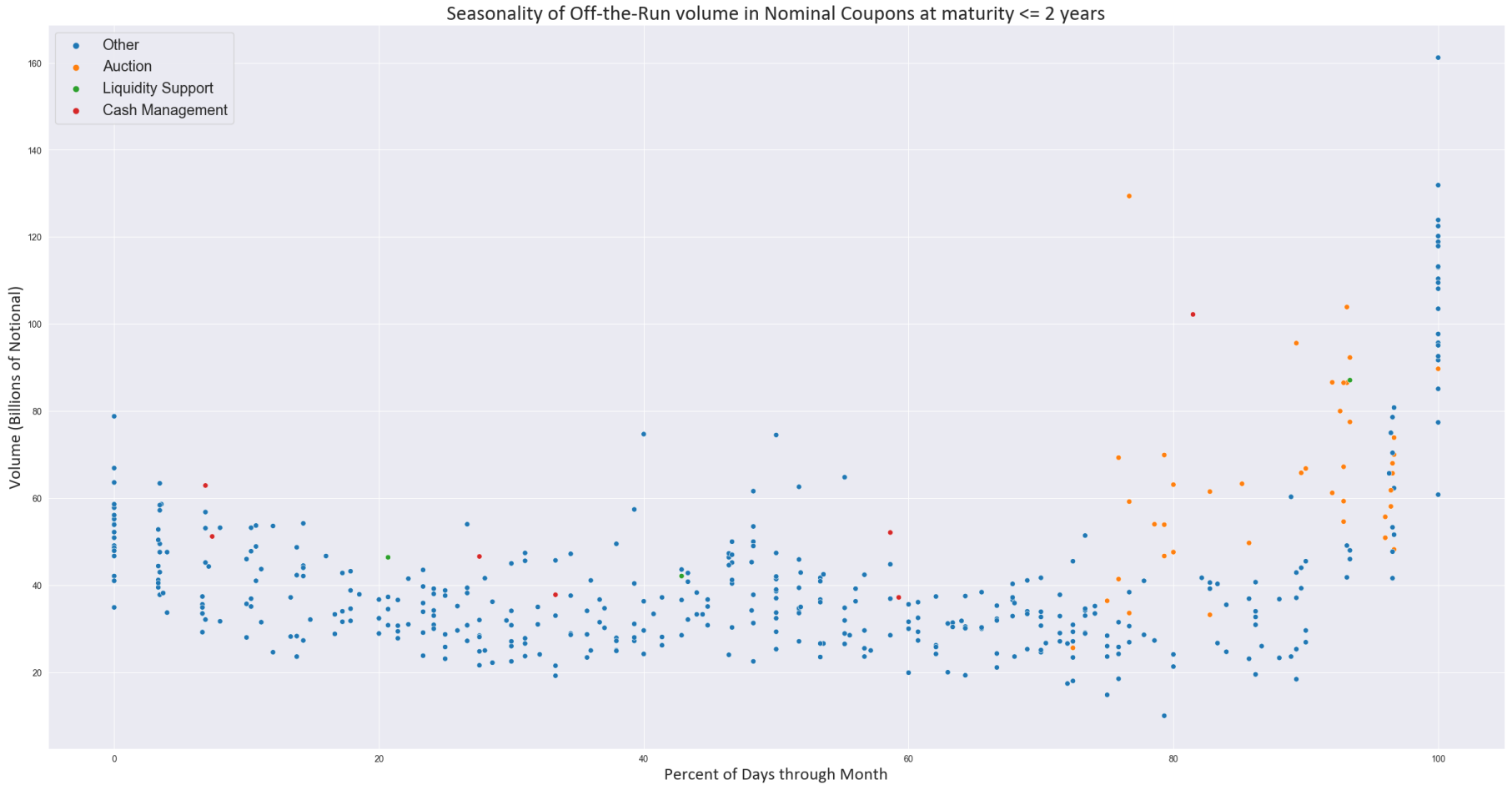


- This is a time series of a Z-spread butterfly where the wings are the TU and FV futures CTDs, and the body is a model off-the-run bond with maturity = Average(TU CTD maturity, FV CTD maturity).
- It may be a good indicator of liquidity premiums in one high volume sector of the yield curve.
- While elevated during the COVID liquidity crunch and the volatile selloff to higher rates in 2022, this butterfly has generally traded in a stable range in the lower half of its 5y min/max range over the past year.
- This may indicate generally increased or at least stable market appetite for Treasury relative value over the past year.

source: presenter's own data and models

Temporal Market Data Analysis

In-Month Seasonality of (0Y,2Y] Off-the-Run Volumes

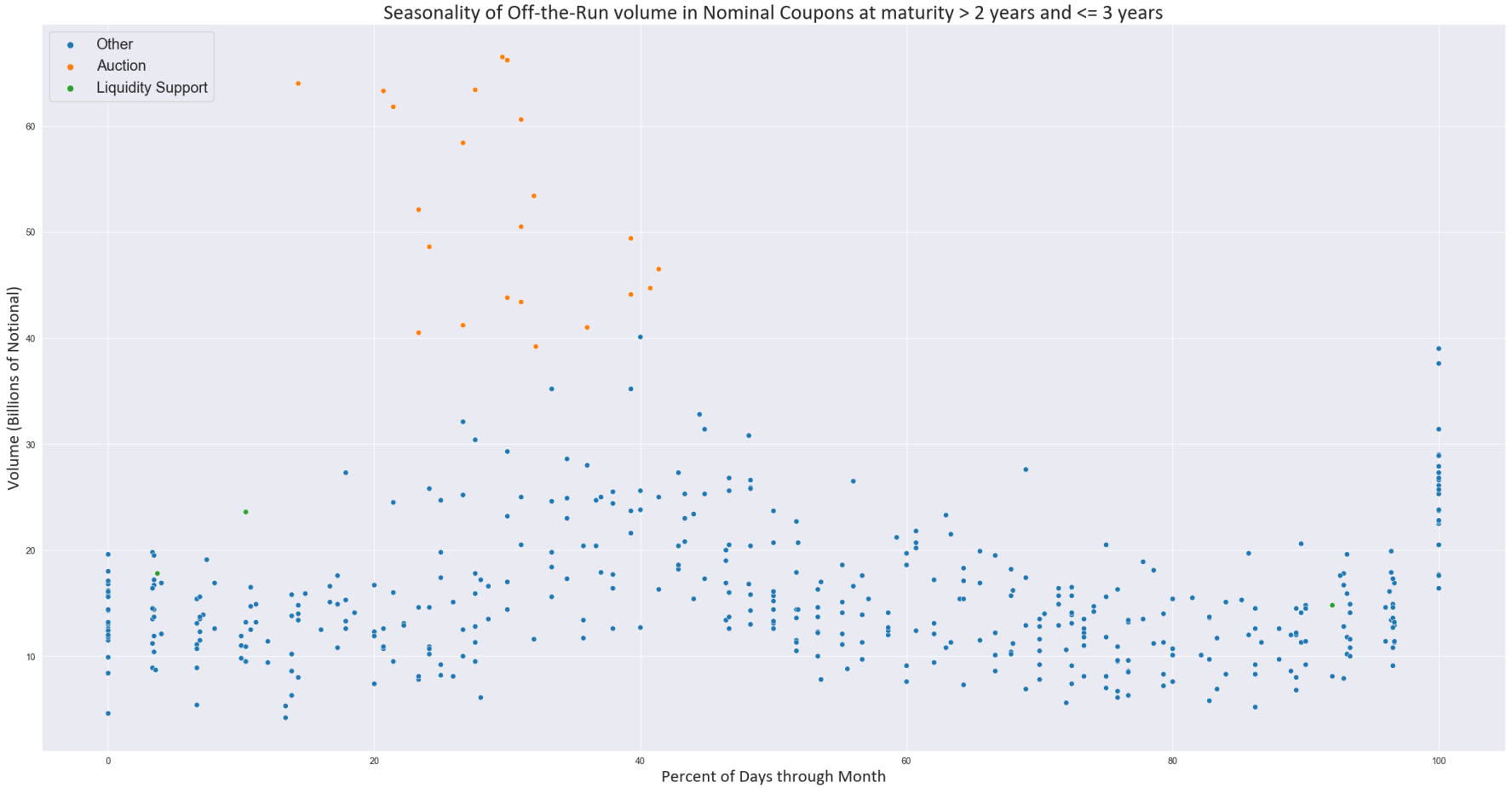


- There is in-month seasonality whereby more higher-volume days occur after the day after primary issuance and at month end:
  - Some of the higher off-the-run volumes around primary auction days is likely attributable to rolls from very recently issued bonds to the on-the-run bond.
  - Some of the higher off-the-run volumes could also present liquidity provision opportunities for the buyback program.
  - Treasury could study volume data available via Treasury TRACE to explore this dynamic.

source: https://www.finra.org/finra-data/browse-catalog/about-treasury/daily-data
Daily aggregate trace volume data from 2023-03-01 to 2024-12-31, all available complete months at time of writing.

