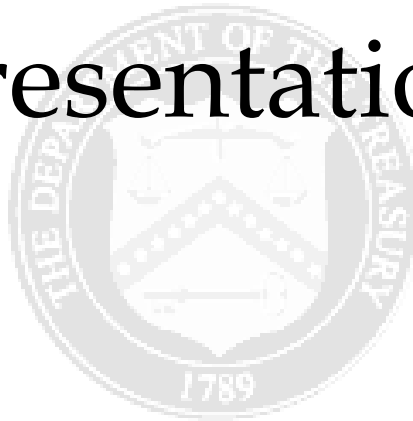


Treasury Presentation to TBAC



Office of Debt Management



Fiscal Year 2023 Q4 Report

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*All sources are from Treasury unless otherwise specified

Section I: Executive Summary



Highlights of Treasury's November 2023 Quarterly Refunding Presentation to the Treasury Borrowing Advisory Committee (TBAC)

Receipts and Outlays through Q4 FY2023

	\$ 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 Q4 FY2023	\$4,439	-\$457	-9%	16.5%	-2.8%
Total Outlays thru Q4 FY2023	\$6,134	-\$137	-2%	22.8%	-2.0%

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

Treasury OFF Near Term Fiscal Projections	Net Privately Held Marketable Borrowing (\$ billion)	Assumed End-of-Quarter Cash Balance (\$ billion)
Q1 FY2024	776	750 (Dec)
Q2 FY2024	816	750 (Mar)

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

Fiscal Year	Primary Dealers, Median October 2023 (\$ billion)	OMB MSR July 2023 (\$ billion)	CBO Budget, June 2023 (\$ billion)
2024	2,500	2,735	2,257
2025	1,950	1,849	1,763
2026	1,898	1,696	1,676

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

Uncertainty regarding funding needs in FY2024 to FY2026 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.

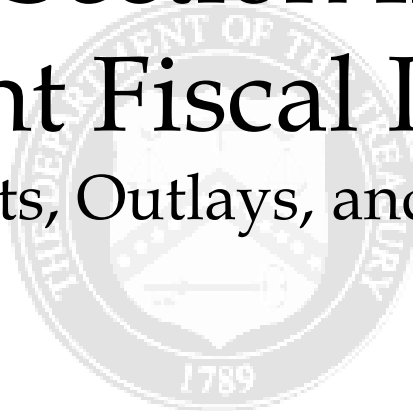
Latest Market Expectations for Treasury Financing in October 2023:

- Primary dealers generally expected increases in coupon auction sizes consistent with the changes that were made at the August refunding, though some expected the pace of long-end increases to moderate. In October, dealers boosted their aggregate median estimates for privately-held net marketable borrowing by a cumulative \$622 billion for the FY24-FY25 period, relative to their July estimates for the same 2 years.
- Given the forecasted financing gap over FY2024 and beyond, all dealers noted that both bill and coupon auction sizes would need to be increased to address near term financing gaps. Several dealers expect bill share to temporarily exceed TBAC's recommended 15-20% range but did not express any concerns given the current demand for T-bills.
- Most dealers expected a \$1 billion increase to the 5-year TIPS reopening in December, consistent with the increase to the October new issue, and a \$1 billion increase to the 10-year new issue in January.

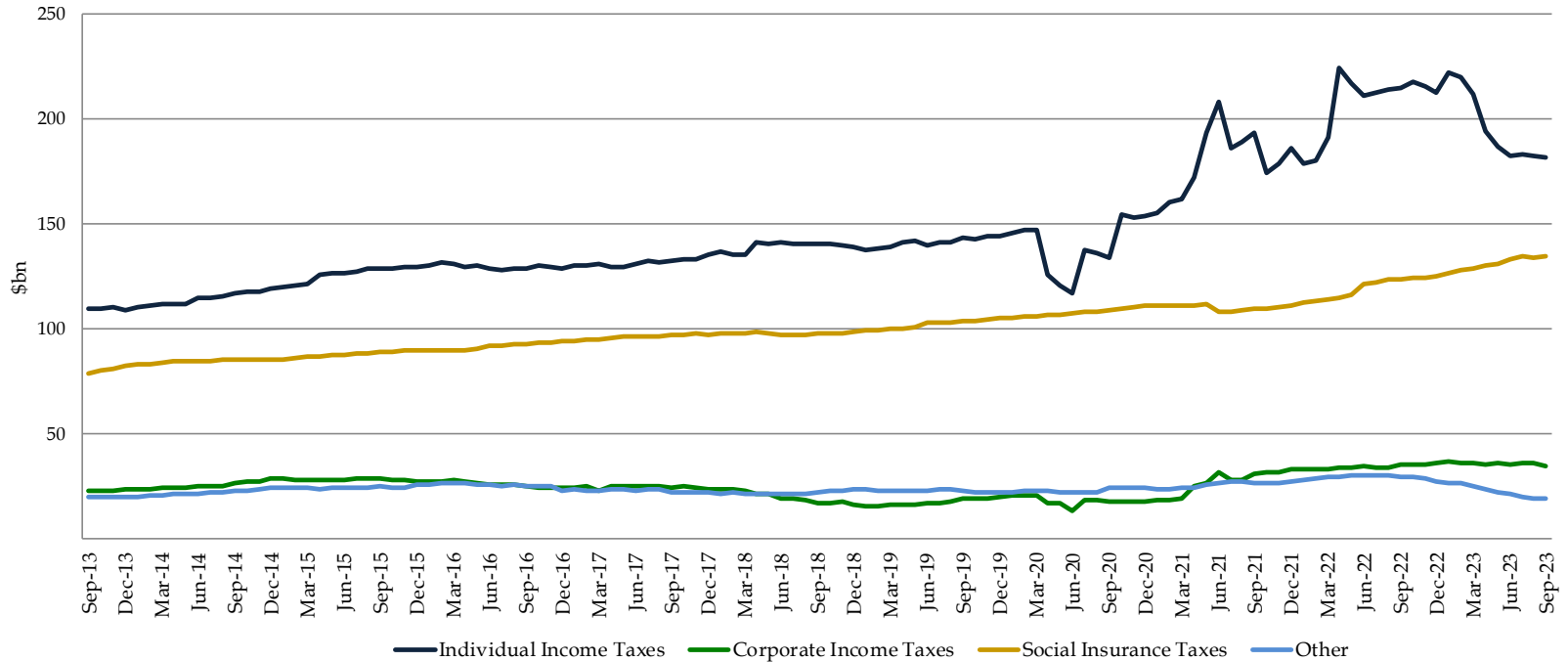
Section II:

Recent Fiscal Results

Receipts, Outlays, and Deficits



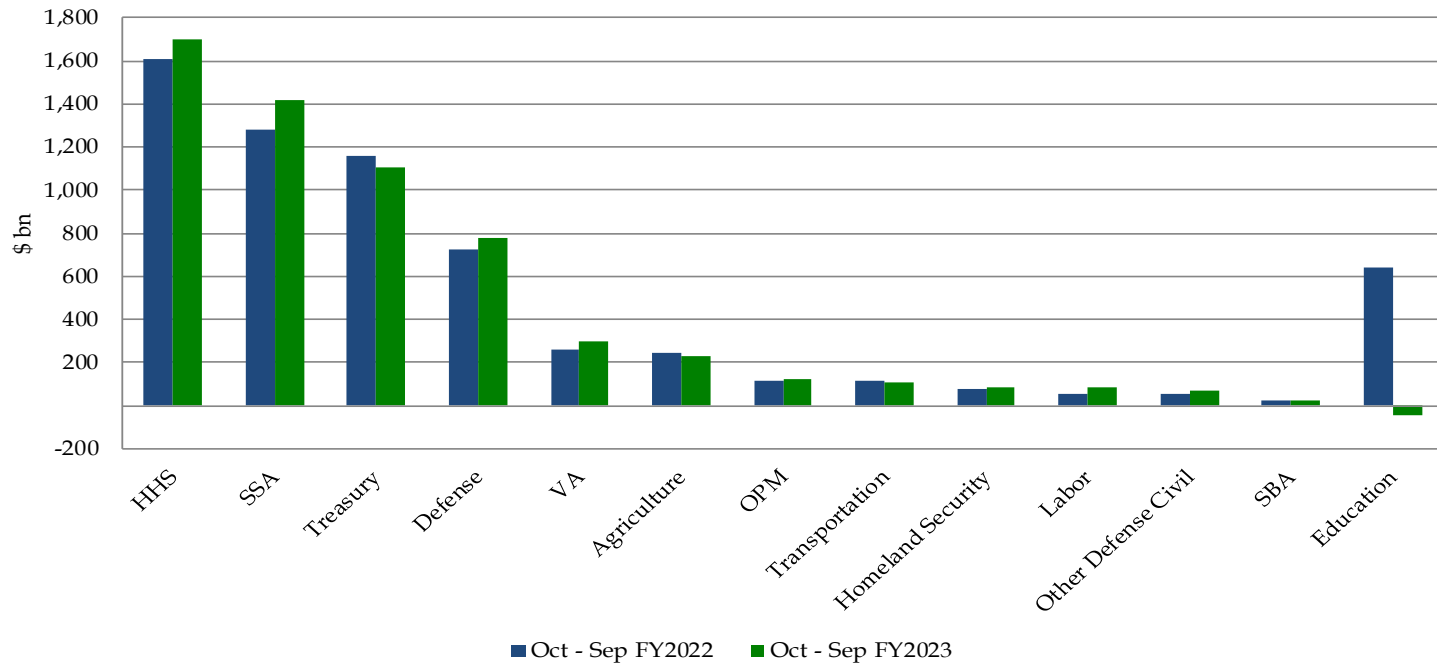
Monthly Receipt Levels (12-Month Moving Average)



Notable Receipt Category	YoY change thru Q4 FY23 (\$ billion)	YoY change thru Q4 FY23 (%)	Comments
Non-withheld and SECA taxes	-\$293	-24%	Mainly due to 40% lower tax receipts in the April-May period than last year's record level.
Individual refunds	-\$127	-52%	A decrease in cash due to elevated IRS processing of refunds over the fiscal year, including inventory.
Federal Reserve earnings	-\$106	-99%	Remittances have decreased year-over-year as administered rates moved higher.
Withheld & FICA taxes (calendar adjusted)	+\$119	+4%	Due to higher wages and employment, partially offset by December's lower bonuses.

Tax receipts for Q4 FY2020 reflect the adjustment of April and June 2020 tax deadlines to July 15th, 2020. 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.

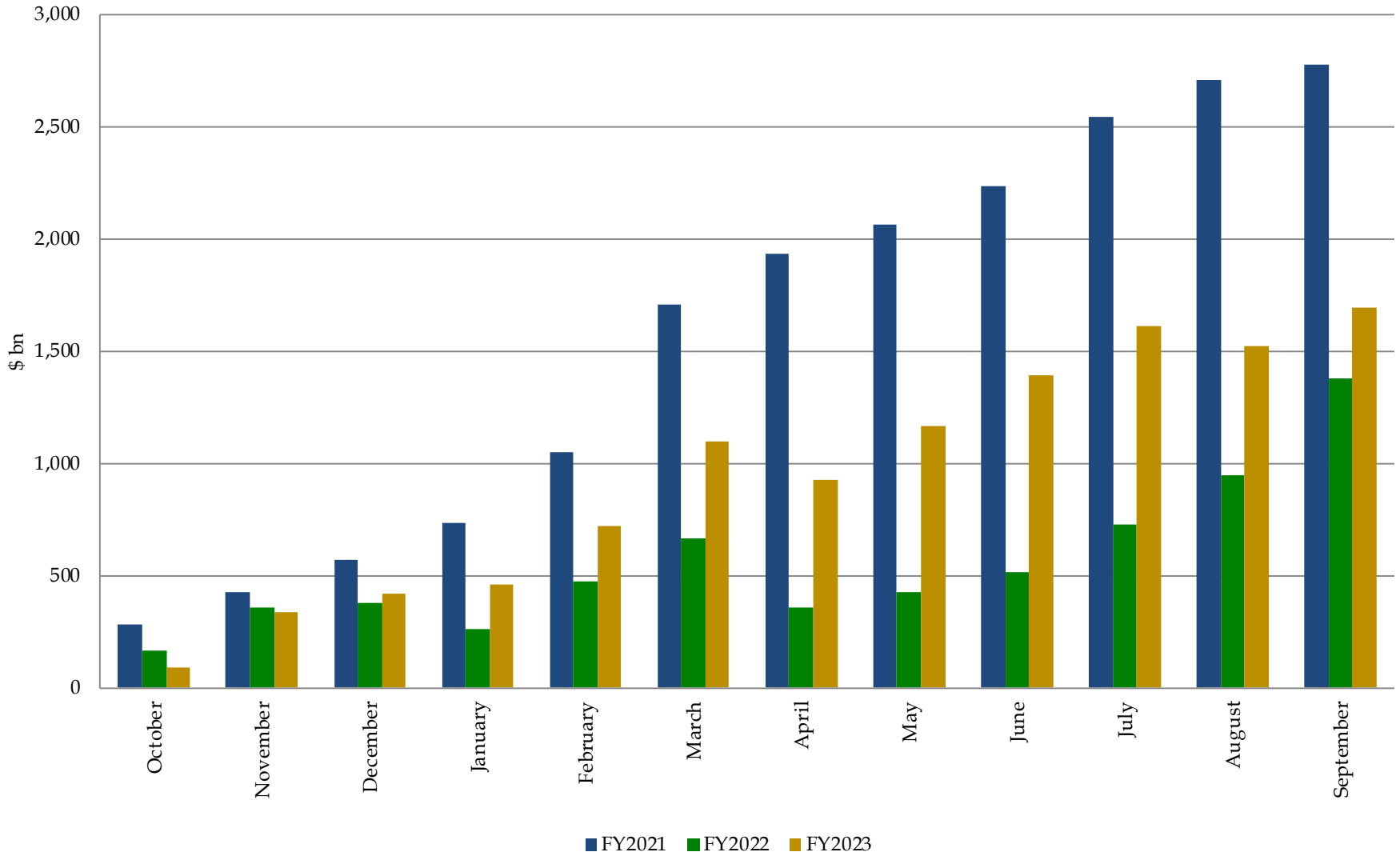
Largest Outlays



Notable Outlay Category	YoY change thru Q4 FY23 (\$ billion)	YoY change thru Q4 FY23 (%)	Comments
Social Security Administration (calendar adjusted)	+\$139	+11%	Primarily due to increases from cost-of-living adjustments and increased number of beneficiaries.
Health and Human Services (calendar adjusted)	+\$96	+6%	Due to higher Medicare and Medicaid outlays.
Department of Defense (calendar adjusted)	+\$53	+7%	Due to increased spending for military personnel, operations, maintenance and procurement.
Department of Treasury	-\$55	-5%	Interest on the Public Debt was \$162 billion higher (23%); while outlays for COVID-19 relief grants were \$105 billion lower (-99%) and Tax Credits were \$97 billion (-28%) lower compared to last year.
Department of Education	-\$680	-106%	Due to several Federal Direct Student Loan program modifications.
Other (not in the chart above)	+\$274	+195%	Federal Deposit Insurance Corporation outlays are \$101 billion higher. FCC spectrum auction receipts (negative outlays) were booked in January 2022 (\$81 billion).

Outlays in the chart above are on 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 October 2023

	<u>CY2023</u>	<u>CY2024</u>	<u>CY2025</u>
	<u>% Change from Q4 to Q4</u>		
GDP			
<i>Real</i>	2.5	0.5	na
<i>Nominal</i>	5.2	2.9	na
Inflation			
<i>CPI Headline</i>	3.4	2.5	na
<i>CPI Core</i>	4.0	2.7	na
	<u>Fourth Quarter Levels</u>		
Unemployment Rate (%)	3.8	4.5	na
	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>
Deficits (\$bil)	\$1,800	\$1,850	\$1,800

CBO Estimates February 2023

	<u>CY2023</u>	<u>CY2024</u>	<u>CY2025</u>
	<u>% Change from Q4 to Q4</u>		
GDP			
<i>Real</i>	0.1	2.5	2.6
<i>Nominal</i>	3.1	4.9	4.8
Inflation			
<i>CPI Headline</i>	4.0	2.4	2.1
	<u>Fourth Quarter Levels</u>		
Unemployment Rate (%)	5.1	4.8	4.6
	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>
Deficits (\$bil)	\$1,501	\$1,649	\$1,586

OMB Estimates July 2023

	<u>CY2023</u>	<u>CY2024</u>	<u>CY2025</u>
	<u>% Change from Q4 to Q4</u>		
GDP			
<i>Real</i>	0.4	1.8	2.4
<i>Nominal</i>	3.5	4.1	4.5
Inflation			
<i>CPI Headline</i>	3.3	2.5	2.3
	<u>Fourth Quarter Levels</u>		
Unemployment Rate (%)	4.2	4.3	4.1
	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>
Deficits (\$bil)	\$1,877	\$1,698	\$1,561

CBO Estimates July 2023

	<u>CY2023</u>	<u>CY2024</u>	<u>CY2025</u>
	<u>% Change from Q4 to Q4</u>		
GDP			
<i>Real</i>	0.9	1.5	2.4
<i>Nominal</i>	3.8	3.9	4.5
Inflation			
<i>CPI Headline</i>	3.3	2.7	2.2
	<u>Fourth Quarter Levels</u>		
Unemployment Rate (%)	4.1	4.7	4.5

Note: Economic assumptions for July 2023 OMB and Feb 2023 CBO forecasts were established in June 2023 and December 2022, respectively. Economic assumptions from July 2023 CBO forecasts were not reflected in the most recent May CBO budget updates. [Budget and Economic Data](#) | [Congressional Budget Office \(cbo.gov\)](#)