Temporal Market Data Analysis

In-Month Seasonality of (2Y,3Y] Off-the-Run Volumes



- There is in-month seasonality whereby more higher-volume days occur after the day after primary issuance and at month end:
  - Some of the higher off-the-run volumes around primary auction days is likely attributable to rolls from very recently issued bonds to the on-the-run bond.
  - Some of the higher off-the-run volumes could also present liquidity provision opportunities for the buyback program.
  - Treasury could study volume data available via Treasury TRACE to explore this dynamic.

source: https://www.finra.org/finra-data/browse-catalog/about-treasury/daily-data
Daily aggregate trace volume data from 2023-03-01 to 2024-12-31, all available complete months at time of writing.

Conclusions

- Operation Fills :
  - Cash Management buybacks and Liquidity Support buybacks in the [1M,2] and (10,30] Nominal sectors were very well filled.
  - Operations in the belly of the Nominal curve and in TIPS were less consistently subscribed and filled, which may indicate less of a need for liquidity during the period, less willingness to sell at necessary prices to get filled, or both.
  - Higher volume of offers relative to maximums in the operations were generally correlated to higher fills as a % of maximums.
- Market Conditions:
  - There is some evidence that Treasury market conditions during the study period were characterized by stable relative value opportunities and liquidity premiums. Future periods may see more demand for off-the-run liquidity.
  - Relative value measurements do seem to support healthy operational balance between liquidity provision and relative value.
- Portion of Market Volume:
  - Cumulative accepted volume was concentrated in the top percentiles of issues, indicating some local and ongoing market axes to exhaust specific inventory via buyback operations.
  - Treasury buybacks constitute significant percentages of volumes, primary dealer balance sheet sizes, and weekly changes in primary dealer balances at the localized time of each operation.
  - Given the modest size of operations in the context of cumulative market volumes, and when the time lags between operations in each sector are considered, the impact of buybacks in the context of the Treasury market is moderate.
- Dealer feedback* has described that the program functions well, provides outlets for off-the-run inventory, and is moderately supportive of off-the-run Treasury market liquidity and functioning.
- The current buyback program is broadly achieving its stated objectives and there is little evidence of a pressing need to change the program from its current setting.

source: https://home.treasury.gov/system/files/221/CombinedChargesforArchivesQ32024.pdf

Potential Study Items for the Program

Nominal Coupons

- Treasury should continue to study the results of the buyback program at its current capacity, and give thought to how the capacity might scale with future changes in total primary issuance and the size of the off-the-run market.
  - Treasury has communicated liquidity support buyback maximums of $30bn per quarter.
  - Over time, amounts offered and/or accepted could grow to suggest that demand for larger operations is growing.
  - Primary issuance sizes and sector composition will evolve.
  - It is useful to continue to study heuristics for sizing buybacks relative to primary issuance.
- While buyback scheduling may be constrained by Treasury's operational preferences and limitations, there is evidence of in-month seasonality in off-the-run volumes. It may follow that there is a workable schedule that more optimally meets elevated intra-month demand for liquidity.
  - Some of the higher off-the-run volumes around primary auction days is likely attributable to rolls from very recently issued bonds to the on-the-run bond.
  - Some of the higher off-the-run volumes could also present liquidity provision opportunities for the buyback program.
  - Treasury could study volume data available via Treasury TRACE to explore this dynamic, as well as discussing it with primary dealers.
- Demand for off-the-run liquidity currently seems more concentrated at the short and long ends of the curve.
  - This could be transient (e.g., short term supply/demand effects).
  - It could also be persistent (e.g., segmentation of market participants by sector leading to more of a liquidity need in some parts of the curve, market making returns on market risk or regulatory constraint differing by curve and product segment, etc.).
  - This could be a study item and a discussion topic for Treasury's interactions with dealers.
- It is worth exploring with primary dealers whether any uncertainties (e.g., duration hedging, timing of result releases, fair value assessment, etc.) prevents the buyback program from being even more effective than it already is.

source: https://home.treasury.gov/system/files/221/TBACCharge2Q32022.pdf, https://home.treasury.gov/system/files/221/TBACCharge1Q12023.pdf

Potential Study Items for the Program

TIPS

- Buybacks in TIPS have had uneven result statistics. Treasury should monitor whether this changes in time.
- The under 1y sector of TIPS is excluded from the program despite being a sector where liquidity support could prove beneficial.
- If either of the above is due to complexity in assessing the relative value of offers, valuation modeling could be researched.
    - Primary dealers who are active in the TIPS market publish research that highlights how they approach fair value modeling.
    - As the buyback program matures, and as market data continues to become richer, conducting research in this space can add value.
    - It is worth discussing the above topic with primary dealers in the context of TIPS buybacks.

Developments in Central Clearing in the U.S. Treasury Market

February 2025

Developments in Central Clearing: In December 2023, the SEC adopted rules intended to expand central clearing of Treasury security and repo transactions. Please comment on developments in the process for implementing these rules. How do you expect the sponsored access and agent clearing models outlined by FICC to be used by indirect participants? Do you expect clearinghouse members to continue posting margin on behalf of some clients? What are the prospects for clearinghouse members to clear trades that clients execute with other counterparties (i.e., "done away")? To what extent may market participants decide to become clearinghouse members (rather than indirect participants)? Several firms have announced intentions to launch new Treasury securities clearinghouses. What are the potential benefits and costs of multiple clearinghouses? What lessons can be learned from other markets, some of which have several competing clearinghouses and others of which have only one?

Executive Summary

- The SEC's central clearing 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" (Rule)—adopted in December 2023 represents the most significant change to the structure of the Treasury market in decades.
    - The Rule may require as much as $4TN in additional daily transactions to be centrally cleared.
- Implementing the rule is highly complex, necessitating significant legal, operational and systems changes to set up clearing arrangements, contribute margin and restructure trading and settlement systems.
- The Rule will likely make the market more resilient by reducing counterparty credit and financial stability risks, and by reducing balance sheet costs, but it is likely to introduce additional liquidity, capital, legal, and operational costs associated with central counterparty (CCP) clearing and risk management, including margin.
- There are several scoping issues where the industry is seeking clarification from the SEC, including around mixed collateral in triparty repo and inter-affiliate transactions.
    - SIFMA and other industry associations have requested that the implementation dates, including December 2025 for cash market trades and June 2026 for repo trades, be pushed back by a minimum of 12 months in order to allow time to address scoping and implementation issues.
- CCPs continue to develop new access models and solutions for clearing that will play an important role in improving the scalability of clearing. These models, including "done-away" clearing models, may help address market concerns around the additional costs imposed by clearing but require time to develop effectively.
- The entrance of additional CCPs could spur competition in access models and lower costs, but it could also raise a number of risks including the fragmentation of liquidity, and an inability to obtain balance sheet netting and net margin across CCPs absent cross margining arrangements.
- Given the changes in market structure, centrally clearing the Federal Reserve's Standing Repo Facility (SRF) could enhance its effectiveness and support market liquidity by enabling netting and further reducing balance sheet costs for SRF counterparties.

Agenda

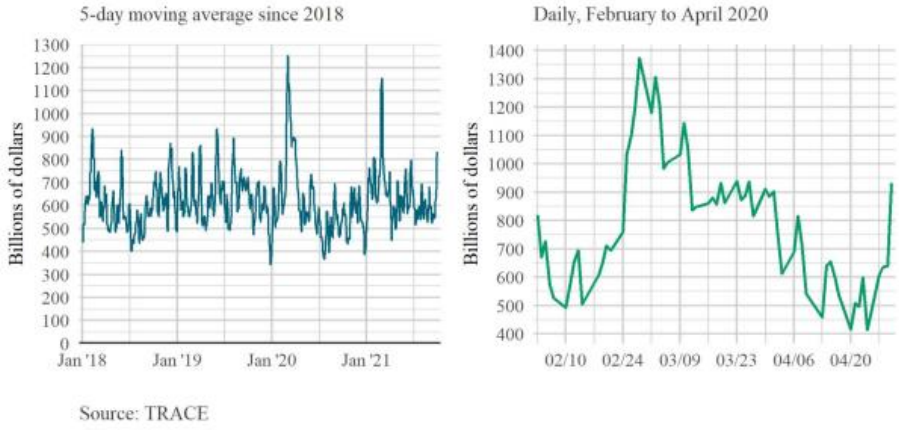
1. Background on the Rule
2. Impact on the Market
3. Implementation of the Rule
4. Open Scoping Questions
5. Expansion of CCP Access & Membership
    a) Direct vs. Indirect Membership
    b) FICC Sponsored vs Agent Clearing Models
    c) Development of Done-Away Clearing
    d) Cash Market Trading on Interdealer Broker Platforms
6. Expansion to Multiple Clearinghouses
    a) New Entrants
    b) Considerations for Multiple CCPs
7. Margin Practices
    a) Current Practices & Impact of Central Clearing
    b) CCP Margin Efficiencies
8. Related Considerations
    a) Central Clearing of Federal Reserve Operations

1. Background on the Rule

Treasury Market Resiliency Efforts

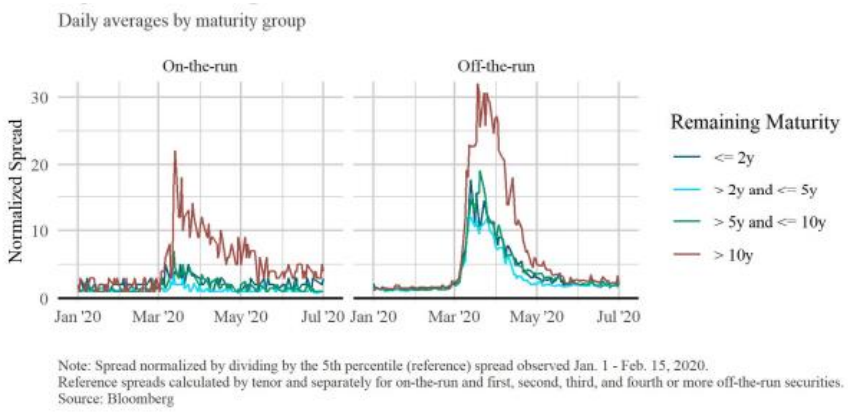
- In the wake of several episodes of abrupt deterioration in the functioning of the U.S. Treasury market, including the pandemic "dash for cash," repo funding pressures in 2019, and the 2014 "flash rally," both the **public and private sectors have pursued enhancements in the resiliency of the market**, including the exploration of expanding central clearing.
  - Following the "flash rally" in 2014, the Inter-Agency Working Group for Treasury Market Surveillance (IAWG), comprised of staff from across the public sector, recommended the review of risk management practices associated with clearing and settlement risks.
  - The Treasury Market Practices Group (TMPG), a group of senior Treasury market professionals sponsored by the New York Fed, published best practices for the clearing and settlement of Treasuries in 2019.
  - The Office of Financial Research (OFR) conducted a data collection pilot for non-centrally cleared bilateral repo starting in 2015 and finalized rules requiring data reporting in 2024.
- **Resiliency efforts accelerated following dysfunction in the pandemic "**dash for cash," with the IAWG in 2021 proposing five broad workstreams to strengthen the market, including evaluating expanded central clearing.
  - Figure 1 shows cash transaction volumes reached a record of more than $1.3TN in February 2020.
  - Figure 2 shows deterioration in market functioning with bid-ask spreads for on and off the run Treasuries widening significantly.
  - In 2021, The Group of 30 (G30), an independent global body comprised of economic and financial leaders from the public and private sectors and academia also recommended an expansion of central clearing, among other efforts.
- **The SEC adopted the Rule to expand central clearing in December 2023.**

Figure 1 – Total Transaction Volumes



Source: 2021 IAWG Staff Progress Report

Figure 2 – Bid-Ask Spreads



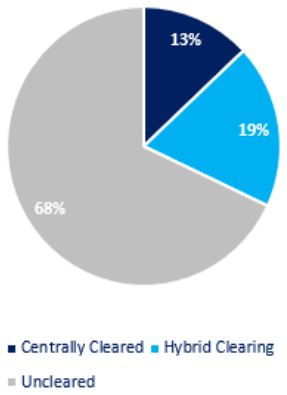
Source: 2021 IAWG Staff Progress Report

Background on the Rule

- Because the U.S. Treasury market plays a crucial role in the global economy, confidence and resilience in the U.S. Treasury market and its ability to function effectively is vital to the stability of the global financial system.
- The SEC highlighted inconsistent and opaque risk management practices associated with non-centrally cleared trades that could threaten market functioning by posing the **risk of contagion** to the CCP and the financial system in the event of a default.
- As seen in Figure 3, based on estimates from the TMPG, only 13% of cash trading is fully centrally cleared, with an additional 19% of the cash market being "hybrid" cleared on interdealer platforms, whereby one leg of the trade clears and settles through a CCP and the other leg is bilaterally cleared.
- Based on New York Fed Data, Figure 4 shows that only 37% of dealer repo & reverse repo is centrally cleared across repo markets.
- The SEC highlighted several areas where central clearing would strengthen the market:
  - **Decrease in Counterparty Credit Risk –** A CCP would be the counterparty to each transaction, subjecting transactions to the CCP's risk and default management processes.
  - **Better Manage Defaults –** Defaults would be subject to CCP default management processes, completing settlement of the transactions and mutualizing losses from the default when losses exceed the defaulter's own financial resources at the CCP.
  - **Decrease Operational & Liquidity Risk –** Netting could reduce gross settlement volumes and balance sheet costs, enhancing dealer capacity to make markets.
  - **Unlock Further Improvements in Market Structure –** Clearing could support other market structure improvements by reducing risk and improving efficiency; for example, by narrowing intermediation spreads or encouraging the movement to all-to-all trading.
  - **Enhance Regulatory Visibility –** Clearing should increase the transparency of settlement risk and allow CCPs to identify concentrated positions and crowded trades.
- The Rule applies to Covered Clearing Agencies (CCAs), requiring them to adopt policies and procedures for their members to centrally clear certain cash and repo transactions.