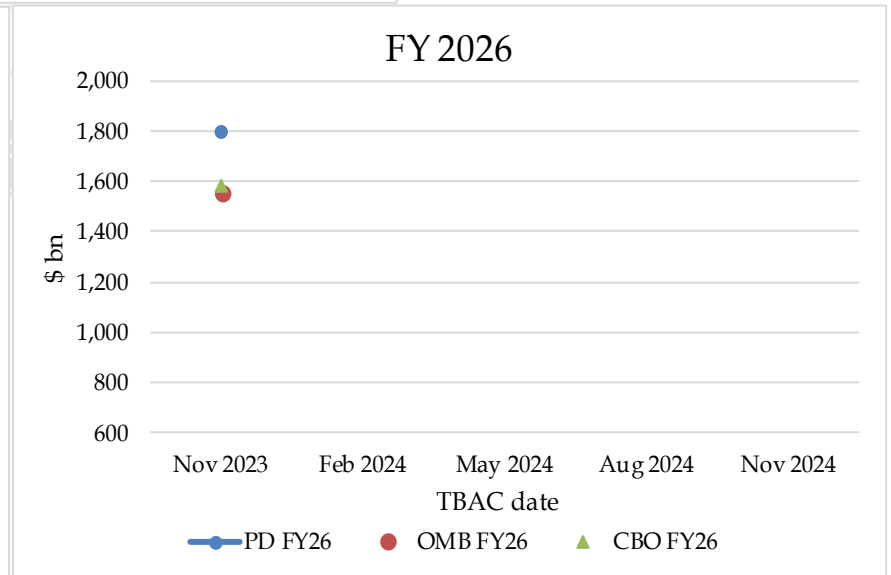
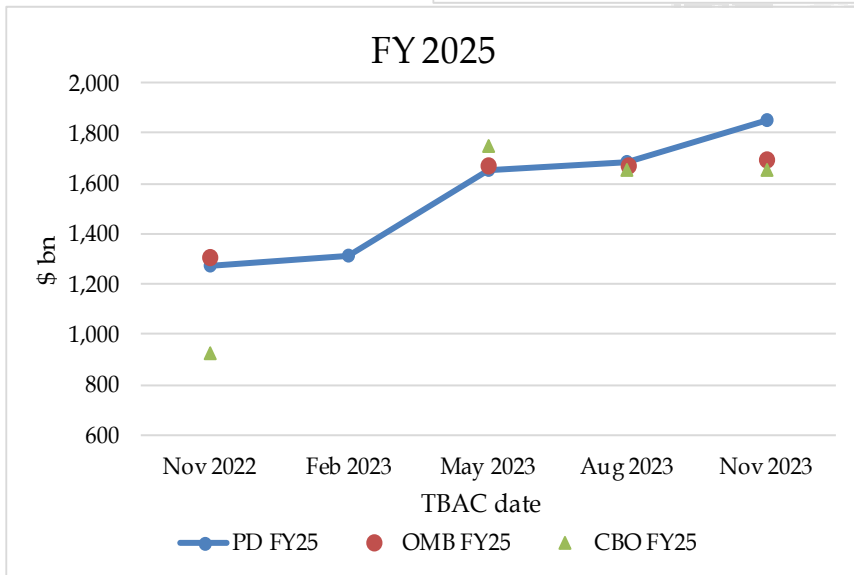
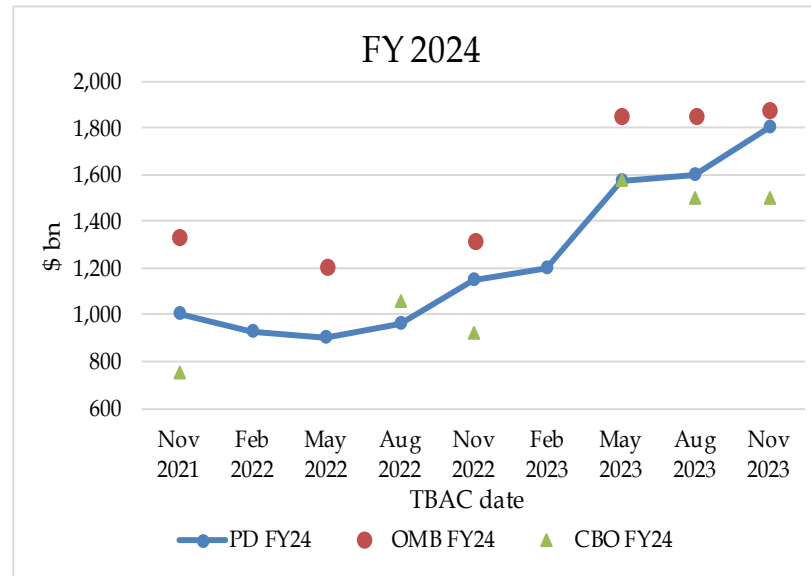
Recent Deficit Forecasts

- Primary dealers increased their deficit estimates in October relative to estimates they provided in July.
- Dealers generally suggested that risks were asymmetric to the upside, i.e., risks for higher deficits and noted a high degree of uncertainty around their estimates.
- The latest OMB and CBO estimates in the table below are provided for reference.

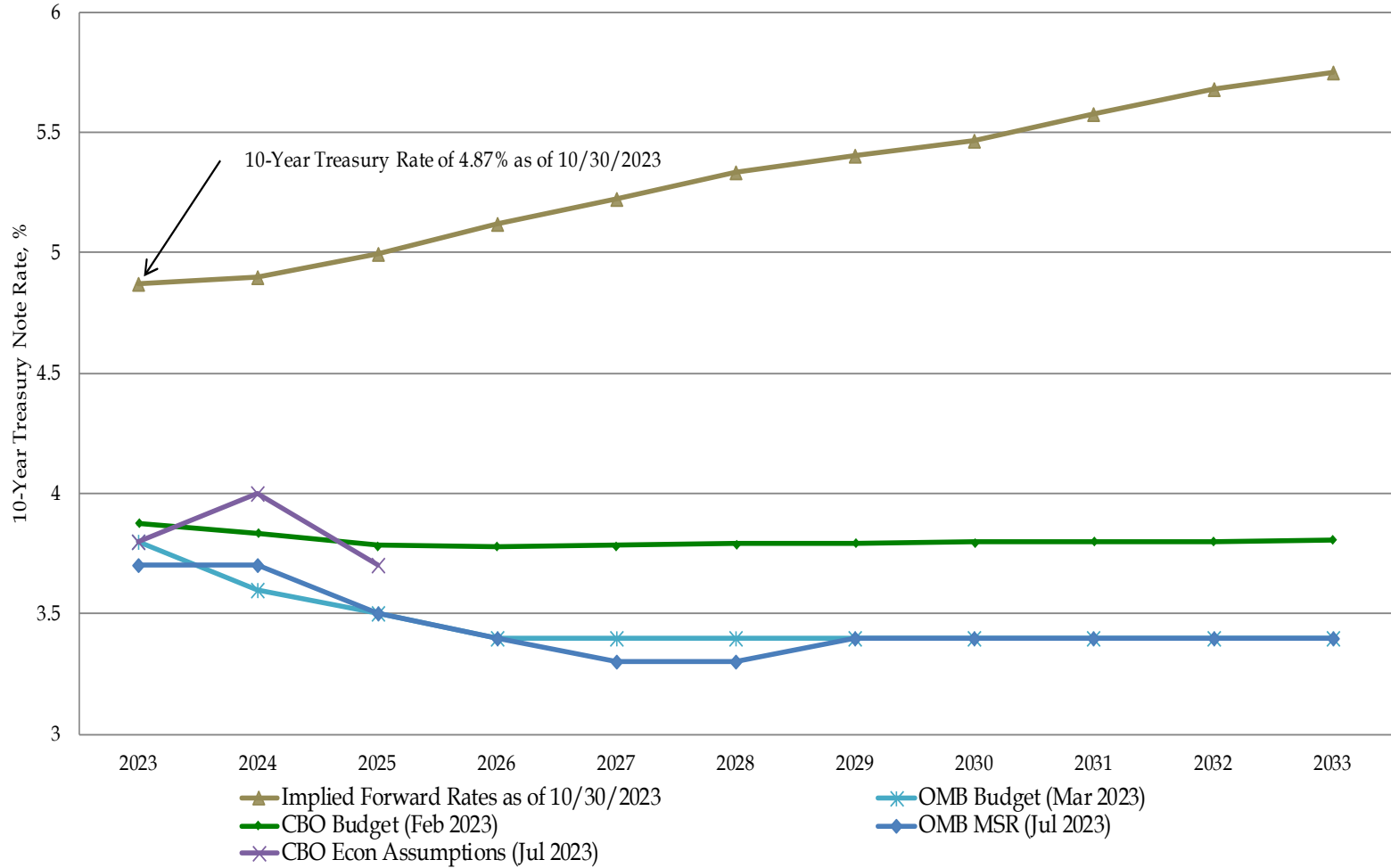
Deficit Estimates (\$ billion)	PD 25th Percentile	Primary Dealers (Median)	PD 75th Percentile	Change from Prior Quarter (Median)	OMB	CBO
FY2024	1,688	1,800	1,807	200	1,877	1,501
FY2025	1,725	1,850	1,900	162	1,698	1,649
FY2026	1,728	1,800	1,950	na	1,561	1,586
As of date	Oct-23	Oct-23	Oct-23		Jul-23	Jun-23

- OMB projections are using estimates are from Table S-1 of “Mid-Session Review, Budget of The U.S. Government,” July 2023.
- CBO projections are using estimates are from Table 1 of “How the Fiscal Responsibility Act of 2023 Affects CBO’s Projections of Federal Debt ,” June 2023.


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



Interest Rate Assumptions: 10-Year Treasury Note



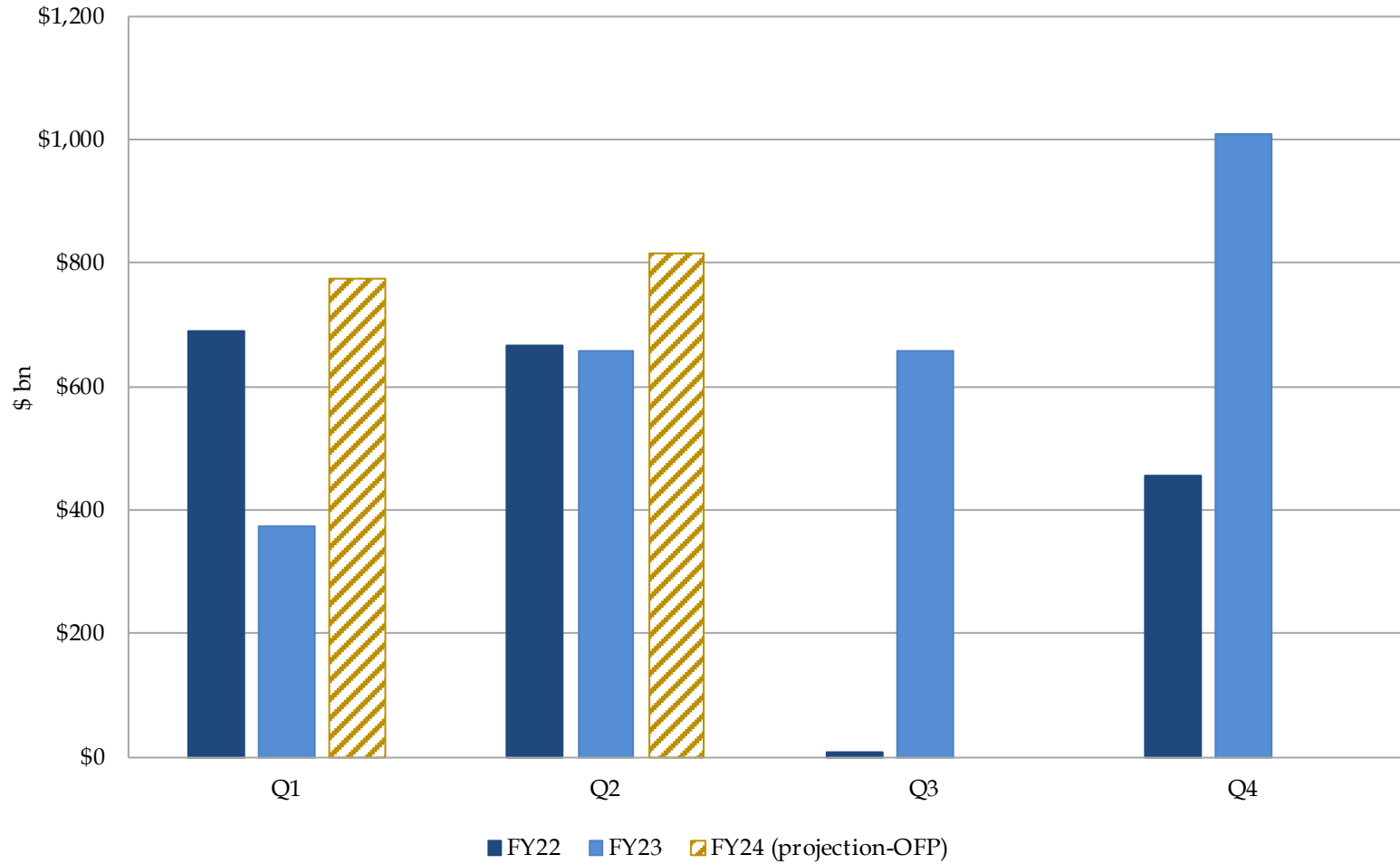
Section IV:
Estimated Borrowing Needs and
Financing Implications



Assumptions for Financing Section (pages 16 to 20)

- Portfolio and SOMA holdings as of 9/30/2023, 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 October 2023, while using total bills outstanding of ~\$5.3 trillion, 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 9/30/2023, 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 net privately-held 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.

Privately-Held Net Marketable Borrowing Outlook



Implied Bill Funding for Next Two Quarters Based on Recent Borrowing Estimates

Sources of Privately-Held Financing in FY24 Q1

October - December 2023	
Assuming Constant Coupon Issuance Sizes*	
Treasury Announced Net Marketable Borrowing**	776
Net Coupon Issuance	316
Implied Change in Bills	460

Sources of Privately-Held Financing in FY24 Q2

January - March 2024	
Assuming Constant Coupon Issuance Sizes*	
Treasury Announced Net Marketable Borrowing**	816
Net Coupon Issuance	230
Implied Change in Bills	586

Security	October - December 2023 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance			Security	January - March 2024 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net		Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	74	76	(2)	74	76	(2)	2-Year FRN	50	70	(20)	124	146	(22)
2-Year	150	174	(24)	150	174	(24)	2-Year	153	162	(9)	303	336	(33)
3-Year	138	131	7	138	131	7	3-Year	138	159	(21)	276	291	(15)
5-Year	153	73	80	153	73	80	5-Year	156	79	77	309	152	157
7-Year	113	73	40	113	73	40	7-Year	114	71	43	227	145	82
10-Year	108	55	53	108	55	53	10-Year	108	47	61	216	102	114
20-Year	42	0	42	42	0	42	20-Year	42	0	42	84	0	84
30-Year	63	0	63	63	0	63	30-Year	63	0	63	126	0	126
5-Year TIPS	42	0	42	42	0	42	5-Year TIPS	0	0	0	42	0	42
10-Year TIPS	15	0	15	15	0	15	10-Year TIPS	32	47	(15)	47	47	0
30-Year TIPS	0	0	0	0	0	0	30-Year TIPS	9	0	9	9	0	9
Coupon Subtotal	898	582	316	898	582	316	Coupon Subtotal	865	635	230	1,763	1,218	545

* Keeping announced issuance sizes and patterns constant for nominal coupons, TIPS, and FRNs.

** Assumes end-of-December 2023 and end-of-March 2024 cash balances of \$750 billion and \$750 billion respectively versus end-of-September cash balance of \$657 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>

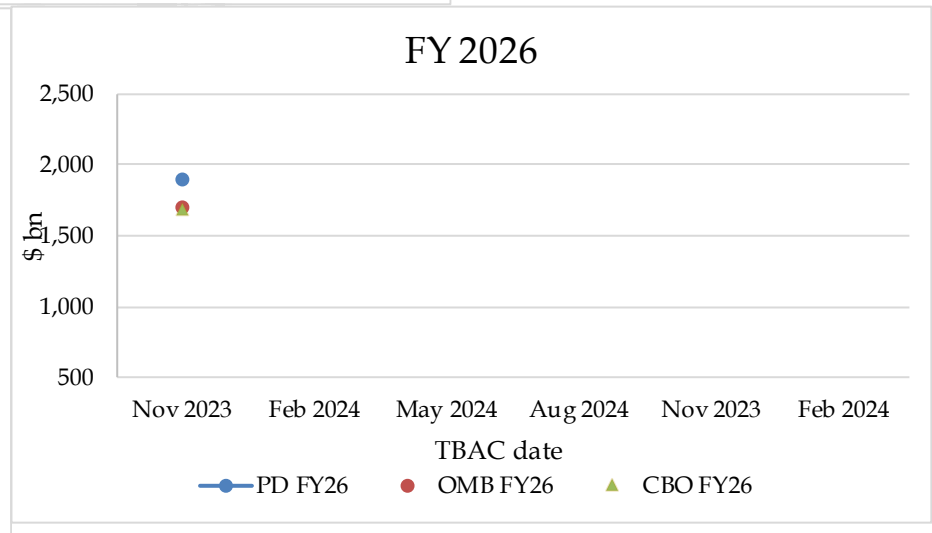
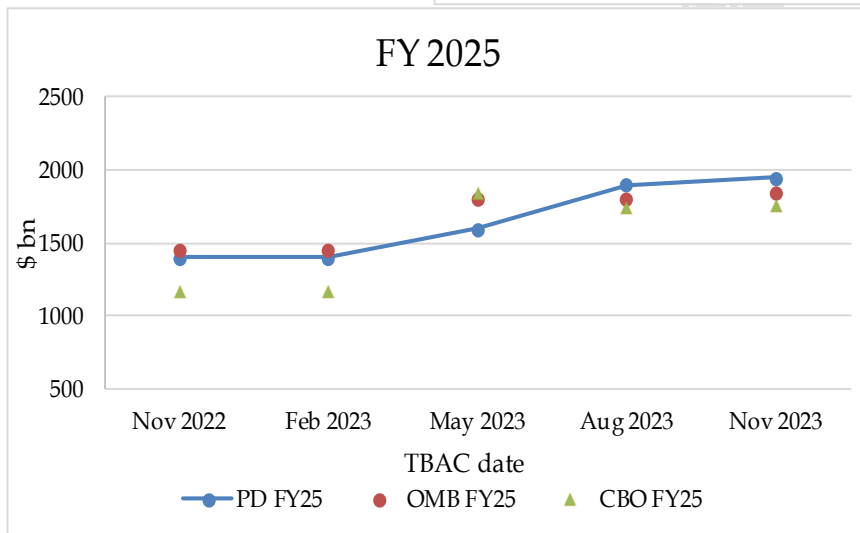
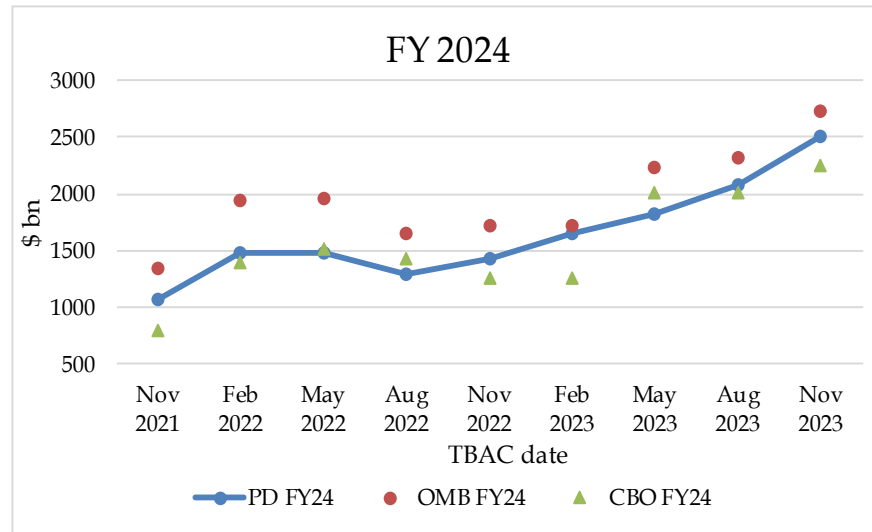
Longer-Term Privately-Held Net Marketable Borrowing Estimates and SOMA Redemption Assumptions

FY 2024-2026 Deficits and Privately-Held Net Marketable Borrowing Estimates, in \$ billions

	Primary Dealer			OMB	CBO
	25th	Median	75th		
FY 2024 Deficit	1,688	1,800	1,807	1,877	1,501
FY 2025 Deficit	1,725	1,850	1,900	1,698	1,649
FY 2026 Deficit	1,728	1,800	1,950	1,561	1,586
FY 2024 SOMA Redemption	540	630	720		
FY 2025 SOMA Redemption	0	0	180		
FY 2026 SOMA Redemption	0	0	0		
FY 2024 Privately-Held Net Marketable Borrowing*	2,305	2,500	2,560	2,735	2,257
FY 2025 Privately-Held Net Marketable Borrowing*	1,815	1,950	2,050	1,849	1,763
FY 2026 Privately-Held Net Marketable Borrowing*	1,750	1,898	1,994	1,696	1,676
Estimates as of:		Oct-23		Jul-23	Jun-23

- *All privately-held net marketable borrowing estimates of are “normalized” using:
 - 1) the median Primary Dealer’s estimates for SOMA redemptions, and
 - 2) PD’s median end of fiscal year 2024 cash balance of \$733 billion, held constant in out years.
- OMB projections are using estimates are from Table S-1 of “Mid-Session Review, Budget of The U.S. Government,” July 2023. Adjusted to reflect the latest assumptions about student loans.
- CBO projections are using estimates are from Table 1 & 2 of “How the Fiscal Responsibility Act of 2023 Affects CBO’s Projections of Federal Debt ,” June 2023.