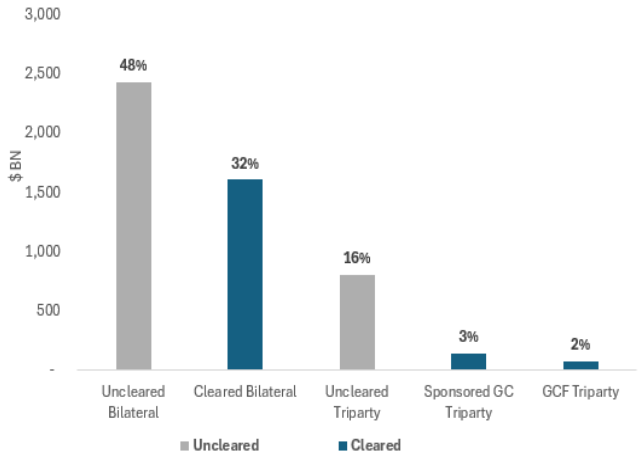
"This use of both centrally cleared and not centrally cleared transactions introduces risk into the market, because bilateral clearing involves varying risk management practices that are less uniform and less transparent to the broader market and may be less efficient with regard to netting exposures and use of collateral as compared to central clearing." – SEC Final Rule

Figure 3 – Cash Treasuries Clearing Landscape



Source: 2018 Treasury Market Practices Group paper

Figure 4 – Daily Average of Primary Dealer Treasury Repo & Reverse Repo(Q4 2024)



Source: Federal Reserve Bank of New York

Overview of the Rule

Securities and Exchange Commission Rule:

- Requires covered clearing agencies to have clearing members submit “eligible” secondary market U.S. Treasury trades for clearing.
- Includes requirements for CCPs to be able to separate client and house activity and margin and facilitate indirect access.

ELIGIBLE TRANSACTIONS IN SCOPE

Cash Market – December 2025:

- All purchases and sales of U.S. Treasury securities for direct participants, if the direct participant brings together multiple buyers and sellers using a trading facility and is a counterparty to both the buyer and seller in two separate transactions.
- All purchases and sales of U.S. Treasury securities between a direct participant and a registered broker-dealer, government securities dealer or government securities broker.

Repo Market – June 2026:

- All repo and reverse repo agreements collateralized by U.S. Treasury securities to which a direct participant is a counterparty.

TRANSACTIONS NOT IN SCOPE

Cash and Repo Market Exclusions

- Transactions that do not meet the definition of an eligible transaction need not be cleared.
- Transactions involving a central bank, a sovereign entity, an international financial institution or a natural person.
- Transactions that are not currently eligible for clearing by FICC, for example open transactions, evergreen repos, and trades with maturities greater than two years.

Additional Repo Exclusions

- State and local government repo transactions. This exclusion does not apply to state retirement and pension funds.
- Inter-affiliate repo transactions conditionally excluded, provided that the affiliated counterparty submits all other Treasury repos to which it is a party.

Current Implementation Timeline

FICC Treasury Clearing Client Impact Roadmap

2. Impact on the Market

Scale of the Markets

Scope of Cash and Repo Markets:

- U.S. Treasury cash and repo markets have **more than $6TN** in daily activity, the majority of which is not centrally cleared.
- According to a recent industry survey by FICC, daily Treasury clearing activity is expected to **increase by approximately $4TN each day.**

CASH – PURCHASE & SALE	
TRANSACTION TYPE	**DAILY AVG (BN)**
ATS and Interdealer Broker	**$483**
Dealer to Customer	$443
TOTAL	$926

Prepared by member reflecting FINRA TRACE's Daily Aggregate Treasury Statistics for 4th Quarter, 2024.

Market segments with uncleared activity that may require central clearing under Rule

FINANCING – REPO & REVERSE REPO*	
TRANSACTION TYPE	**DAILY AVG (BN)**
Uncleared Bilateral	**$2,429**
Cleared Bilateral	$1,616
Uncleared Triparty	**$805**
GCF Triparty	$80
Sponsored GC Triparty	146
TOTAL	$5,076

Prepared by member reflecting New York Fed's Primary Dealer Statistics for 4th Quarter 2024. Primary dealers do not typically participate in the ON RRP and are therefore not reflected.

*https://www.dtcc.com/news/2024/july/15/dtcc-survey-significant-improvements-in-industry-preparedness-around-expanded-us-treasury-clearing

Implications for the Market

In a large and growing Treasury market, the Rule may have a series of important implications:

- **Counterparty & Systemic Risk**
  - Risk of counterparty default and fire sales should be lower, making markets less likely to pull back in times of stress.
- **Balance Sheet Capacity & Settlement Efficiency**
  - Netting could benefit balance sheets and capacity. A NY Fed study found reduction in gross settlements by as much as 70%.
- **Transaction, Capital, and Liquidity Costs**
  - Possibly introduces additional CCP clearing and risk management costs.
  - Margin costs may increase and will vary depending on collateral, with larger impacts for longer dated and less liquid securities.
- **Spreads & Liquidity**
  - Low-margin / high-volume trades and leverage likely to become more costly, widening spreads, such as the cash-futures basis.

Figure 5 – U.S. Debt Held by the Public Outstanding ($TN)

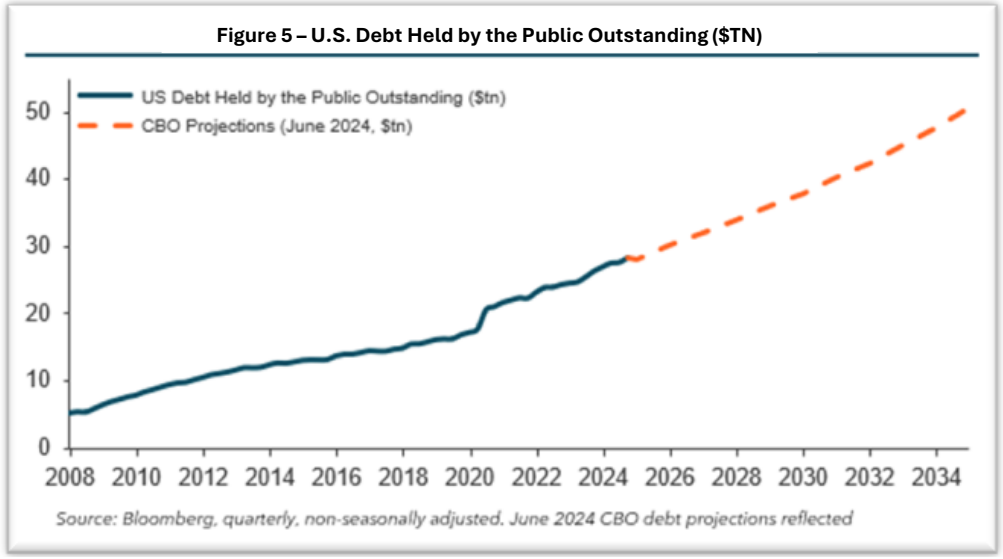
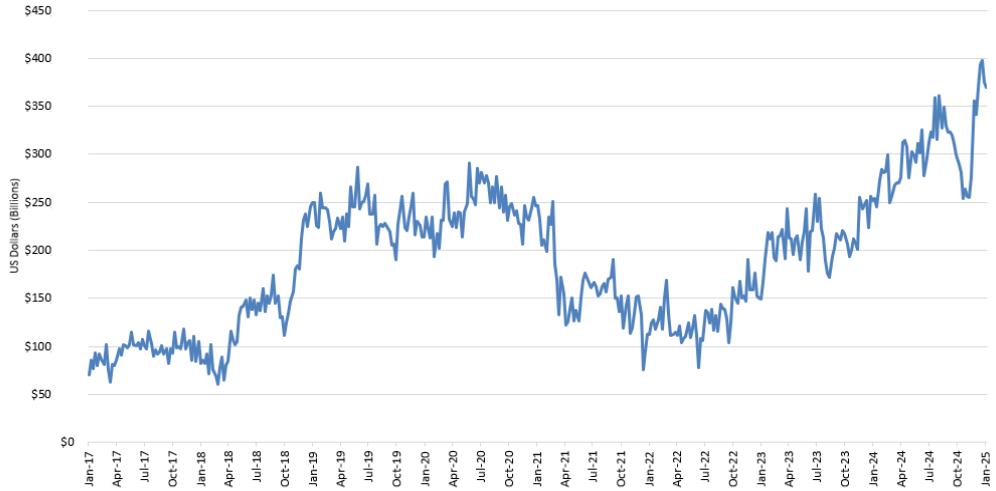