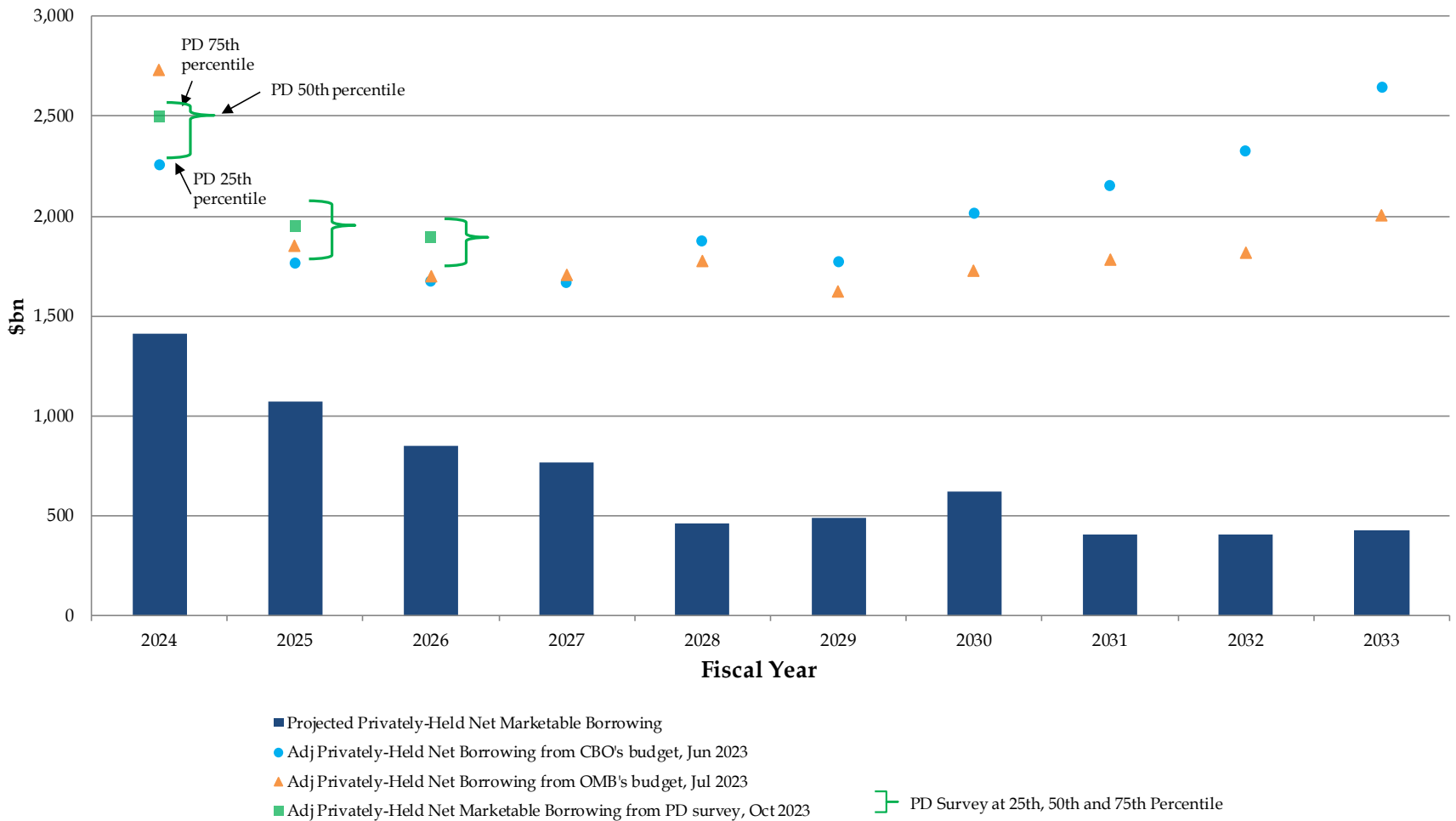
Evolution of Median Primary Dealer, OMB, and CBO Privately-Held Net Marketable Borrowing Estimates*



* 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 borrowings are normalized with the same cash balance changes. See slide 18 for details.

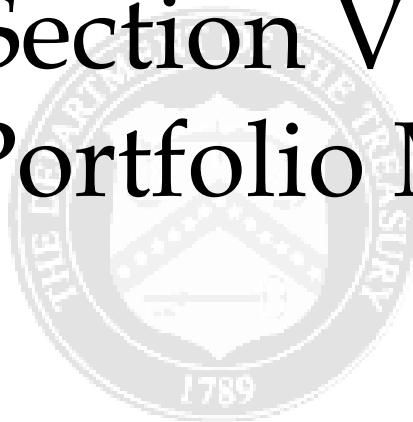
Projected Privately-Held Net Marketable Borrowing

Assuming Private Coupon Issuance & Total Bills Outstanding Remain Constant as of 10/31/2023*



*Treasury's latest primary dealer survey median/interquartile range estimates can be found on page 18. OMB's borrowing projections are from Table S-1 of "Mid-Session Review, Budget of The U.S. Government," July 2023. Adjusted to reflect the latest assumptions about student loans. CBO's borrowing projections are using estimates from Table 2 of "How the Fiscal Responsibility Act of 2023 Affects CBO's Projections of Federal Debt," June 2023. OMB and CBO borrowing estimates from FY24 to FY26 are normalized to privately-held net borrowing after adding PD survey median SOMA redemption assumptions for FY24/25/26. In addition, all privately-held net borrowing estimates are normalized with PD's FY24 median ending cash balance of \$733 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 are meant for illustrative purposes only. The projections contained in these charts should not be interpreted as representing any future policy decisions regarding Treasury financing.

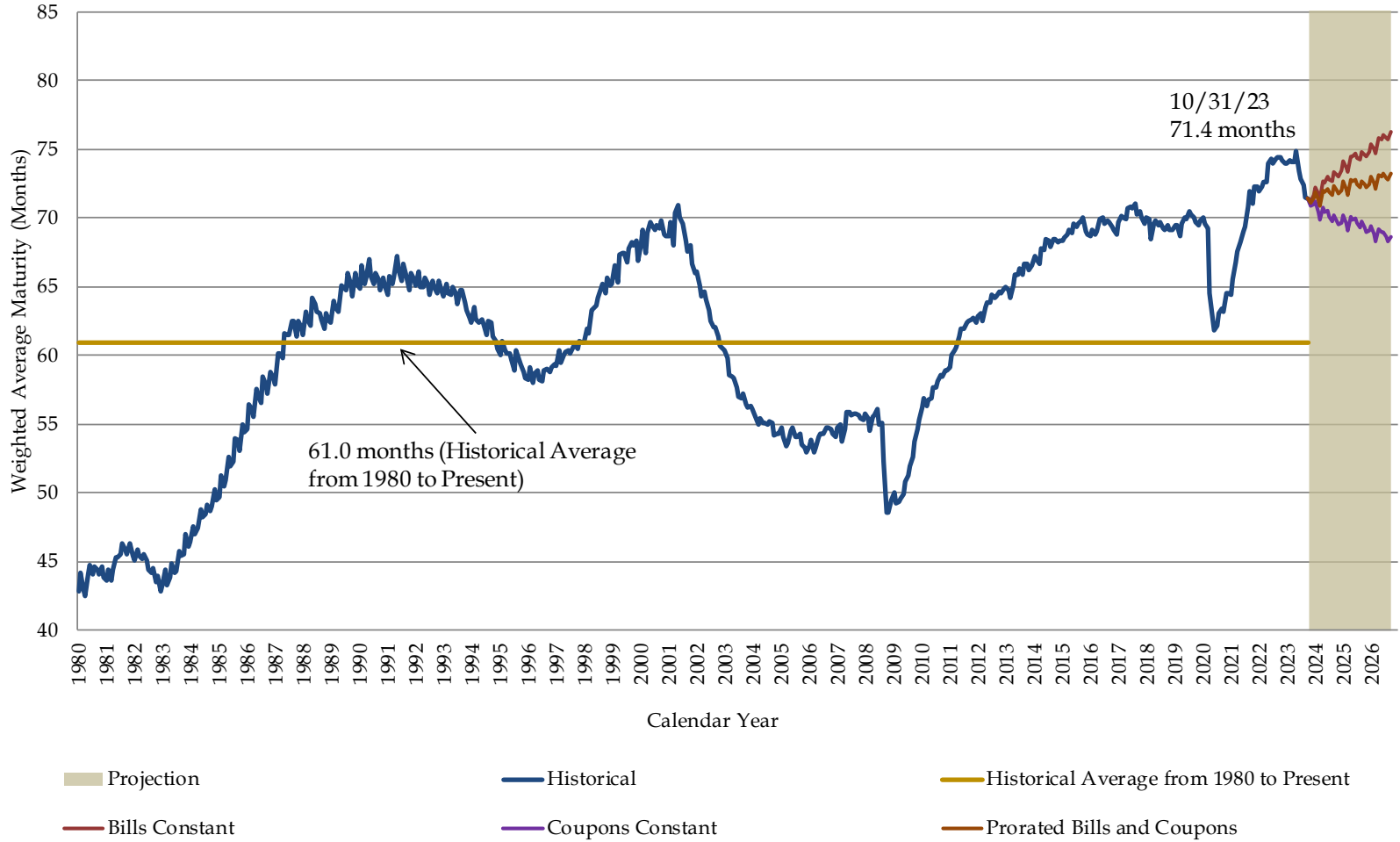
Projections illustrate how various portfolio metrics could evolve under three hypothetical financing scenarios. The scenarios were chosen to illustrate a potential range of portfolio metric outcomes based on hypothetical issuance choices.

The scenarios are:

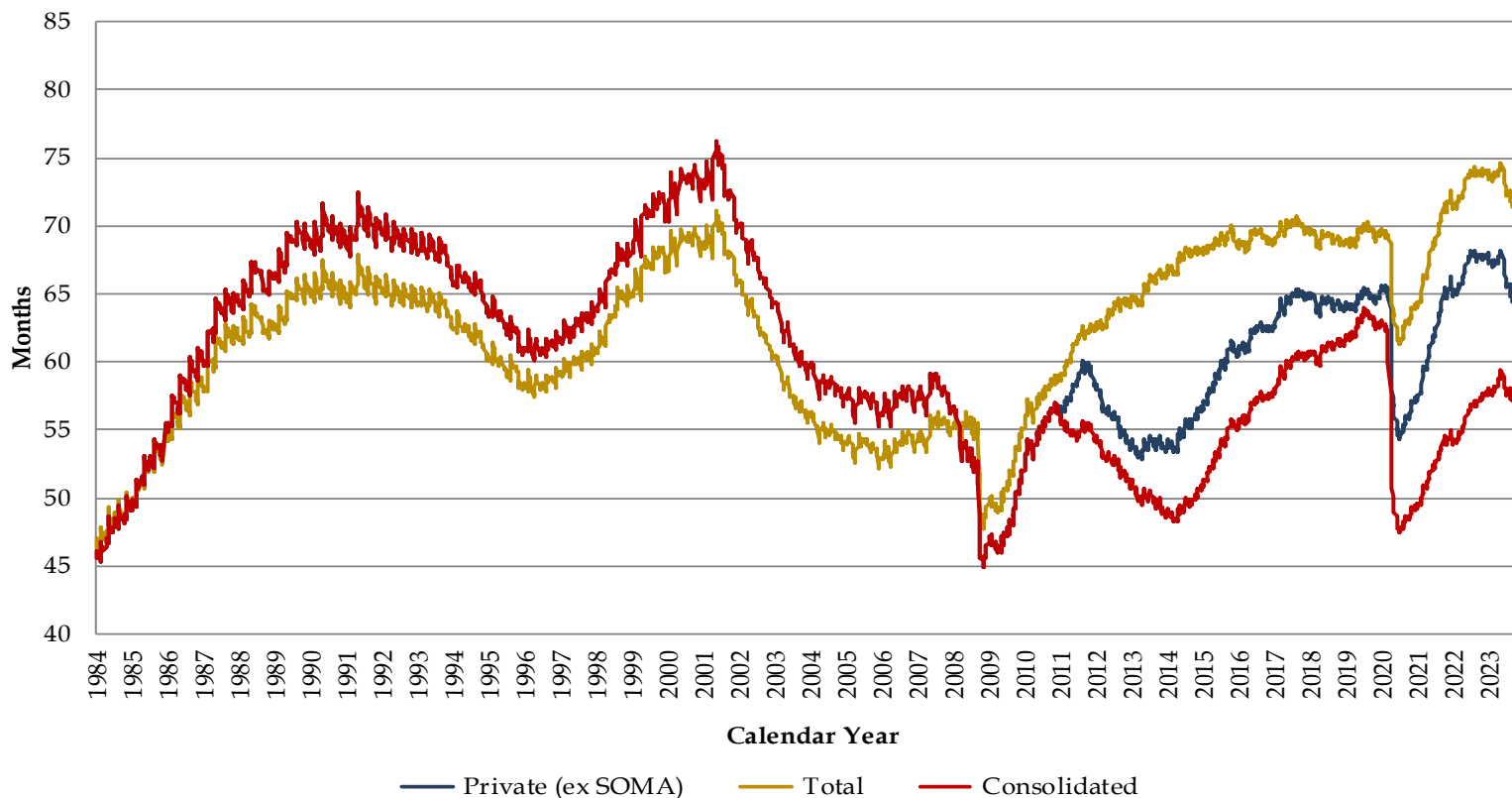
- 1) ***“Coupons Constant”***: Treasury maintains **coupon, FRN, and TIPS auction sizes constant** as of October 2023 and addresses any changes in financing needs by only increasing or decreasing T-bill auction sizes;
- 2) ***“Bills Constant”***: Treasury maintains **T-bills aggregate supply constant** at \$5.5 trillion as of 10/31/2023 and increases or decreases coupon, FRN, and TIPS auction sizes in response to financing needs in a manner that maintains current issuance proportions going forward;
- 3) ***“Prorated Bills and Coupons”***: Treasury maintains **T-bills share constant** at 21% as of 10/31/2023 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 FY24, FY25 & FY26 (see page 18).

Weighted Average Maturity of Marketable Debt Outstanding



Consolidated WANRR Calculation*

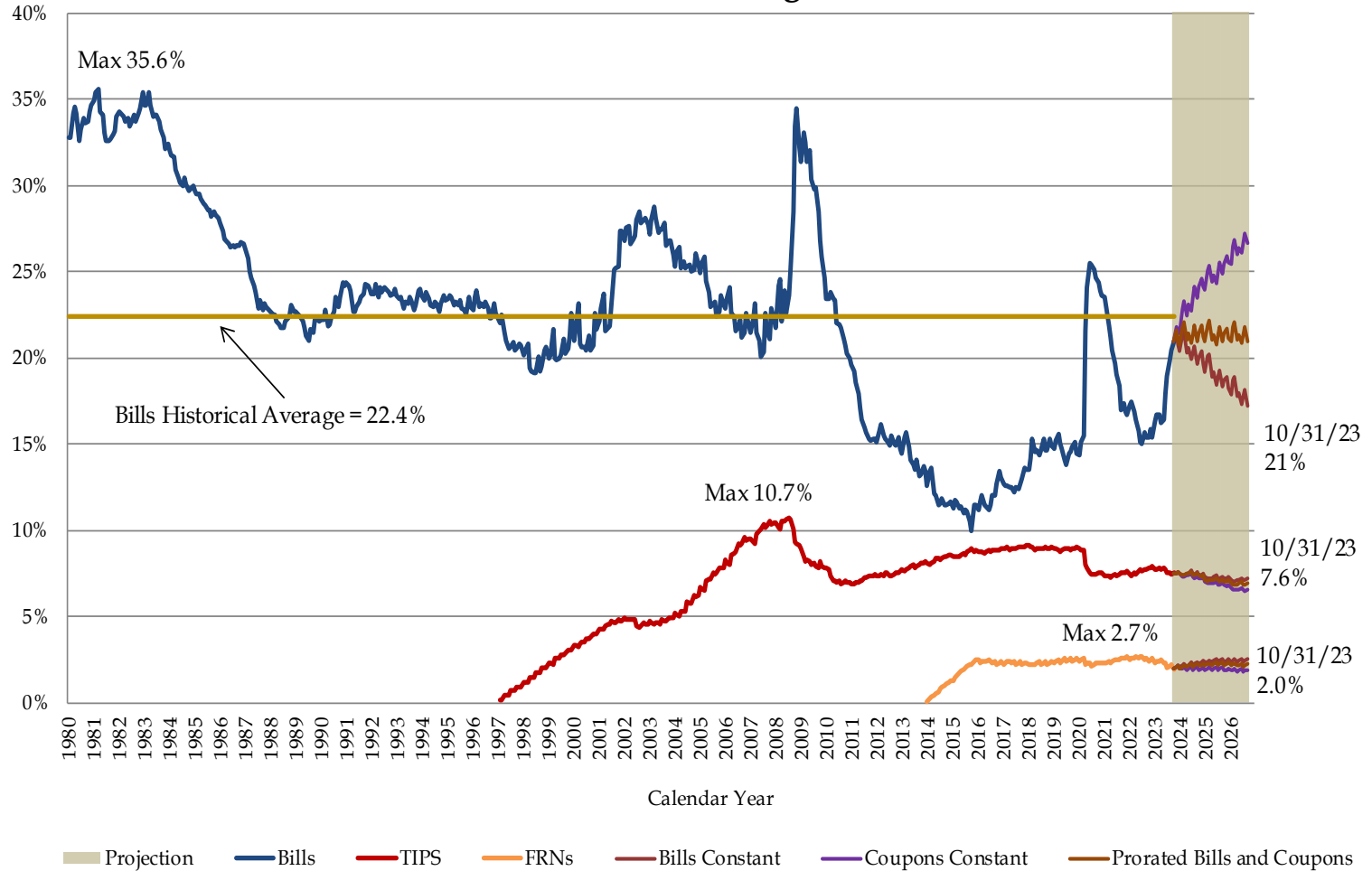


* Weighted Average Next Rate Reset (WANRR) is a “Weighted Average Maturity” metric that attempts to adjust for the floating rate aspect of some Treasury debt. The WANRR is the average time until the outstanding debt’s interest rate is set to a new interest rate. For bills and fixed rate notes and bonds, the next rate reset is equal to the maturity date.