Figure 6 – Dealer Holdings of U.S. Treasuries



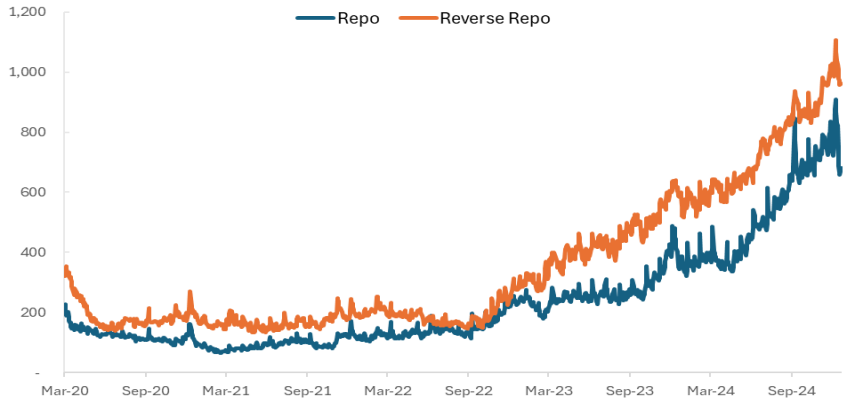
Source: Federal Reserve Bank of New York

3. Implementation of the Rule

Current Status of Industry Preparedness

- Market participants are at varying stages of readiness, with many supportive of an extension in the compliance dates.
- FICC has done outreach and provided regular industry updates, including the publication of a report on the implications of central clearing in July 2024, 'The U.S. Treasury Clearing Mandate: An Industry Pulse Check."
    - FICC Sponsored Repo volumes have grown over 75% since the final Rule was approved in December 2023.
- Currently, FICC is the only Treasury market CCP. Other entities, including Chicago Mercantile Exchange (CME) and Intercontinental Exchange (ICE), have either applied or announced their intention to apply to become Treasury CCPs.
- SIFMA and other industry workgroups are engaged:
    - SIFMA is currently working on standardized documentation due to concerns about the time required to negotiate bilateral clearing agreements.
    - SIFMA and EY recently published a report on Industry Considerations to prepare for compliance with the Rule.
    - A range of other industry working groups have been formed to address open implementation issues.
    - Industry groups, including SIFMA, FIA, MFA, and ISDA, have raised scoping and implementation challenges and in January 2025 requested an extension to the compliance dates of at least 12 months.

Figure 7 – FICC Sponsored Repo ($BN)



Source: DTCC

Industry Working Groups
SIFMA Legal, Operations, and Capital Working Groups
FIA Treasury Clearing Working Group
TMPG NCCBR Working Group
FICC Advisory Council
ISDA U.S. Clearing Group & Clearing Member Committee

Steps to Implementation

As market participants prepare for central clearing, a variety of changes to business processes and operational infrastructure are likely needed, including:

	Implementation Steps	Open Issues
Assess Eligibility of Treasury Transactions	• Market participants will need to review their U.S. Treasury transactions to determine which of their cash and repo transactions are in scope as part of the mandate.	• There are a several **open scoping questions**, see section 4, page 16.
Obtain or Expand Access to Clearing	• Market participants will need to assess the available access models and determine the one best suited to their needs. • Direct participants will need to determine what model to offer to their customers. • Contracts will be needed before the compliance dates to establish relationships.	• Issues affecting the expansion of access to clearing include the **expansion of direct CCP membership**, **expansion of indirect access**, **development of "done-away" clearing**, and **cash market trading on interdealer broker platforms**. See section 5, page 18-25**.**
Make Infrastructure and Operational Changes	• Direct members will need to make infrastructure changes to support CCP membership and client activity, potentially including multiple access models and CCPs. • Indirect participants may require operational enhancements to meet various CCP and clearing member requirements.	• Changes will be required to accommodate the **expansion to multiple clearinghouses**, see section 6, page 27-28.
Determine Approach to Margining	• Direct participants will need to determine what approach they will utilize for margining customer activity. • Indirect participants will need to review current liquidity management processes in anticipation of increased margin.	• There are open questions regarding **margin practices**, see section 7, page 30-31.

4. Open Scoping Questions

Open Scoping Questions

The Industry has highlighted several areas of the Rule still requiring clarification:

- **Inter-affiliate Requirements**
  - Inter-affiliate repos play an important role in allowing firms to manage their liquidity and risk efficiently.
  - The Rule requires inter-affiliate repos to be centrally cleared to avoid evasion, bringing into scope a substantial amount of non-client driven transactions.
  - Although certain inter-affiliate transactions can be excluded under an exemption in the Rule, the requirement that the affiliate submits all other client repos to clearing is broad.
- **Mixed Collateral Triparty Repo**
  - Based on current language in the mandate, all repo collateralized by Treasuries at the “outset” needs to be submitted for central clearing.
  - Many triparty repo transactions meant to finance non-Treasury securities contain USTs as an acceptable collateral type to fill any shortfalls in less liquid collateral.
  - Mixed collateral, i.e., U.S. Treasuries in triparty repo, could pull in as much as $1TN in Agency MBS and affect mortgage market pricing.
- **Bank Branch Activity**
  - Under FICC rules, branches of a bank are considered the same legal entity as the parent, requiring the parent entity to clear eligible transactions with clients, sometimes in foreign jurisdictions, which can be complex.
- **Cross-Border and Jurisdictional Application**
  - Questions remain regarding the implication of the Rule for trades conducted in non-U.S. jurisdictions and regulations.

5. Expansion of CCP Access & Membership

a) Direct vs Indirect Membership
b) FICC Sponsored Member and Agent Clearing Services
c) Development of “Done-Away” Clearing
d) Cash Market Trading on Interdealer Broker Platforms

Direct vs Indirect Membership

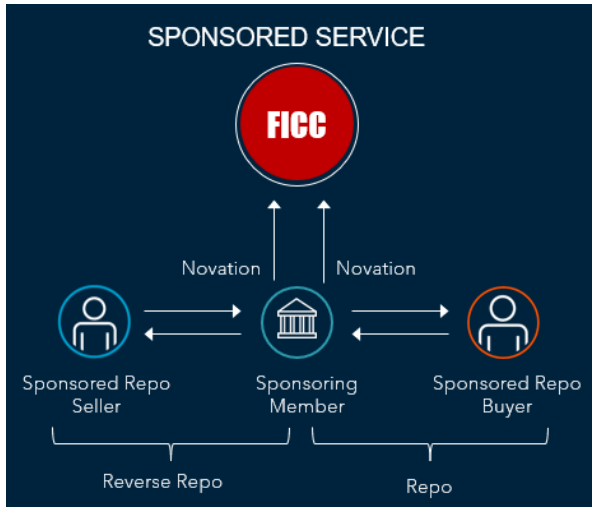
Direct Membership with a CCP

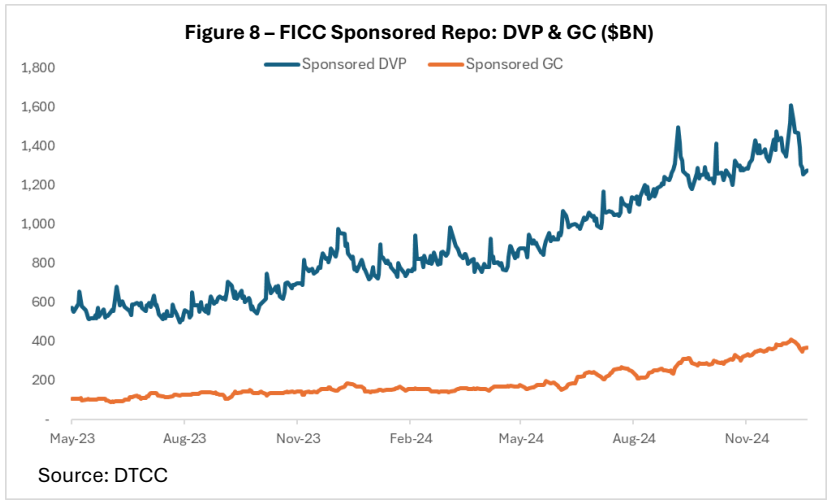
- Market participants need to decide how they will access central clearing, either through a direct or indirect membership with a CCP.
- A **direct membership with a CCP is typically available to regulated entities**, such as banks, broker-dealers, and FCMs.
- Given the requirements of membership, **most direct members are market intermediaries** with a scale of activity that makes direct membership economical. Some non-intermediaries that operate in size also consider direct membership.
- With a direct membership, a market participant:
    - Can self-clear and becomes no longer dependent on a clearing member for access.
    - No longer needs to pay a direct member to clear transactions.
    - May have access to additional sources of funding and liquidity, including brokered funding markets.
- Requirements of membership:
    - The operational and logistical setup required for a direct membership with a CCP is more costly and complex than indirect membership, and it requires considerable start-up time.
        - Potentially includes establishment of a separate legal entity, program compliance, staffing and reporting.
        - Likely introduces additional regulatory requirements.
        - Involves additional financial and capital requirements.
        - Could expose the member to mutualized losses in the event of the CCP's default.

FICC Sponsored Member vs Agent Clearing Service

Overview of Current FICC Clearing Models

- Direct members of FICC can currently submit client activity to clearing through the **sponsored** and **agent clearing services**. The most prevalent model today is the sponsored service.
- In the **sponsored model**, intermediaries facilitate the submission of their client trading activity to FICC under two offerings:
  - Sponsored Delivery-vs-Payment (DVP): offers eligible clients the ability to lend cash or eligible collateral via FICC-cleared DVP repo transactions in U.S. Treasury and Agency Securities on an overnight and term basis, as well as outright purchases and sales of such securities, to be settled on a Delivery-vs-Payment basis.
  - Sponsored General Collateral (GC): offers eligible clients the ability to execute general collateral repo transactions with each other and settle such repo transactions on the triparty repo platform of BNY.
- The **agent clearing model**
  - Provides indirect access to executing firm customers through agent clearing members. Agent clearing members are fully liable for the performance obligations of the trades they clear on behalf of clients.
  - The agent clearing model is similar to a futures commission merchant (FCM) model, in which clients can trade with multiple dealers and not be required to clear through the firm with which they execute.





FICC Sponsored Member vs Agent Clearing Service

Access Model Considerations

	Sponsored Service	Agent Clearing Service
Current Use	• **Over $1.2TN in average daily volumes for 2024.** • Widely used for range of market transactions including levered funds and money market funds.	• **Model is new and predecessor model is not in widespread use; accounting and capital treatment is not yet resolved.** • Higher probability of use for cash market transactions and clients trading across markets, like cash and futures.
Execution Style	• Can be executed both DVP and via triparty. • Supports “done-with” and “done-away” clearing.	• Can be executed DVP, triparty forthcoming. • Supports “done-with” and “done-away” clearing but lends itself towards “done-away.”
Cost	• May provide potential balance sheet netting and capital efficiency (GSIB). • Margin is gross per client.	• Ability to net down margin across clients in non-segregated model. • Potential for clients to margin between CME and FICC products, if approved, if trades are done with the same clearing broker.
FICC Connectivity	• Client has indirect relationship with FICC, which may be preferable for some client types.	• Client has no relationship with FICC, so faces the agent.
Time-to-Market	• Model is already being used widely so infrastructure enhancements and documentation changes are for scalability, not initial product development.	• Although similar to the FCM model, open questions remain on accounting, capital, middleware, pre-trade credit checks, and operational/settlement flows.
Future State	• Potential for additional margin efficiencies with the expected introduction of Sponsored GC Collateral in Lieu model, which reduces the margin and guarantee requirements for many cash provider clients.	• Availability in triparty could increase flexibility of product.

Development of “Done-Away” Clearing

Scalability and Capacity of Clearing

- Currently, nearly all centrally-cleared transactions in the Treasury market are executed on a "done-with" basis, where the intermediary both executes the trade and serves as the clearing agent.
  - Unlike certain derivatives markets, there is no requirement to separate execution and clearing services under the Rule.
- There are questions around whether the “done-with” clearing model has sufficient scalability to implement the Rule without the availability of third-party clearing agents, known as "done-away" clearing.
  - “Done-away” separates clearing from execution, with a third-party agent submitting the client's trade to the CCP.
  - The "done-away“ model would be similar to the “give-up” model in derivatives markets.
- "Done-away" could help addresses some of the efficiency, capacity, and scalability challenges of the Rule, specifically around the costs.
  - The use of a “done-away” clearing agent could result in greater margin efficiency and provide broader access to the market.

> *“The emergence of increased “done-away” clearing in the Treasury market could provide a clearer sense of execution costs and greater competition in trade execution and trade clearing provision, which should support improved market capacity and liquidity.” – Michelle Neal, Former Head of the Markets Group at the New York Fed*[1]

1. Central Clearing in the U.S. Treasury Market: The Why and the How - October 15, 2024

Development of “Done-Away” Clearing

“Done-with” vs “Done-away” clearing

	“Done-with”	“Done-away”
What it is	• Direct member both executes a trade with its client and acts as the client's clearing agent.	• Executing broker would conduct a trade with a client, but a separate clearing broker would act as the client's clearing agent.
Documentation & Administration	• Each dealer must become a Sponsor and execute legal agreements with each client. Street wide legal capacity limited. • Contracts are complex, typically with 3 to 12-month negotiation. • May be difficult for clients to maintain counterparty diversity.	• Single access solution, clients executing legal agreements only with “done-away” agent. • Clients can choose who to transact with and notify “done-away” agent to clear the trade.
Economics	• Clearing costs typically embedded in spread. • Cross product margining limited to dealer-client pairs.	• Fee-based service. • Greater potential to reduce margin costs through netting or cross-product margining by clearing through single clearing agent.
Operational Scalability	• Operational build-out for dealers and clients, including infrastructure and messaging, is costly and time consuming on a bilateral basis.	• “Done-away” agent, not the executing dealer, is responsible for operational build out and costs.

Development of “Done-Away” Clearing

Costs of Clearing

- “Done-away” could distribute some of the additional costs of central clearing across market participants, shifting costs from intermediaries that are capital or liquidity constrained to other participants that are less so.
- Incremental costs associated with CCP operations and risk management include:
  - **Transaction costs**, including clearing and settlement fees for the CCP, clearing members or settlement agents.
  - **Capital costs**, including those associated with the CCP guarantee, margin & default fund, and liquidity commitments.
  - **Funding costs**, associated with posting margin and holding additional liquidity for relevant commitments.

Additional Costs Associated with Cleared Transactions		
Transaction Costs	Capital Costs	Funding Costs
• CCP Transaction Costs • Clearing Agent & Settlement Fees	• CCP Guarantee • Margin & Default Fund • Liquidity Commitments • Trade Exposure	• Margin & Default Fund • Liquidity Commitment Reserves

Development of “Done-Away” Clearing

Open Issues

- **Industrywide documentation standards**
  - Standardized documentation templates for “done-away” clearing will be critical in streamlining negotiations. SIFMA is working to address this via an industry working group.
- **Pre-trade limit check**
  - Because the “done-away” agent is not a party to the executed trade, ”done-away” clearing agents may need to build limit checking systems, either on a pre- or post-trade basis.
  - Additionally, counterparties will need documentation that governs what happens if the “done-away” agent does not agree to clear the transaction.
- **Need for a middleware solution**
  - Middleware allows counterparties to compare and affirm trade terms and route matched trades to the clearinghouse. While it is a critical part of the derivatives clearing workflow, it does not exist for the repo market and needs to be developed.
- **Close out of legal and accounting opinions**
  - Market participants will need to review the capital treatment for some “done-away” clearing services; the legal and accounting treatment for FICC's agent clearing model is yet to be finalized.
- **Porting of positions**
  - Under FICC rules, clients are currently unable to port positions between clearing members; this is an important risk management tool in the cleared derivatives ecosystem and the adoption of a similar structure would make “done-away” clearing more likely.
  - FICC has indicated that it intends to pursue porting in a future rule filing.
- **Fee structure**
  - “Done-away” is likely to be structured as a fee-based service that could be paid by executing dealers or clients.