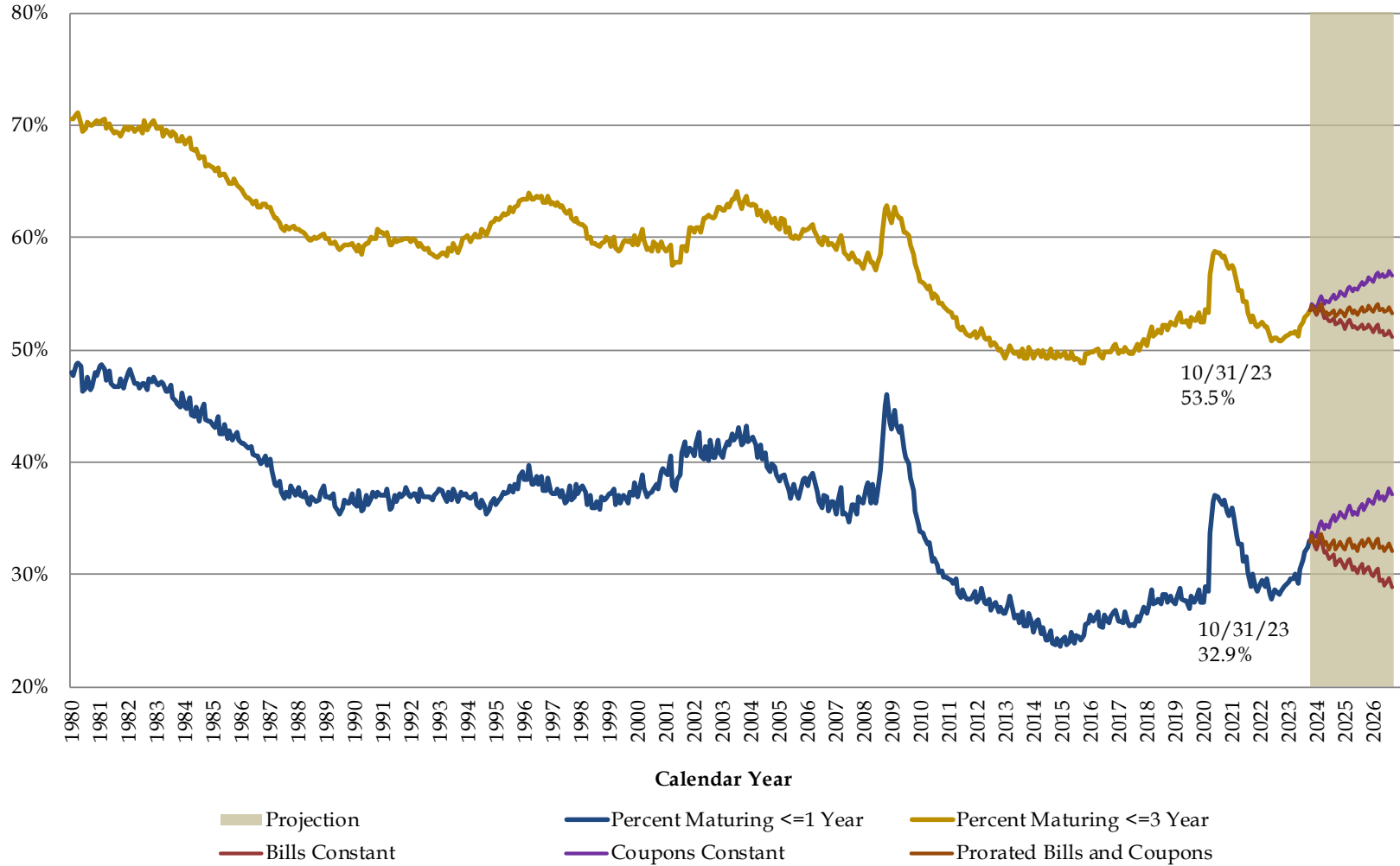
In contrast, for floating rate obligations, the time between the next rate reset date or maturity date is examined and the shorter period is used in the calculation.

The consolidated outstanding debt is defined as the private amount plus SOMA Treasury securities holdings less currency amount. In this calculation, SOMA Treasury holdings greater than the level of currency outstanding is treated as if it is a daily rate reset.

Bills, TIPS & FRNs Outstanding as a Percent of Marketable Debt Outstanding

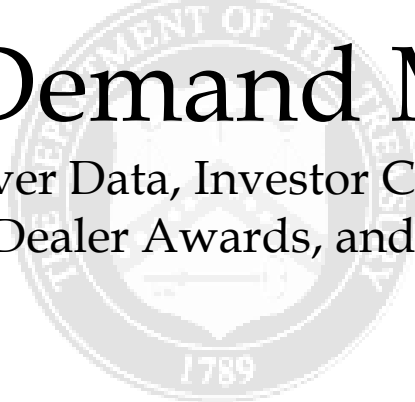


Treasury Maturity Profile

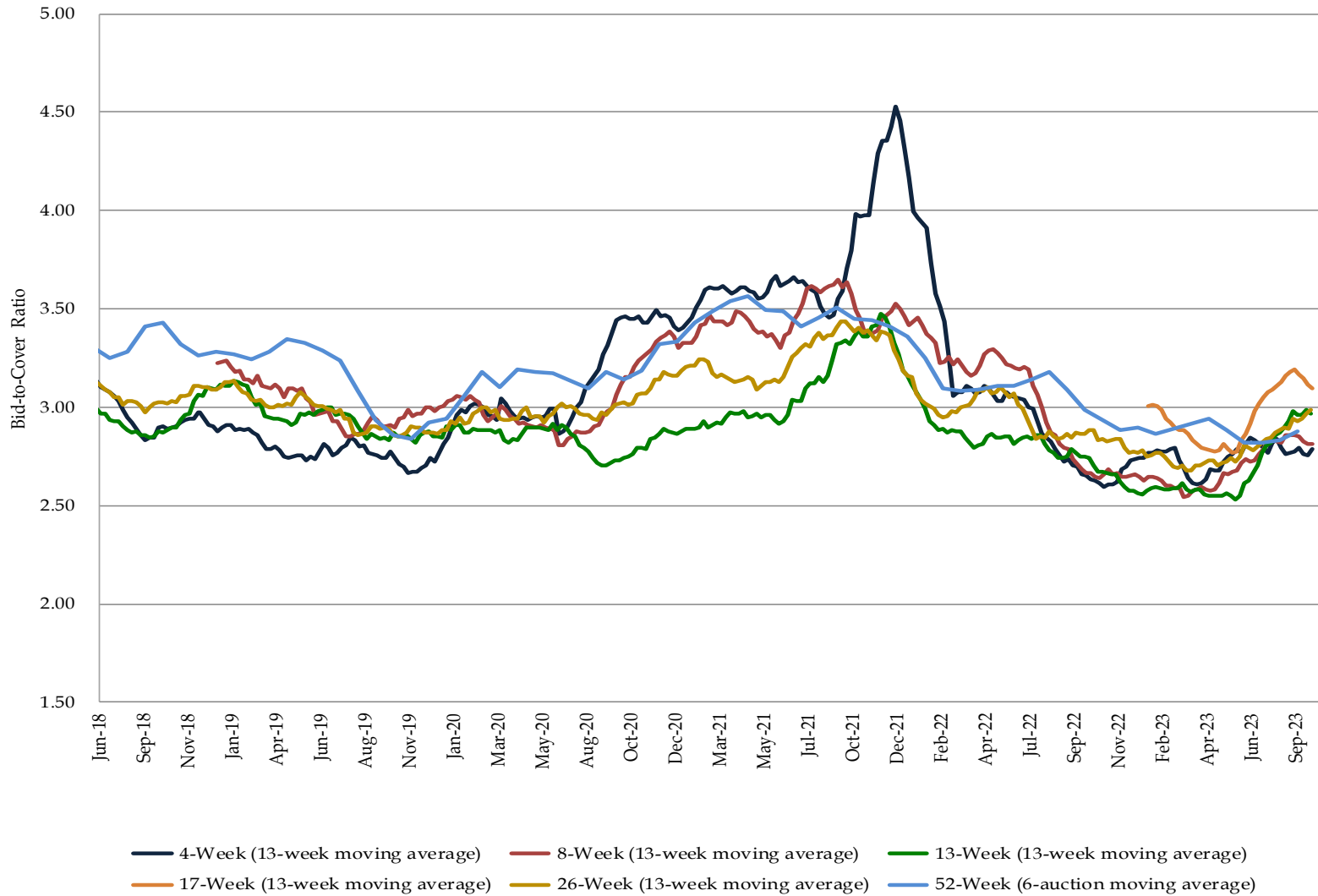


Section VI: Select Demand Metrics

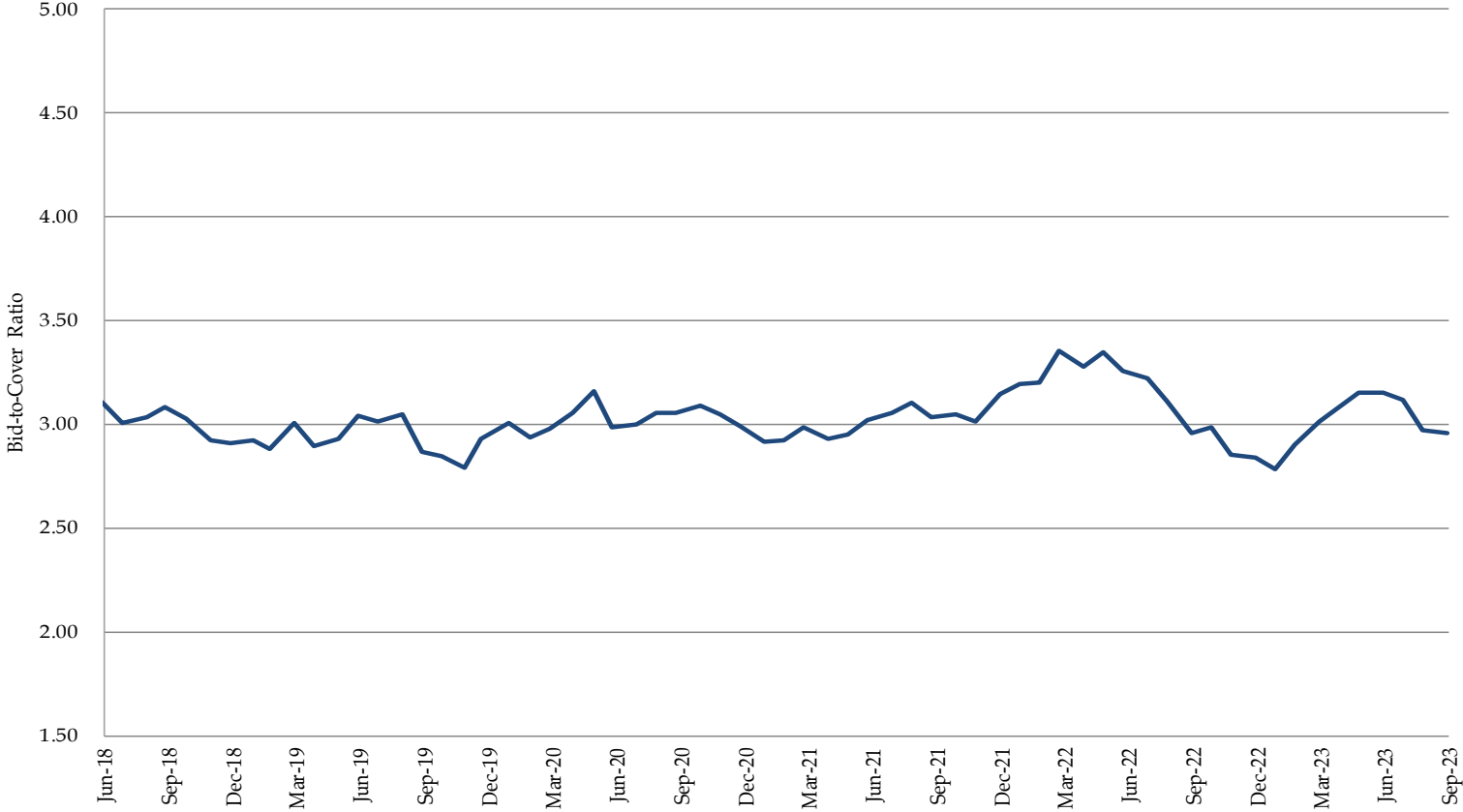
Bid-to-Cover Data, Investor Class Data,
Direct & Primary Dealer Awards, and Foreign Demand



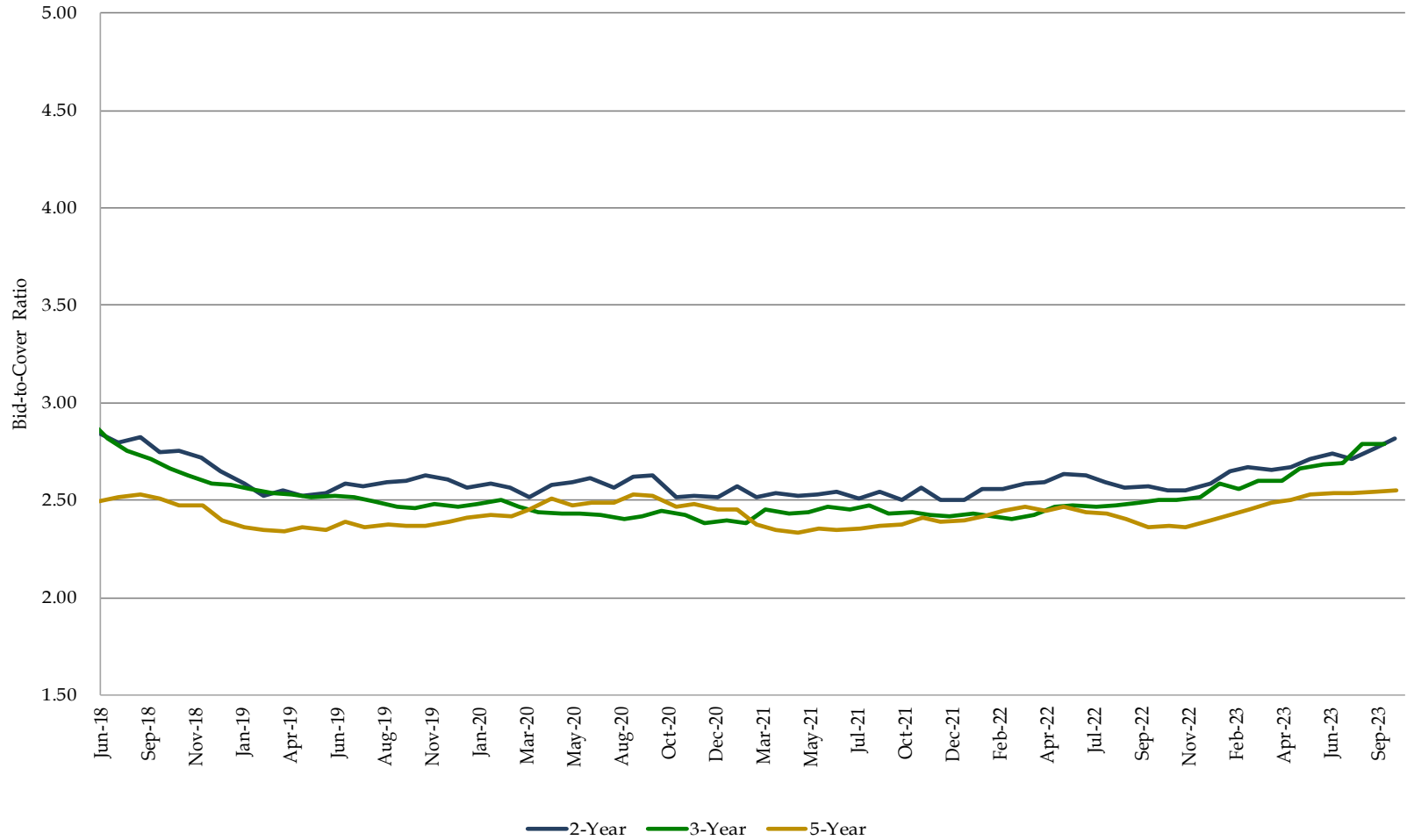
Bid-to-Cover Ratios for Treasury Bills



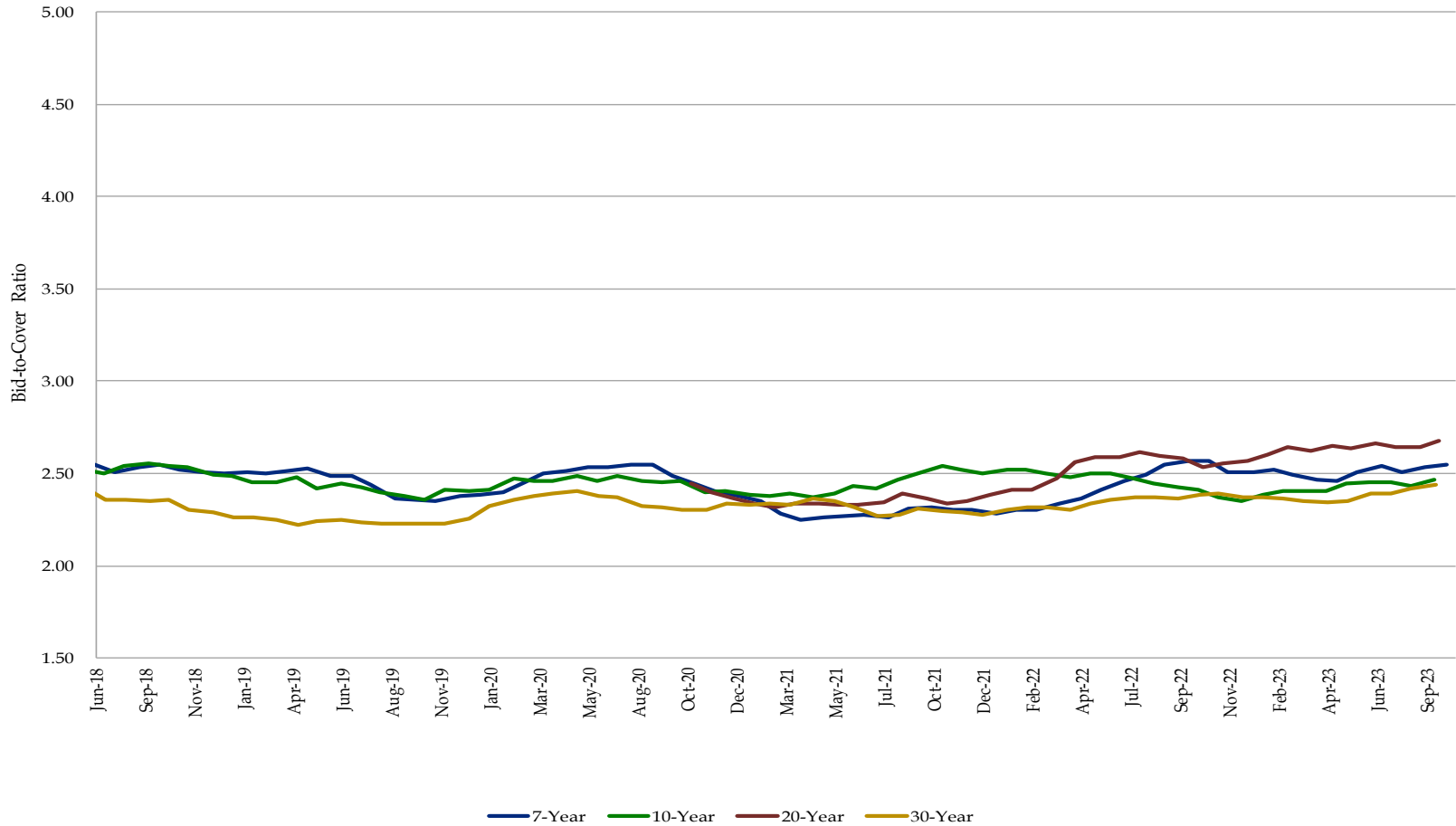
Bid-to-Cover Ratios for FRNs (6-Month Moving Average)



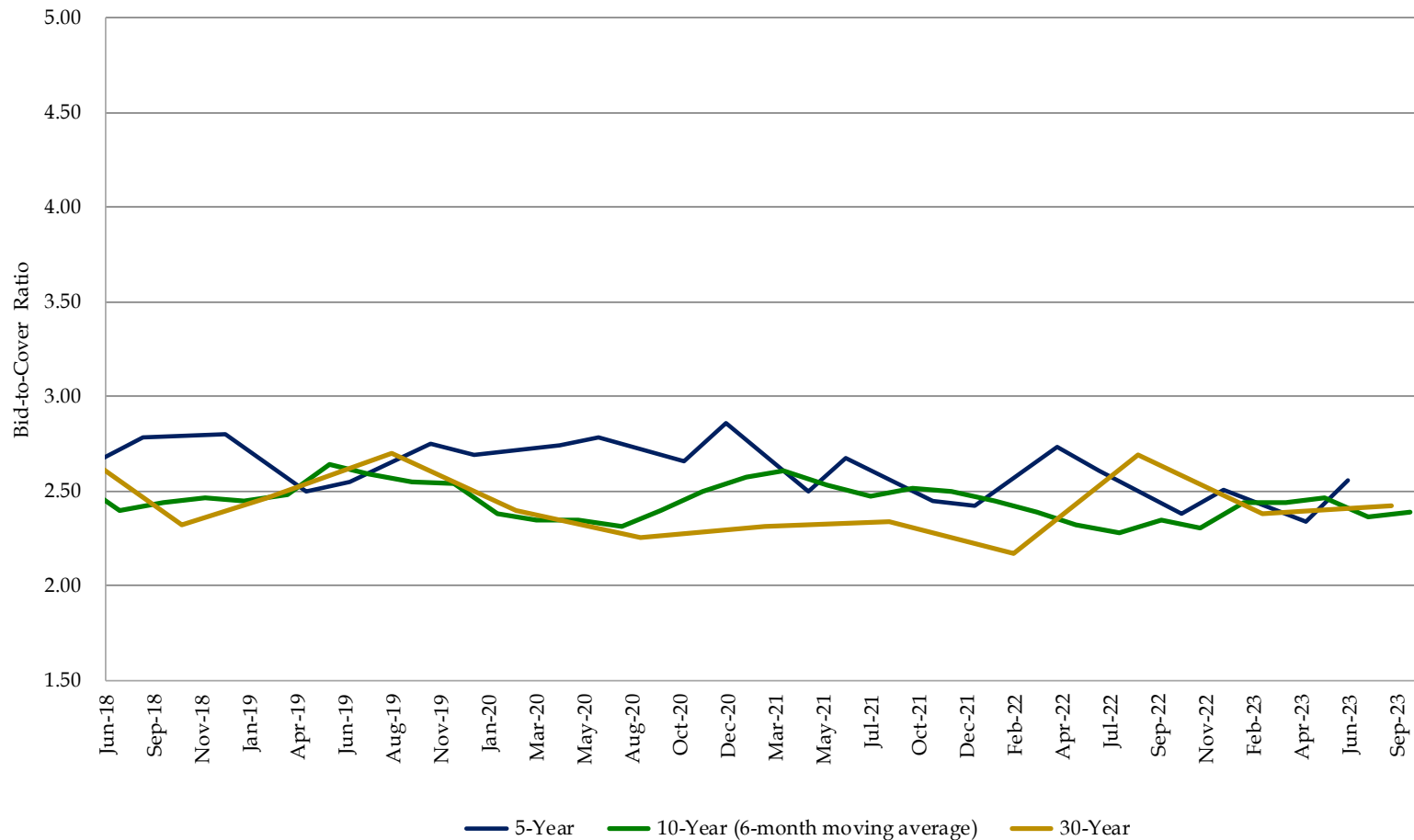
Bid-to-Cover Ratios for 2-, 3-, and 5-Year Nominal Securities (6-Month Moving Average)



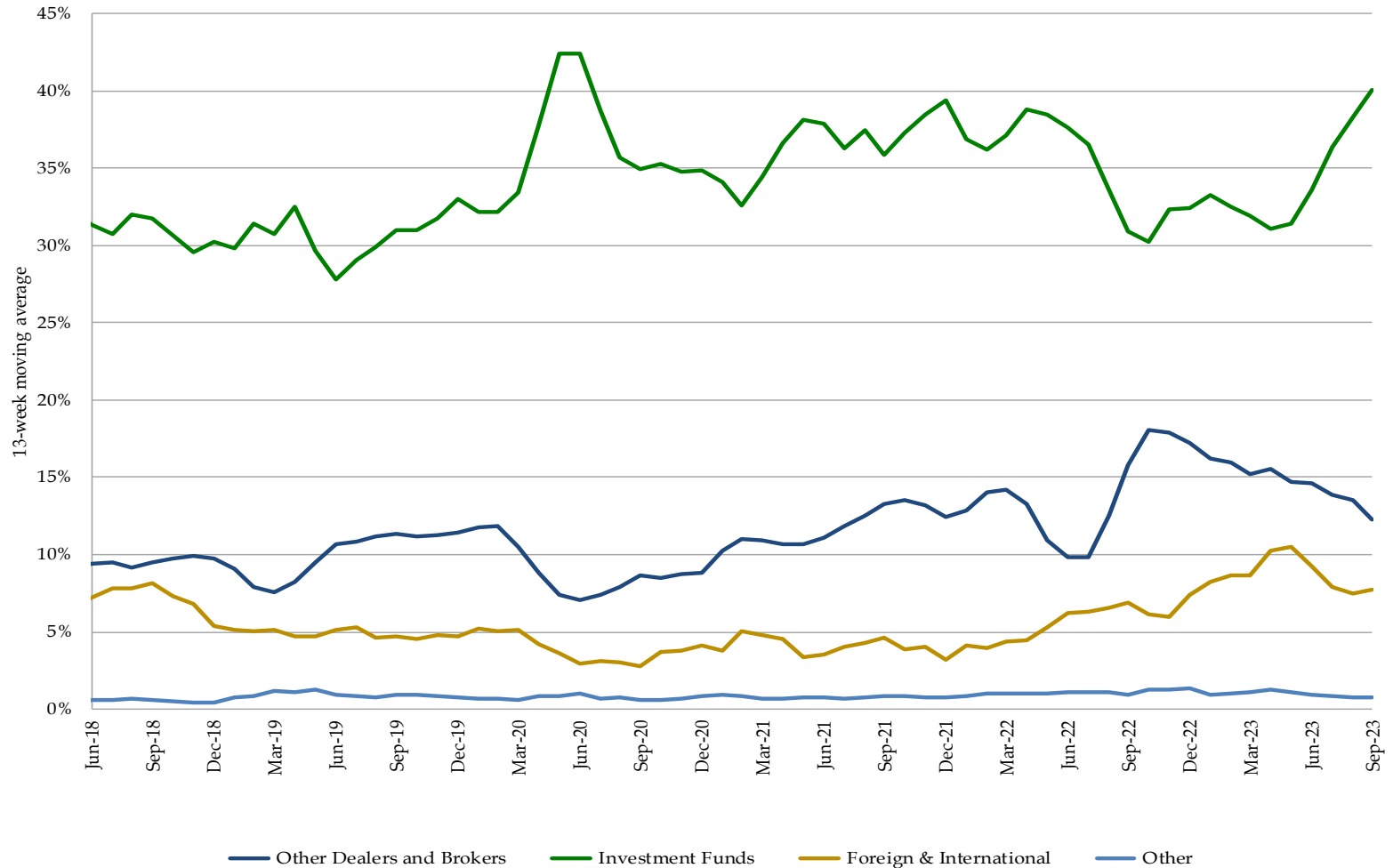
Bid-to-Cover Ratios for 7-, 10-, 20-, and 30-Year Nominal Securities (6-Month Moving Average)



Bid-to-Cover Ratios for TIPS

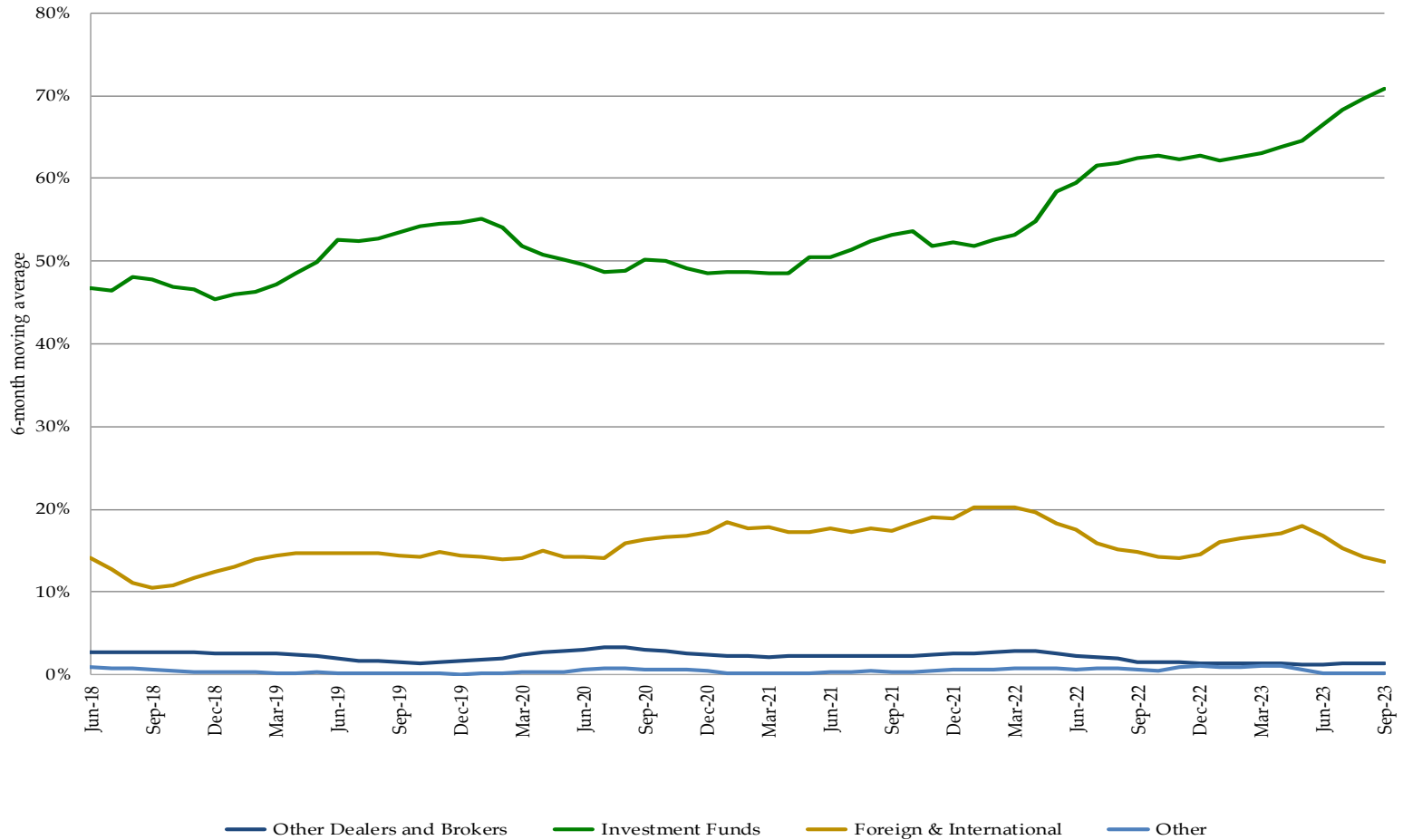


Percent Awarded in Bill Auctions by Investor Class (13-Week Moving Average)



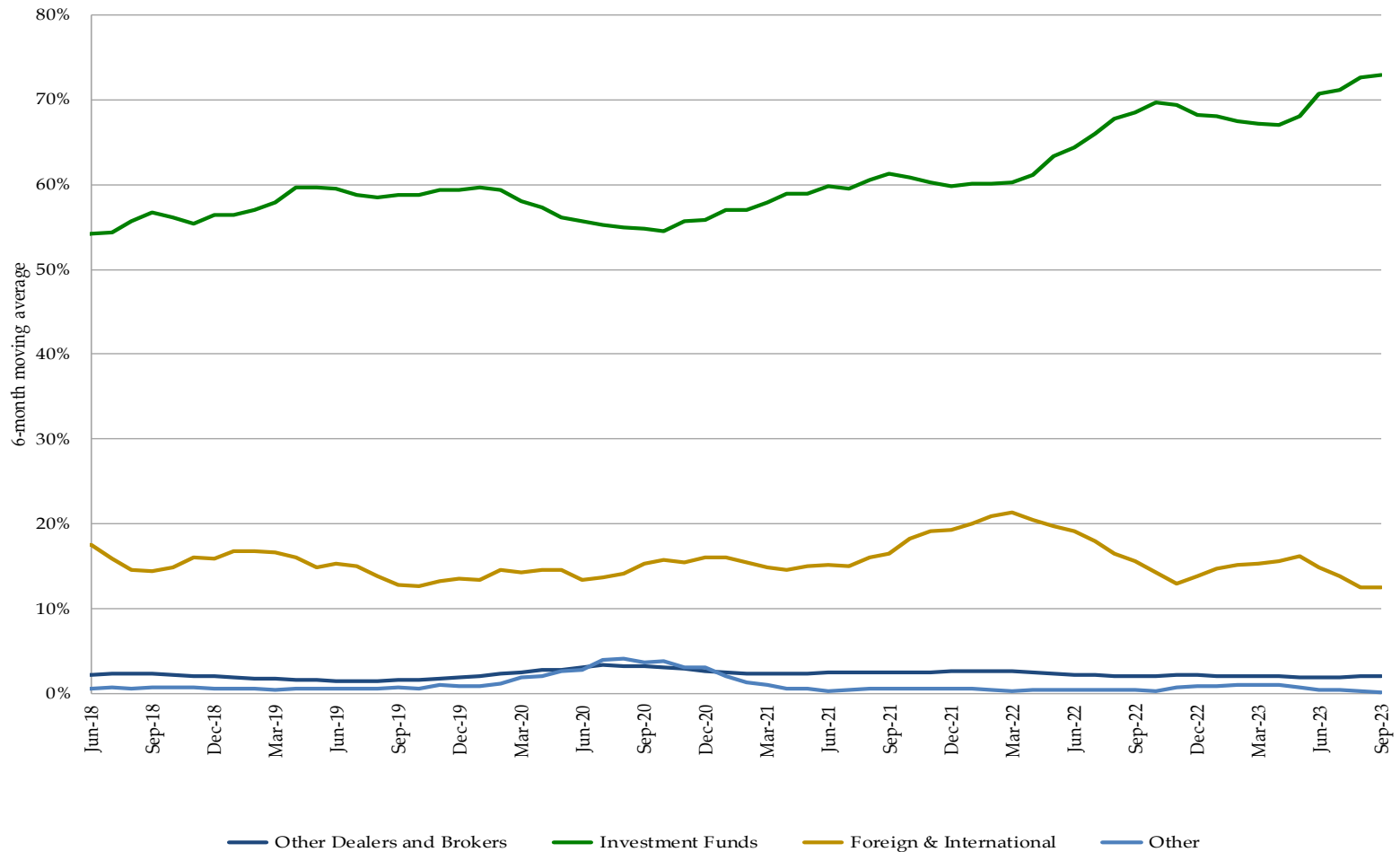
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