Cash Market Trading on Interdealer Broker Platforms

Interdealer Broker Platforms and "Done-Away" Clearing

- "Done-away" clearing will be particularly important for interdealer broker (IDB) platforms in the cash market.
- Interdealer broker platforms are typically utilized by dealers as hedging mechanism for transactions with clients. About 50% of the activity on IDB platform is conducted by Principal Trading Firms (PTF), most of whom are not FICC members[1].
  - In these transactions, the IDB acts as an intermediary between the buyer and seller and is the counterparty on both sides of the trade.
  - In the case where one side is an FICC member and the other a non-FICC member, today the IDB submits the transaction on behalf of the non-FICC member.
  - When the two counterparties are not FICC members, the two transactions are matched, netted, and settled by the IDB platform itself with no central clearing.
- In the future, to support their trading activity under the Rule, non-FICC members that trade through an IDB will need to find direct participants to clear transactions to which they are not a counterparty, i.e., "done-away."
  - Access to central clearing for non-CCP members on interdealer platforms requires a scalable "done-away" clearing model; even with that, the costs of clearing for non-CCP member transactions is likely to rise and could affect IDB liquidity.
- The successful development of a "done-away" clearing model is important for the cash market as over 50% of cash purchase and sales are conducted via IDB platforms and are in scope for central clearing.

1. "Principal Trading Firm Activity in Treasury Cash Markets" – Fed Notes, August 4, 2020

6. Expansion to Multiple Clearinghouses

a) New Entrants
b) Considerations for Multiple CCPs

Expansion to Multiple Clearinghouses

New Entrants

- Some organizations have indicated they plan to or are exploring entering the Treasury market as a CCP.
- Currently FICC is the only U.S. Treasury CCP, however additional entities, including CME and ICE, have announced their intention to enter. Entrance will likely require numerous regulatory approvals.
- Delays in the CCP approval process could impact the ability of market participants to successfully onboard and make the necessary infrastructure changes for new CCPs under the current implementation timeline.

CME	ICE
• Announced intention in March 2024 and filed application with SEC in January 2025. • Plan to leverage expertise in derivatives and cash markets. • Indicated support for both “done-with” and “done-away.” • Intends to provide cross margin opportunities across cash, repo, futures, options, and swaps. • Flexible execution style allows for the configuration of positions for margin optimization with select contracts.	• Announced intention in June 2024. • Plan to leverage infrastructure of ICE’s credit default swap clearinghouse, ICE Clear Credit (ICC). • Indicated support for both “done-with” and “done-away.” • Offering that all customer activity will be fully segregated. • Open access to trade execution and post-trade processing platforms. • Have developed a variety of indirect access models.

Expansion to Multiple Clearinghouses

Considerations for Multiple CCPs

Market participants may choose to connect to one or more CCPs, once launched, to support their activity. Infrastructure requirements may vary across CCPs. Domestic and global markets across the derivatives space operate with multiple CCPs, though typically there tends to be concentration in one CCP.

Considerations for a Market with Multiple CCPs	
• **Increased competition:** Multiple CCPs can lead to a more competitive market, potentially resulting in lower costs and better services for market participants. • **Innovation and specialization:** Different CCPs may focus on specific aspects of treasury clearing (e.g., different clearing models), leading to innovation and tailored services for various market participants. • **Increased access:** Different CCPs may offer different modes of access for indirect participants, leading to further expansion and pathways for clearing. • **Risk diversification:** Having multiple CCPs can help distribute risk among different entities, reducing the impact of a potential failure of a single CCP or systemic counterparty.	• **Complexity**: Managing relationships with multiple CCPs can increase complexity for market participants, requiring more resources and expertise to navigate the system. • **Interoperability challenges**: Building seamless interaction between different CCPs can be challenging, potentially leading to operational risks and inefficiencies. • **Netting & settlement complexity**: Multiple CCPs may reduce balance sheet netting and settlement efficiency and increase margin costs. • **Potential for fragmentation**: Multiple CCPs could lead to a fragmented market, with different rules, standards, and practices (implicit race to the bottom).

7. Margin Practices

a) Current Practices & Impact of Central Clearing
b) CCP Margin Efficiencies

Margin Practices

Current Practices and Impact of Central Clearing

- FICC surveys suggest that margin will increase in proportion to the additional volume of cleared activity. The latest survey suggests that **aggregate margin could increase by approximately $58.4BN**[1].
- Under the FICC rules, the clearing member is required to pay margin. Margin is not required to be paid by the customer. Client **margining practices are bilaterally negotiated** between clearing members and their clients.
- According to the Office of Financial Research (OFR), over 70% of bilateral Treasury repo is transacted with zero haircut[2]. This may not reflect portfolio margining.
- Absent a change in current market practice, the cost of intermediation could rise as intermediaries fund client margin. Intermediaries could also face **funding capacity limits**, limiting their ability to support client clearing, especially in periods of volatility.

<u>Open Issues</u>

- Consistency of Client Margining Practices
  - In a report on the cash-futures basis trade, the Market Risk Advisory Committee (MRAC) of the CFTC recently recommended practices to effectively manage the counterparty credit risk of Treasury transactions through appropriate collateralization of repos.
  - The TMPG is examining best practices for managing the risks of Treasury repo transactions. Primary Dealers are expected to implement industry best practices.
  - FINRA rules require the collection of margin on agency MBS transactions by broker dealers; no similar requirement exists for Treasury transactions.
- Double Margining
  - Under SEC rules, most money market funds require a dealer to overcollateralize transactions with typically 102% of the value of the cash provided. In a centrally cleared trade, the dealer must separately post margin to the clearing house, potentially making the transaction "double margined."
- Interpretation of 15c3-3 for the Collection of Margin
  - Questions remain regarding the collection of margin and how it pertains to 15c3-3 requirements.

1. "The U.S. Treasury Clearing Mandate: An Industry Pulse Check," – DTCC
2. "Why Is So Much Repo Not Centrally Cleared?" – Hempel, Kahn, Mann, Paddrik

Margin Practices
CCP Margin Efficiencies

- Agent Clearing Model
  - FICC's Agent Clearing Model allows the Agent Clearing Member to calculate margin for their omnibus account on either a net or gross basis.
- Sponsored GC "Collateral in Lieu" Service
  - FICC is working to develop a new form of its Sponsored GC access model that would allow it to take a targeted lien over the Treasury collateral in an investor's triparty account. The new model is not yet approved.
  - The lien could obviate the need to collect margin with respect to the Cash Investor's side of the trade in most circumstances.
  - It may also obviate the need for the Sponsoring Member to guarantee the performance of the Cash Investor to FICC.
- Margin Efficient Solutions being introduced by other CCPs
  - Other CCPs entering the Treasury space, including ICE and CME, are working to introduce access models that provide more margin efficiency.
  - Cross-margining is being advanced by FICC and CME for Treasury futures and cash transactions.

> *"Counterparty credit risk should be effectively managed. For example, trades should be appropriately collateralized to protect against the risk of losses due to counterparty default. The risk associated with each component of the basis trade should be considered, as should the risk of that trade in the context of a broader portfolio of positions. When managing risk on a portfolio basis, market participants should assess and manage the risk that the correlation between positions in the portfolio could change rapidly."* - CFTC Market Risk Advisory Committee[1]

1. "The Treasury Cash-Futures Basis Trade and Effective Risk Management Practices" - Market Structure Subcommittee of the Market Risk Advisory Committee, CFTC

8. Related Considerations

a) Central Clearing of Federal Reserve Operations

Related Considerations

Central Clearing of Federal Reserve Repo Operations

- The Rule includes an exemption for central banks, including the Federal Reserve.
- However, some Federal Reserve officials have suggested that voluntary participation in central clearing for certain transactions could be considered because it could reduce frictions in the transmission of monetary policy operations.
    - The SRF serves as a backstop in markets to support the effective implementation and transmission of monetary policy and smooth market functioning, lending cash against eligible collateral.
    - Centrally clearing the SRF operations could allow dealers to net down the transactions they conduct with the Federal Reserve against onward transactions with their clients under accounting rules, since both transactions would face the same counterparty.
    - Absent central clearing, engaging in SRF transactions could introduce significant balance sheet costs, widening the spread between transactions conducted with the Fed and onward lending done with clients.