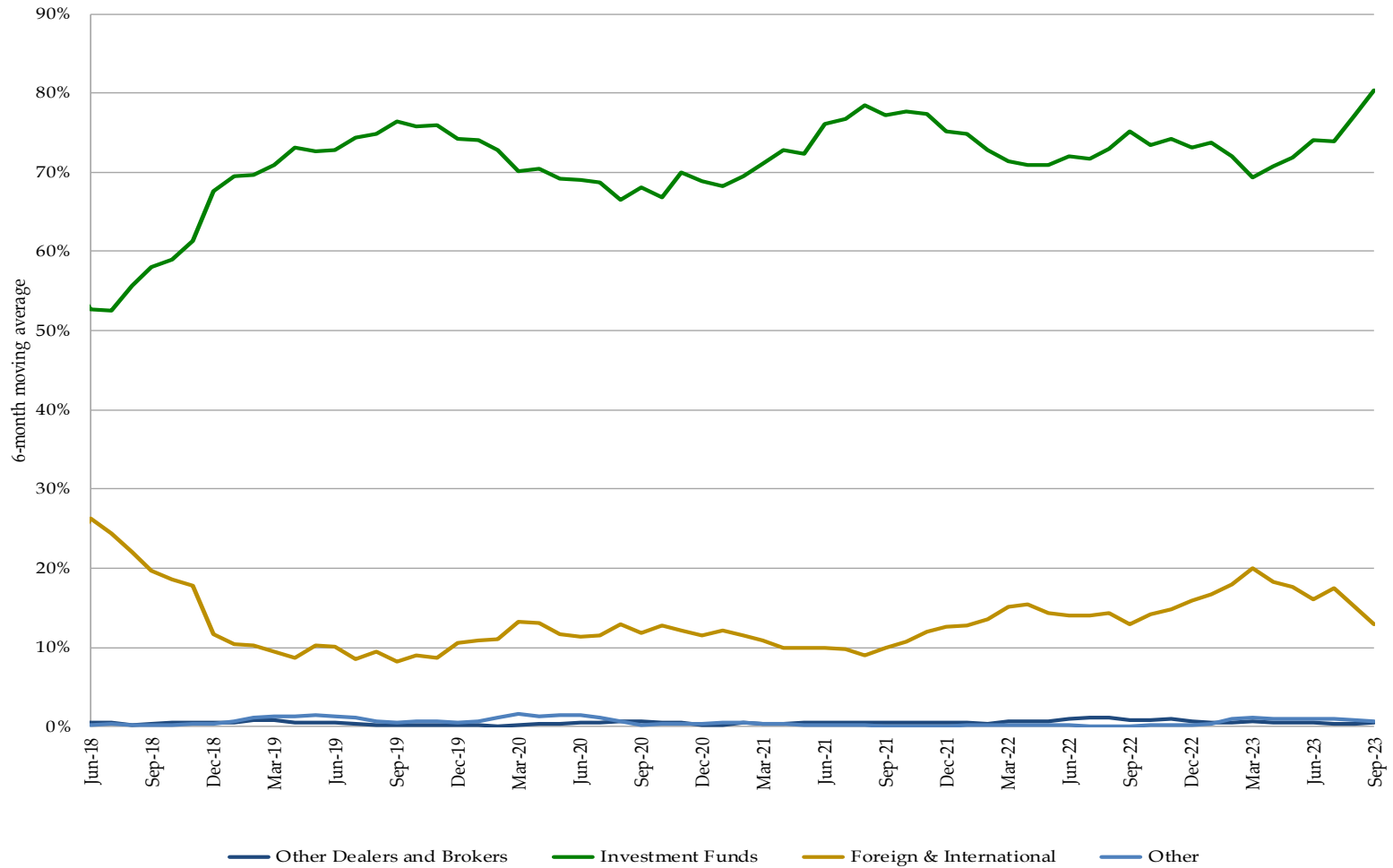
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



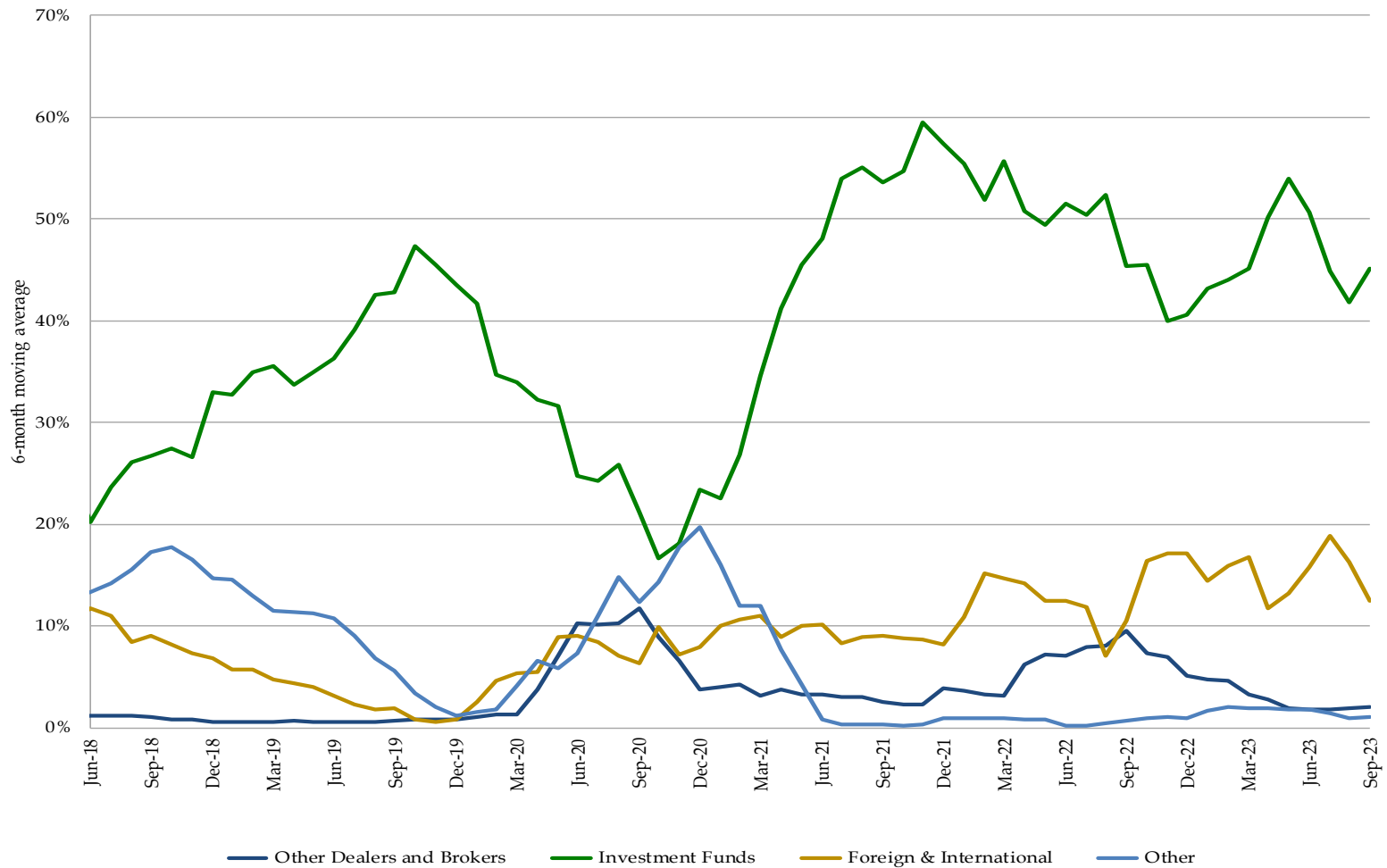
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



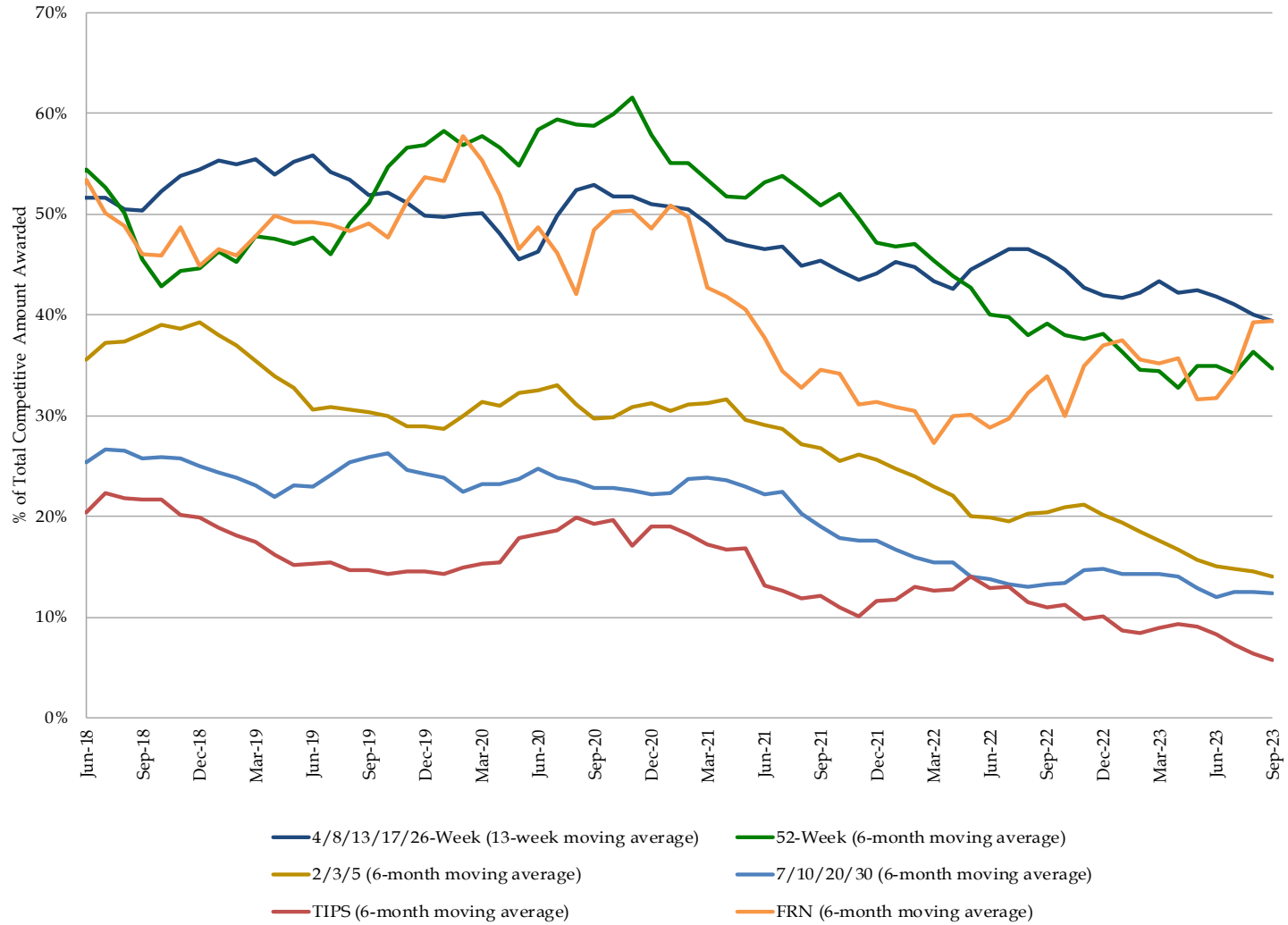
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



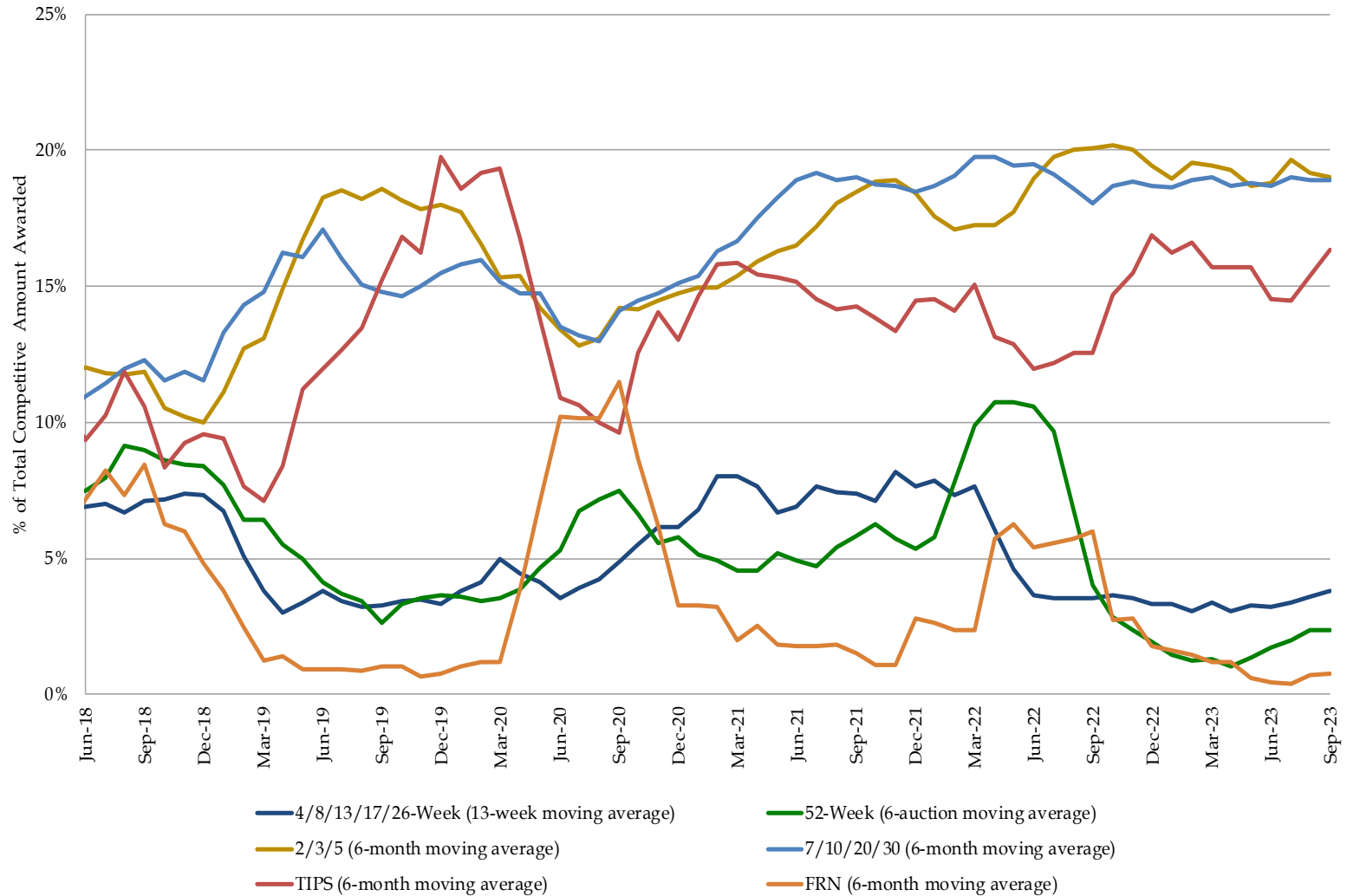
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Primary Dealer Awards at Auction



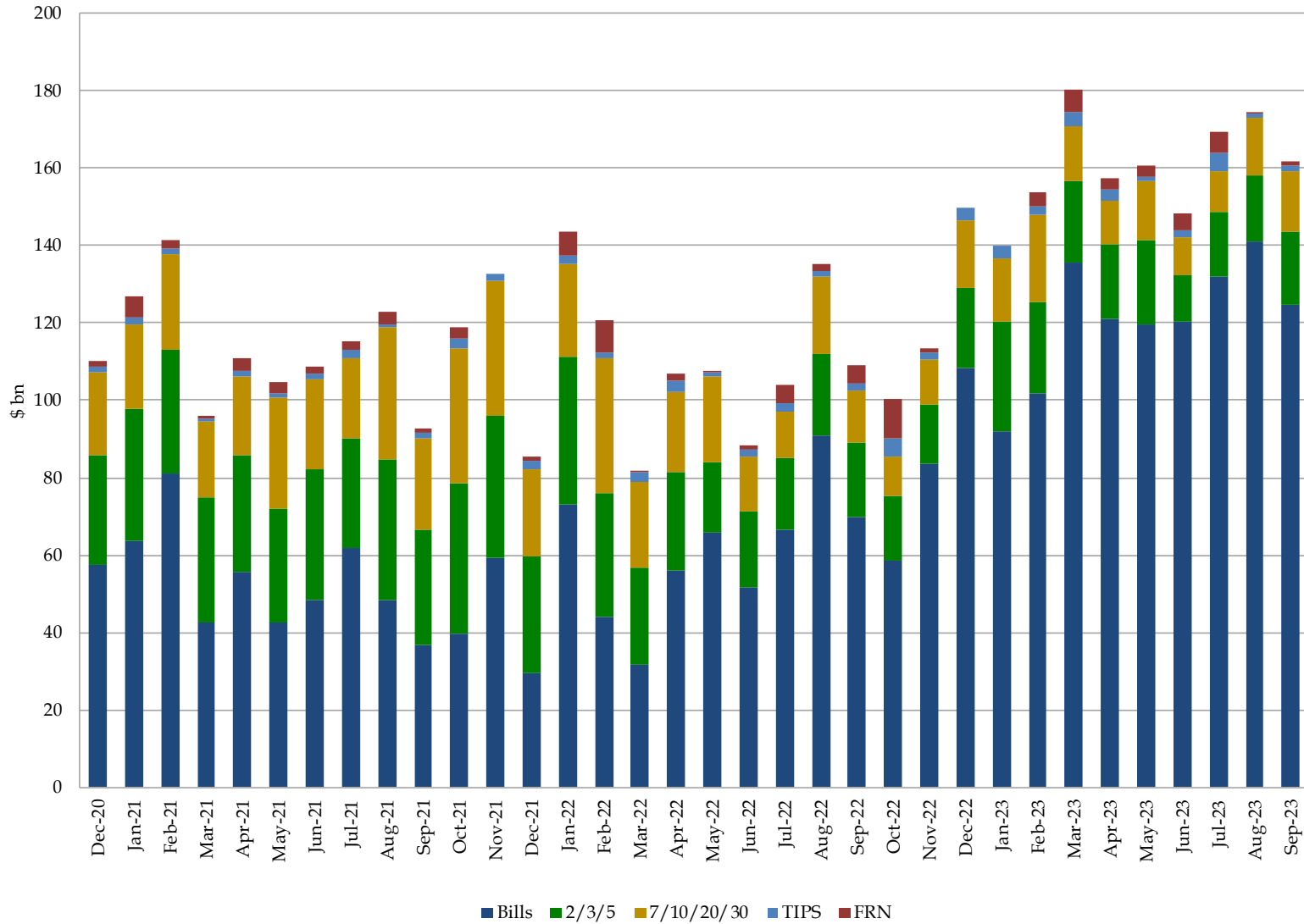
Competitive Amount Awarded excludes SOMA add-ons.

Direct Bidder Awards at Auction



Competitive Amount Awarded excludes SOMA add-ons.

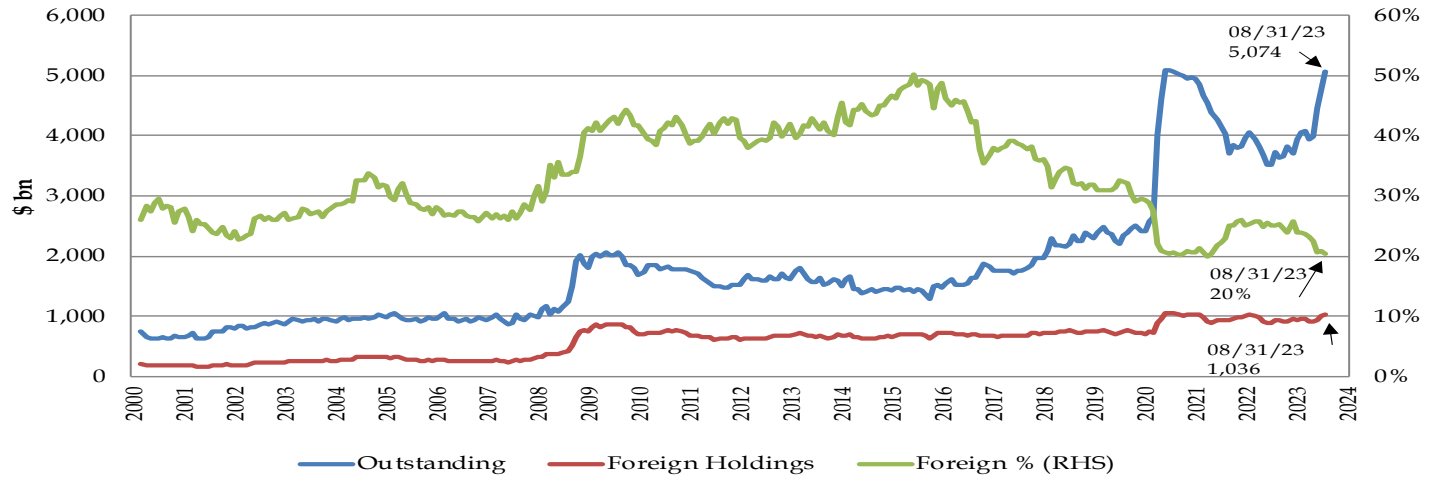
Total Foreign Awards of Treasuries at Auction, \$ billions



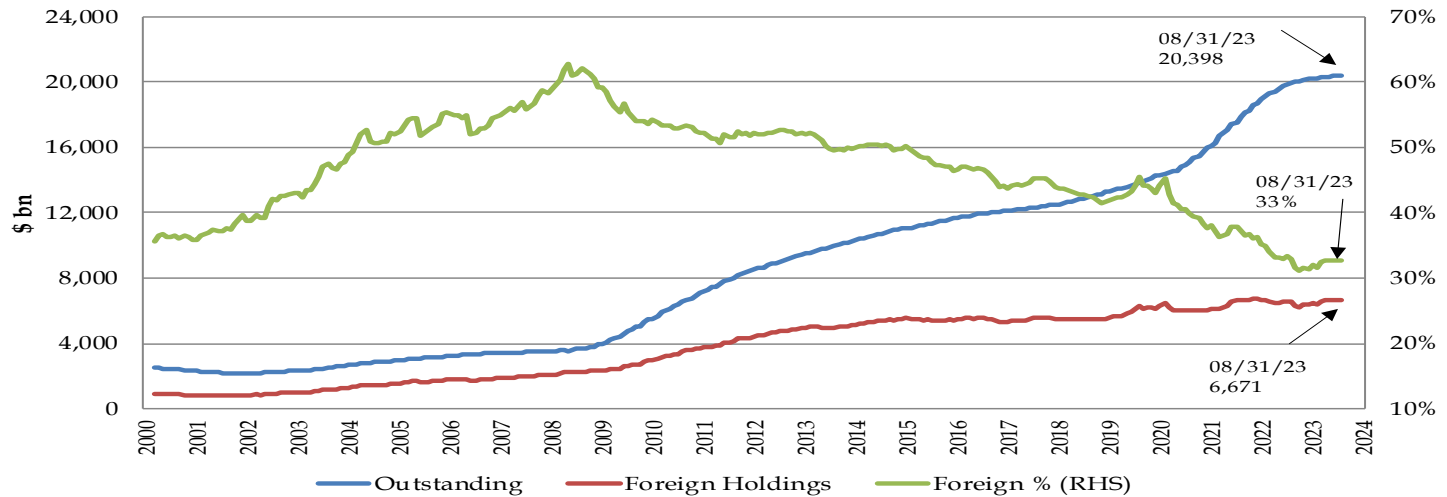
Foreign includes both private sector and official institutions.

Total Foreign Holdings

Bills



Nominal Coupons, TIPS, and FRNs



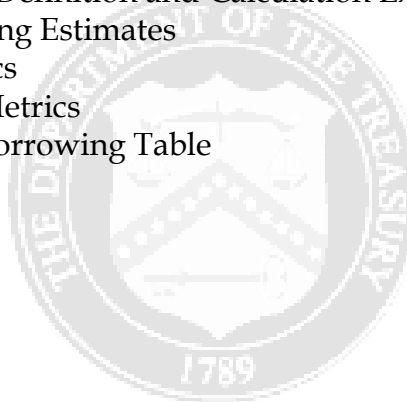
Source: Treasury International Capital (TIC) System as of August 2023.

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.

VII. Appendix

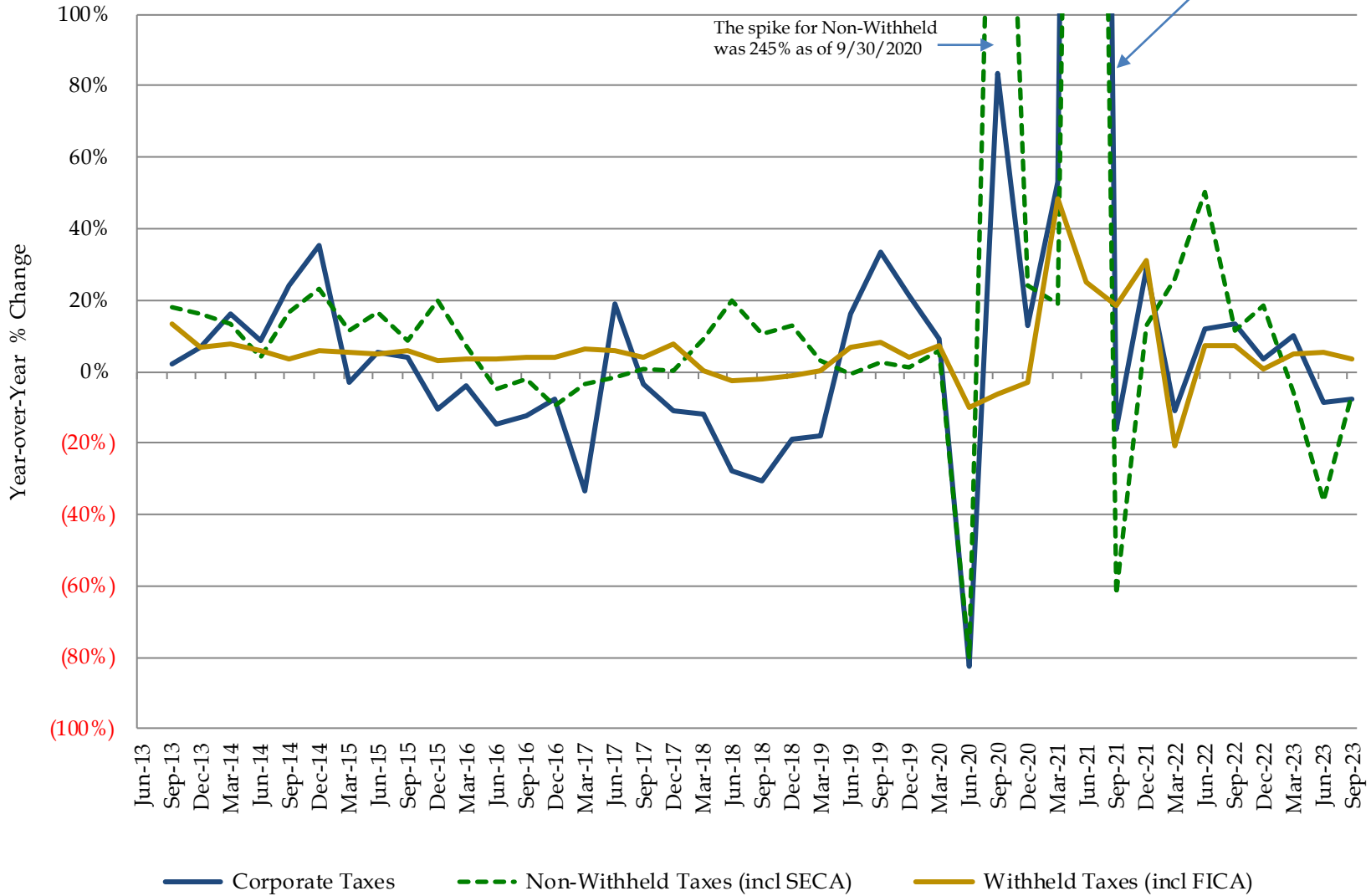
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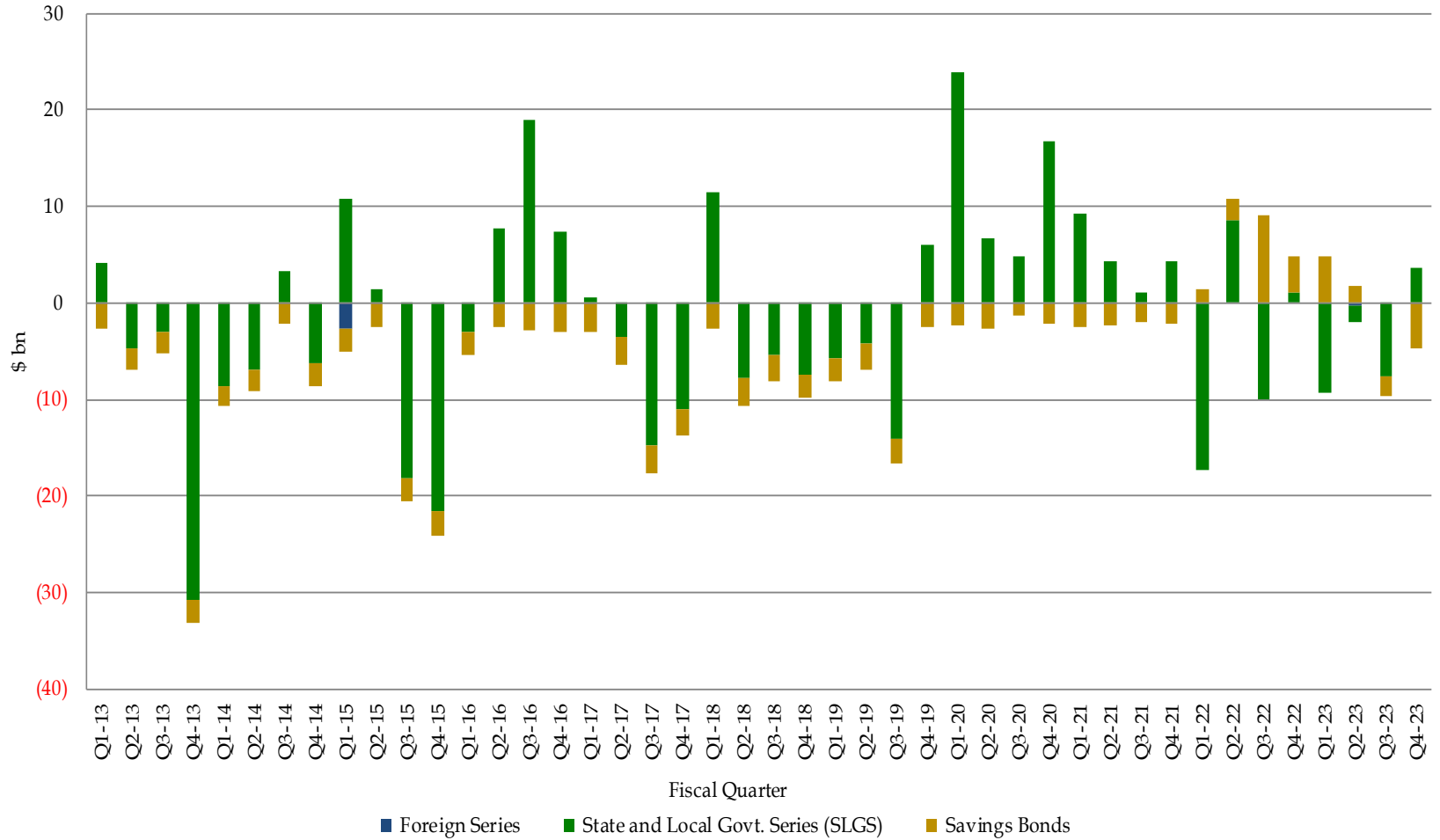
Quarterly Tax Receipts

The spike for Corporate Taxes was 781% and the spike for Non-Withheld was 541% as of 6/30/2021

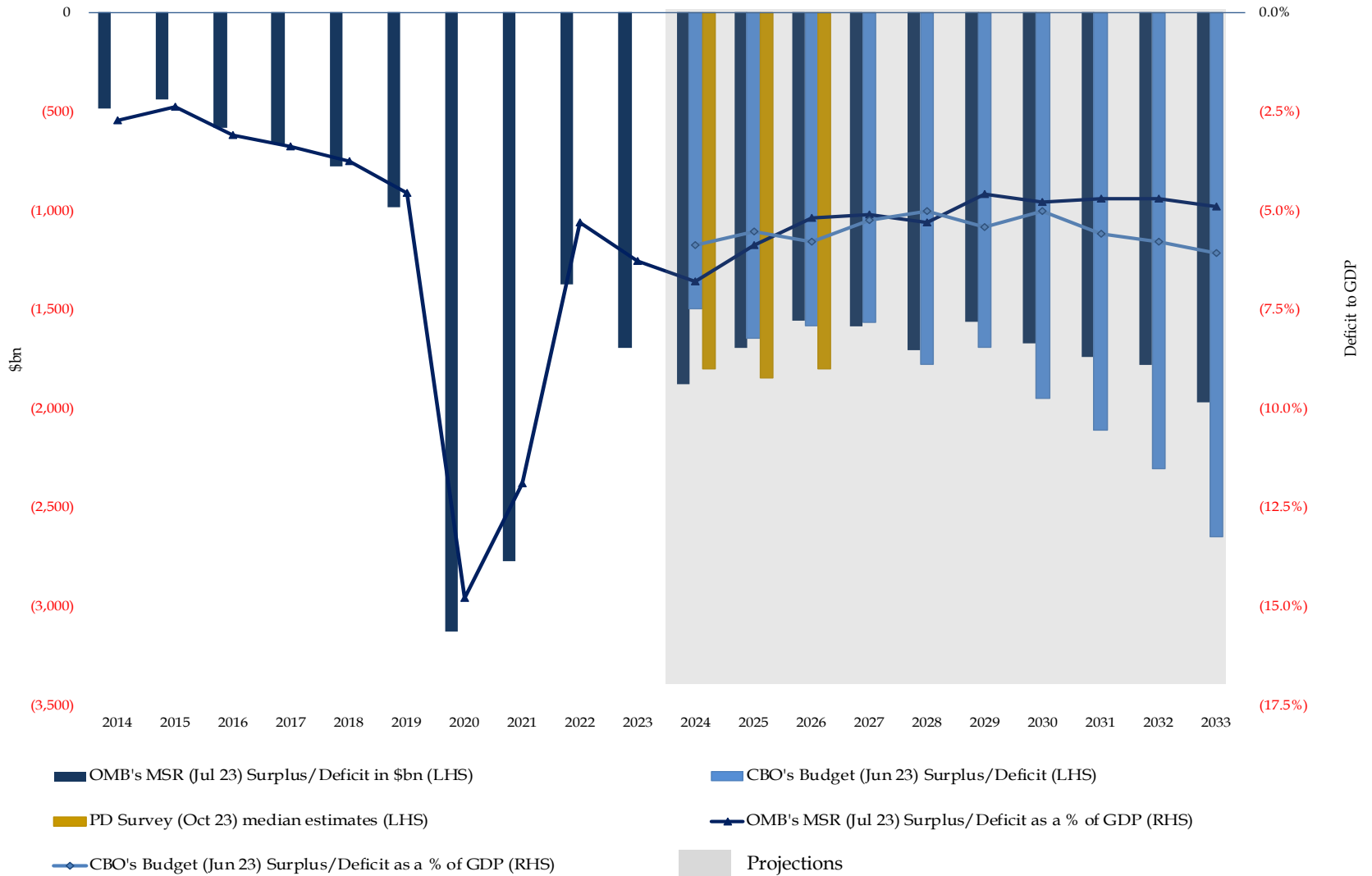


Quarterly tax receipts for Q4 FY2020 reflect the adjustment of April and June 2020 tax deadlines to July 15th, 2020.

Treasury Net Nonmarketable Borrowing



Budget Surplus/Deficit*



*OMB's projections are from OMB's Table S-1 of "Mid-Session Review, Budget of The U.S. Government," July 2023.
 CBO's projections are from Table 1 of "How the Fiscal Responsibility Act of 2023 Affects CBO's Projections of Federal Debt," June 2023.

Sources of Privately-Held Financing in FY23 Q4

July - September 2023	
Net Bill Issuance	824
Net Coupon Issuance	185
Subtotal: Net Marketable Borrowing	1,010
Ending Cash Balance	657
Beginning Cash Balance	402
Subtotal: Change in Cash Balance	254
Net Implied Funding for FY23 Q4*	755

Security	July - September 2023 Bill Issuance			Fiscal Year-to-Date Bill Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
4-Week	975	885	90	3,214	3,094	120
8-Week	845	650	195	2,800	2,635	165
13-Week	875	779	96	3,133	2,948	185
17-Week	624	477	147	1,931	1,125	806
26-Week	784	621	163	2,668	2,316	352
52-Week	120	102	18	466	442	24
CMBs						
6-Week	725	510	215	870	510	360
CMBs	0	100	(100)	813	1,138	(325)
Bill Subtotal	4,947	4,123	824	15,894	14,207	1,687

Security	July - September 2023 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	72	80	(8)	276	314	(38)
2-Year	87	115	(28)	465	566	(101)
3-Year	126	108	18	486	334	152
5-Year	89	43	46	476	209	267
7-Year	71	51	20	386	297	89
10-Year	105	41	64	402	174	228
20-Year	28	0	28	145	0	145
30-Year	61	7	54	232	14	218
5-Year TIPS	0	0	0	80	43	37
10-Year TIPS	32	49	(17)	94	98	(5)
30-Year TIPS	8	0	8	17	0	17
Coupon Subtotal	678	493	185	3,058	2,049	1,009

Total	5,626	4,616	1,010	18,952	16,256	2,696
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*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.