"As the market moves toward broader clearing, I think the FOMC should also consider the benefits of central clearing of the Federal Reserve's own Treasury market operations. The SEC regulation exempts central banks, but in my view, it's typically most efficient and effective for us to operate in the same way as the main market participants. And, as I've discussed previously, central clearing of the SRF could make the facility more effective in providing backstop liquidity to the broad market." – Lorie K. Logan, President and CEO of the Dallas Fed[1]

1. "Opening remarks at panel on Market Monitoring and the Implementation of Monetary Policy" - January 6, 2024

Appendix

Direct vs Indirect Membership

Example: FICC Direct Membership Requirements

Membership Eligibility Requirements

- Financial Responsibility – must have sufficient funds to make anticipated required deposits to the Clearing Fund and Funds-Only Settlement Amounts and to meet all of its other obligations to FICC in a timely manner.
- Operational Capability – must complete network and connectivity testing at FICC standards and fulfill testing and related reporting requirements.

Capital Requirements

- U.S. Bank or Trust Company – CET1 Capital of at least $500MN and must be well capitalized
- Non-U.S. Bank or Trust Company - CET1 Capital of at least $500MN, and must comply with the minimum capital requirements and capital ratios required by its home country regulator, or, if greater, with such minimum capital requirements or capital ratios standards promulgated by the Basel Committee on Banking Supervision and provide an attestation for itself, its parent bank and its parent bank holding company detailing the minimum capital requirements and capital ratios required by their home country regulator.
- Dealer, Futures Commission Merchant or Inter-Dealer Broker – Net worth of at least $25MN and must have an excess net capital of at least $10MN.
- Foreign Person applicant – must satisfy the minimum financial requirements of its home country's regulator and if it is a broker-dealer or bank or trust company, the requirements laid out above.
- Government Securities Issuer – Equity capital of at least $100MN.
- Registered Investment Company – Minimum net assets of $100MN.

Margin Requirements

- Must post an initial clearing fund deposit bason on anticipated volume and nature of activity prior to going live. Once live, the member must meet the required clearing fund amount based on their unsettled positions and the market risk associated with them. This is calculated twice daily.

References

- Bentsen, 2024, “Urgent Action Required: 5 Unresolved Issues in Treasury Central Clearing Rules.” https://www.sifma.org/resources/news/blog/urgent-action-required-5-unresolved-issues-in-treasury-central-clearing-rules/
- Bowman, Huh, Infante, 2024, “Balance-Sheet Netting in U.S. Treasury Markets and Central Clearing.” https://www.federalreserve.gov/econres/feds/balance-sheet-netting-in-us-treasury-markets-and-central-clearing.htm
- CFTC, 2024, “The Treasury Cash-Futures Basis Trade and Effective Risk Management Practices.” https://www.cftc.gov/media/11671/mrac121024_TreasuryCashFuturesBasisTradeReport/download
- DTCC, 2024, “DTCC Survey Identifies Significant Improvements in Understanding and Preparedness Around Expanded U.S. Treasury Clearing.” https://www.dtcc.com/news/2024/july/15/dtcc-survey-significant-improvements-in-industry-preparedness-around-expanded-us-treasury-clearing
- DTCC, 2024, “FICC Treasury Clearing Client Roadmap.” https://www.dtcc.com/-/media/Files/Downloads/Microsites/Treasury-Clearing/FICC-Treasury-Clearing-Client-Impact-Roadmap.pdf
- DTCC, 2024, “The U.S. Treasury Clearing Mandate: An Industry Pulse Check.” https://www.dtcc.com/ustclearing/treasury-clearing-mandate
- Fleming, Keane, 2021, “The Netting Efficiencies of Marketwide Central Clearing.” https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr964.pdf?sc_lang=en
- Gilcoes, Iorio, Monin, Petrasek, 2024, “Quantifying Treasury Cash-Futures Basis Trades.” https://www.federalreserve.gov/econres/notes/feds-notes/quantifying-treasury-cash-futures-basis-trades-20240308.html
- G30 Working Group on Treasury Market Liquidity, 2021, “U.S. Treasury Markets: Steps Toward Increased Resilience.” https://group30.org/images/uploads/publications/G30_U.S._Treasury_Markets-_Steps_Toward_Increased_Resilience__1.pdf
- Harkrader, Puglia, 2020, “Principal Trading Firm Activity in Treasury Cash Markets.” https://www.federalreserve.gov/econres/notes/feds-notes/principal-trading-firm-activity-in-treasury-cash-markets-20200804.html
- Hempel, Kahn, Mann, Paddrik, 2023, “Why Is So Much Repo Not Centrally Cleared?” https://www.financialresearch.gov/briefs/files/OFRBrief_23-01_Why-Is-So-Much-Repo-Not-Centrally-Cleared.pdf
- Inter-Agency Working Group on Treasury Market Surveillance, 2024, “Enhancing the Resilience of the U.S. Treasury Market: 2024 Staff Progress Report.” https://home.treasury.gov/system/files/136/2024-IAWG-report.pdf
- Inter-Agency Working Group on Treasury Market Surveillance, 2021, “Recent Disruptions and Potential Reforms in the U.S. Treasury Market: A Staff Progress Report.” https://home.treasury.gov/system/files/136/IAWG-Treasury-Report.pdf
- Logan, 2024 “Opening remarks at panel on Market Monitoring and the Implementation of Monetary Policy.” https://www.dallasfed.org/news/speeches/logan/2024/lkl240106
- Majiyagbe, Wuerffel, 2024, “The Importance of Safety and Liquidity in the U.S. Treasury Market.” https://www.bny.com/corporate/global/en/insights/liquidity-risk-us-treasury-repo-clearing.html
- Neal, 2024, “Central Clearing in the U.S. Treasury Market: The Why and the How.” https://www.newyorkfed.org/newsevents/speeches/2024/nea241015
- SEC, 2023, “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.” https://www.sec.gov/files/rules/final/2023/34-99149.pdf
- SIFMA, 2025, “File No. S7-23-22: 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.” https://www.sifma.org/wp-content/uploads/2025/01/SIFMA-Extension-Request-US-Treasury-Clearing-Mandate-FINAL-Clean.pdf
- SIFMA, 2025, “U.S. Treasury Central Clearing: Industry Considerations Report FAQs.” https://www.sifma.org/wp-content/uploads/2024/11/FAQs-US-Treasury-Central-Clearing-Industry-Considerations-Report.pdf?utm_campaign=Treasury%20Market%20Structure&utm_medium=email&_hsenc=p2ANqtz-94e_4fLibOp57QsbrvGhMgWYHu0_2cU5cUFQkogCkPbQ4lHPC0Szpak_RUFBTMuotlYa2um-5HkS3lcq_YyyDpyGo_fp-ynhJ866ROFOfSqC1UBb4&_hsmi=343868370&utm_content=343868370&utm_source=hs_automation
- SIFMA & EY, 2024, “U.S. Treasury Central Clearing: Industry Considerations Report.” https://www.sifma.org/wp-content/uploads/2024/11/USTC-ConsiderationsReport_SIFMA-EY.pdf
- TMPG, 2018, “White Paper on Clearing and Settlement in the Secondary Market for U.S. Treasury Securities.” https://www.newyorkfed.org/medialibrary/Microsites/tmpg/files/CS_FinalPaper_071119.pdf
- Wuerffel, 2023, “Treasury Clearing: Reassembly Required.” https://www.bny.com/content/dam/bnymellon/documents/pdf/insights/central-clearing-us-treasury-market-reassembly-required.pdf