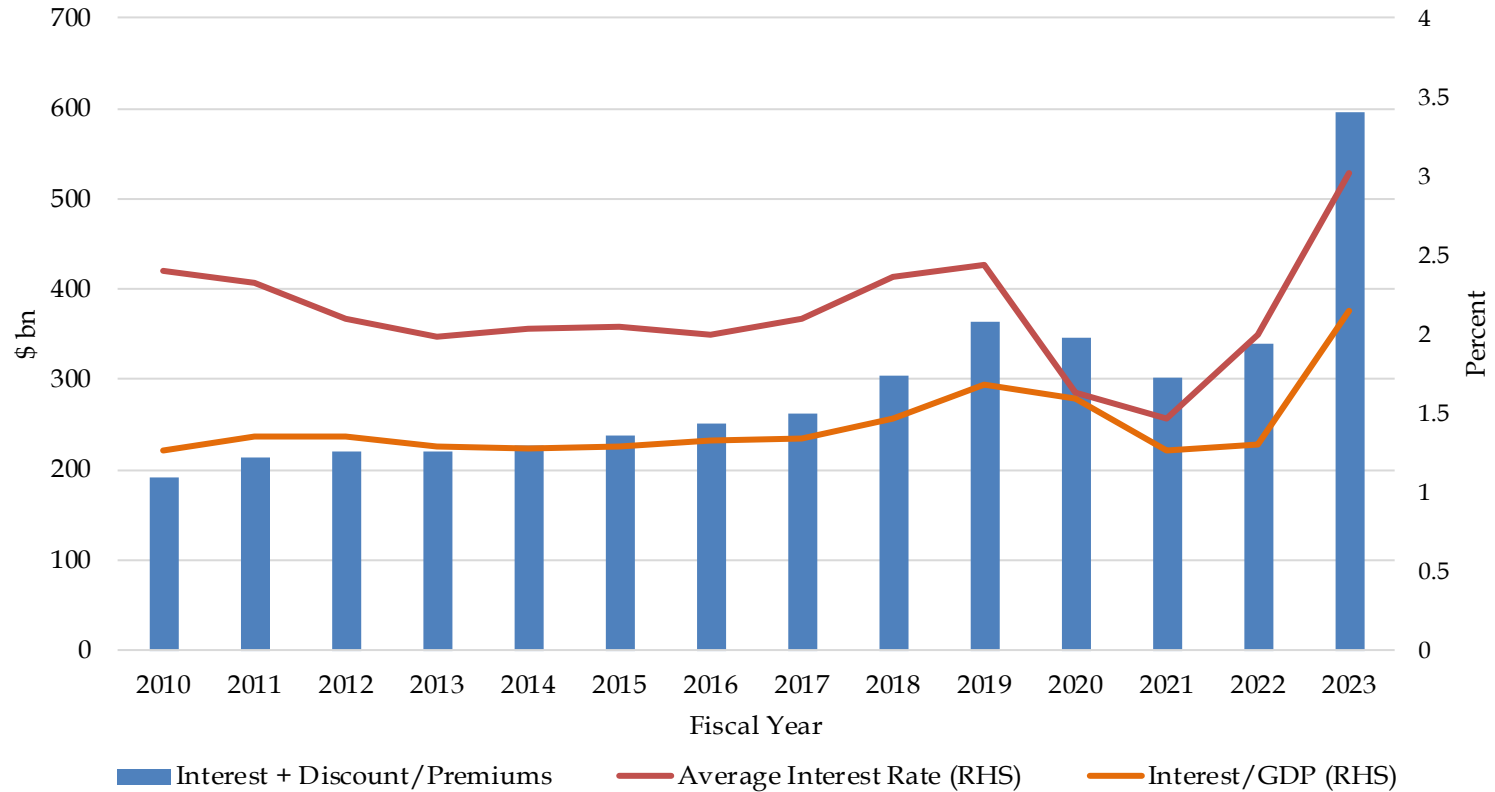
FY 2024-2026 Deficits and Privately-Held Net Marketable Borrowing Estimates, in \$ billions

	Primary Dealer			OMB	CBO
	25th	Median	75th		
FY 2024 Deficit	1,688	1,800	1,807	1,877	1,501
FY 2025 Deficit	1,725	1,850	1,900	1,698	1,649
FY 2026 Deficit	1,728	1,800	1,950	1,561	1,586
FY 2024 Change in Cash Balance	33	76	93	0	0
FY 2025 Change in Cash Balance	10	17	0	0	0
FY 2026 Change in Cash Balance	0	0	50	0	0
FY 2024 Total Net Marketable Borrowing				1,664	1,551
FY 2025 Total Net Marketable Borrowing				1,817	1,746
FY 2026 Total Net Marketable Borrowing				1,683	1,676
FY 2024 SOMA Redemption	540	630	720		
FY 2025 SOMA Redemption	0	0	180		
FY 2026 SOMA Redemption	0	0	0		
FY 2024 Privately-Held Net Marketable Borrowing*	2,305	2,500	2,560	2,735	2,257
FY 2025 Privately-Held Net Marketable Borrowing*	1,815	1,950	2,050	1,849	1,763
FY 2026 Privately-Held Net Marketable Borrowing*	1,750	1,898	1,994	1,696	1,676

Estimates as of:	Oct-23	Jul-23	Jun-23
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- *All privately-held net marketable borrowing estimates of are “normalized” using:
 - 1) the median Primary Dealer’s estimates for SOMA redemptions, and
 - 2) PD’s median end of fiscal year 2024 cash balance of \$733 billion, held constant in out years.
- OMB projections are using estimates are from Table S-1 of “Mid-Session Review, Budget of The U.S. Government,” July 2023. Adjusted to reflect the latest assumptions about student loans.
- CBO projections are using estimates are from Table 1 & 2 of “How the Fiscal Responsibility Act of 2023 Affects CBO’s Projections of Federal Debt ,” June 2023.

Historical Marketable Treasury Debt Service Cost

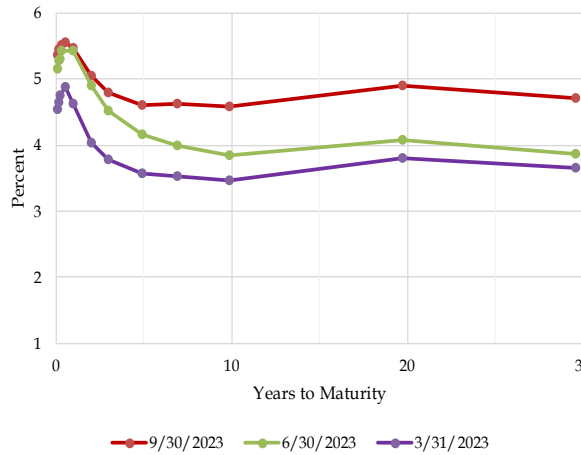


Source: <https://fiscaldata.treasury.gov/datasets>

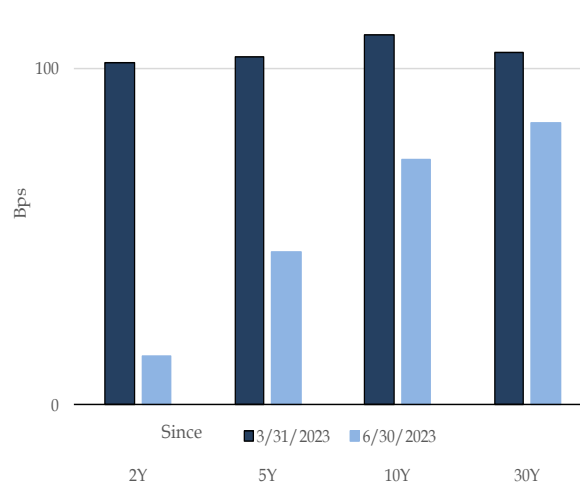
The average interest rates for total marketable debt do not include the Treasury Inflation-Indexed Securities and the Treasury Floating Rate Notes. However, they include securities from Federal Financing Bank. The average interest rates in the chart are as of corresponding fiscal year-end-dates.

Various Historical Treasury Interest Rate Metrics

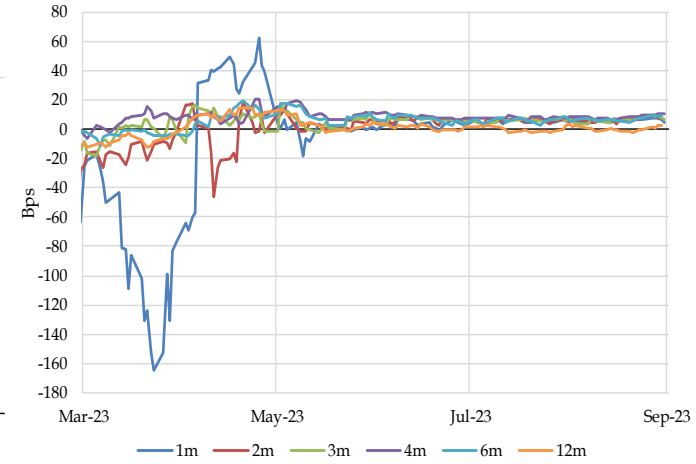
Treasury Nominal Yield Curve as of specified dates



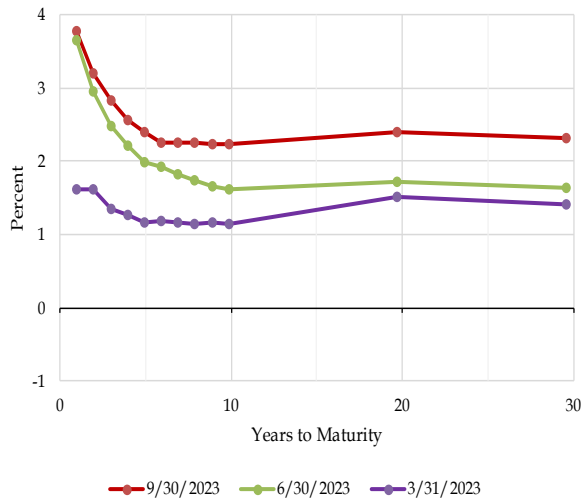
Nominal Yield Changes in Selected Tenors Through the end of 09/30/23



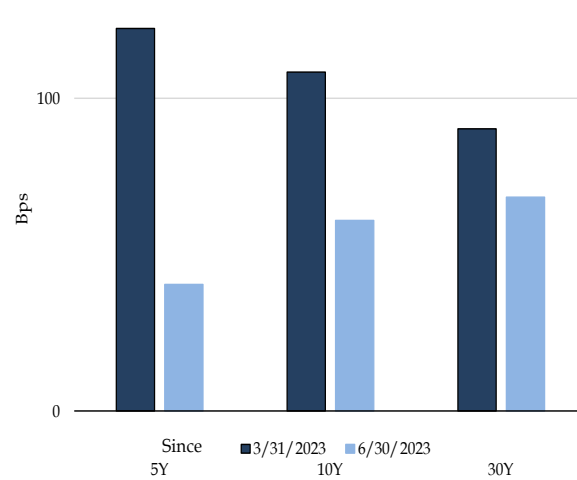
Bills-SOFR OIS spreads Through the end of 09/30/23



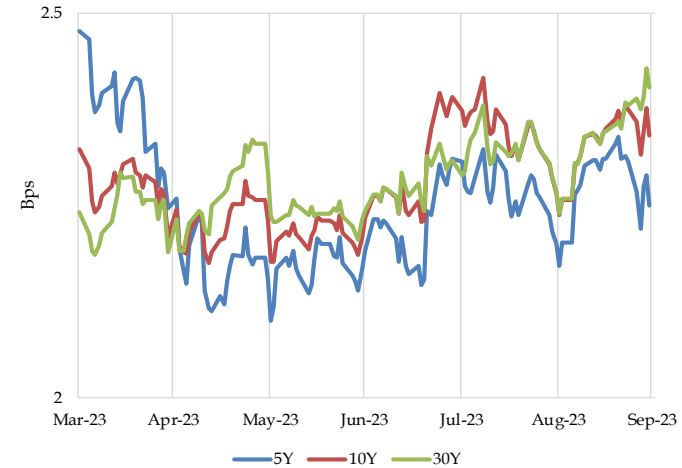
Treasury Real Yield Curve as of specified dates



Real Yield Changes in Selected Tenors Through the end of 09/30/23



Breakevens Through the end of 09/30/23



**Projected Privately-Held Net Marketable Borrowing
Assuming Private Coupon Issuance & Total Bills Outstanding
Remain Constant as of 10/31/2023***

Fiscal Year	Bills	2/3/5	7/10/20/30	TIPS	FRN	Historical/Projected Net Borrowing Capacity
2019	137	498	534	51	59	1,280
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	197	328	793	76	14	1,409
2025	0	232	812	11	20	1,075
2026	0	15	808	29	0	851
2027	0	68	691	11	0	770
2028	0	96	375	(11)	0	460
2029	0	3	495	(8)	0	490
2030	0	0	616	7	0	623
2031	0	0	411	(5)	0	406
2032	0	0	435	(30)	0	406
2033	0	0	447	(22)	0	425

*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	7/11/2023	5.150	2.54	65.9	50.7	1.9	47.3	4.1	0.8	0.6
4-Week	7/18/2023	5.210	2.79	63.9	40.1	4.6	55.4	6.1	0.8	0.6
4-Week	7/25/2023	5.255	2.66	65.4	41.1	6.1	52.8	4.6	0.8	0.6
4-Week	8/1/2023	5.275	3.18	64.1	36.1	3.7	60.2	5.9	0.9	0.6
4-Week	8/8/2023	5.275	2.80	65.3	42.3	4.7	53.0	4.7	0.9	0.6
4-Week	8/15/2023	5.280	2.62	70.5	44.1	6.5	49.5	4.5	0.9	0.7
4-Week	8/22/2023	5.280	2.67	75.7	42.3	3.2	54.5	4.3	0.9	0.7
4-Week	8/29/2023	5.285	2.89	75.7	36.1	2.4	61.5	4.3	1.0	0.7
4-Week	9/5/2023	5.280	2.95	75.1	37.2	1.7	61.1	4.9	0.5	0.7
4-Week	9/12/2023	5.280	2.70	75.5	40.1	2.4	57.5	4.5	0.5	0.7
4-Week	9/19/2023	5.285	2.66	75.5	50.6	3.5	45.9	4.5	0.5	0.7
4-Week	9/26/2023	5.280	2.80	75.7	42.1	4.8	53.1	4.3	0.5	0.7
4-Week	10/3/2023	5.290	2.95	80.1	38.8	4.1	57.1	4.9	0.7	0.8
8-Week	7/11/2023	5.200	2.88	58.6	32.0	1.9	66.1	1.4	0.7	1.1
8-Week	7/18/2023	5.230	2.87	57.9	39.7	1.8	58.5	2.1	0.7	1.1
8-Week	7/25/2023	5.255	2.99	58.8	35.5	3.9	60.7	1.2	0.7	1.1
8-Week	8/1/2023	5.285	2.86	56.8	41.2	4.3	54.4	3.2	0.8	1.1
8-Week	8/8/2023	5.285	2.77	58.5	41.9	4.6	53.6	1.5	0.8	1.1
8-Week	8/15/2023	5.280	2.96	63.5	39.6	2.5	57.9	1.5	0.8	1.2
8-Week	8/22/2023	5.280	2.89	68.6	38.0	9.9	52.1	1.4	0.8	1.3
8-Week	8/29/2023	5.290	2.82	68.5	37.2	2.1	60.7	1.5	0.8	1.3
8-Week	9/5/2023	5.290	2.77	68.7	37.6	2.3	60.1	1.3	0.4	1.3
8-Week	9/12/2023	5.290	2.79	68.7	45.6	2.9	51.5	1.3	0.5	1.3
8-Week	9/19/2023	5.295	2.77	68.6	41.6	3.5	54.9	1.4	0.4	1.3
8-Week	9/26/2023	5.300	2.58	68.7	48.8	5.3	45.9	1.3	0.5	1.3
8-Week	10/3/2023	5.330	2.59	73.6	37.6	4.4	58.0	1.4	0.6	1.4

*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	7/6/2023	5.230	3.00	62.7	37.1	2.3	60.6	2.3	5.5	2.1
13-Week	7/13/2023	5.250	3.12	61.9	38.3	2.8	58.8	3.1	5.1	2.1
13-Week	7/20/2023	5.250	3.11	62.4	34.6	4.6	60.8	2.6	5.2	2.1
13-Week	7/27/2023	5.270	2.92	60.7	38.3	3.4	58.3	4.3	5.0	2.1
13-Week	8/3/2023	5.280	2.93	62.3	38.5	5.7	55.8	2.7	8.1	2.2
13-Week	8/10/2023	5.290	2.83	64.2	37.0	4.9	58.1	2.8	6.4	2.2
13-Week	8/17/2023	5.295	3.12	66.3	38.1	4.6	57.3	2.7	7.1	2.3
13-Week	8/24/2023	5.300	2.96	66.6	38.9	3.9	57.2	2.4	5.7	2.3
13-Week	8/31/2023	5.340	3.04	66.7	46.0	2.9	51.1	2.3	5.3	2.2
13-Week	9/7/2023	5.315	2.94	66.7	45.1	4.6	50.3	2.3	1.9	2.1
13-Week	9/14/2023	5.315	2.98	66.7	36.8	3.7	59.5	2.3	1.9	2.1
13-Week	9/21/2023	5.315	2.86	66.4	42.0	5.6	52.4	2.6	0.7	2.1
13-Week	9/28/2023	5.330	2.77	66.6	42.6	5.6	51.8	2.4	2.7	2.2
17-Week	7/11/2023	5.250	3.31	44.3	37.2	2.4	60.4	1.7	0.5	1.8
17-Week	7/18/2023	5.260	3.13	44.7	39.1	3.6	57.2	1.3	0.5	1.8
17-Week	7/25/2023	5.270	3.29	45.3	38.1	3.8	58.0	0.7	0.5	1.8
17-Week	8/1/2023	5.300	2.99	45.2	41.3	6.3	52.5	0.8	0.6	1.8
17-Week	8/8/2023	5.300	3.21	45.2	39.3	4.8	55.9	0.8	0.6	1.8
17-Week	8/15/2023	5.310	3.19	47.1	40.1	5.2	54.7	0.9	0.6	1.9
17-Week	8/22/2023	5.305	3.02	49.1	48.5	3.4	48.1	0.9	0.6	2.0
17-Week	8/29/2023	5.315	3.01	49.3	41.8	4.2	54.0	0.7	0.6	2.0
17-Week	9/5/2023	5.330	3.12	47.3	40.3	5.7	54.0	2.7	0.3	2.0
17-Week	9/12/2023	5.335	2.98	47.4	38.8	3.6	57.6	2.6	0.3	2.0
17-Week	9/19/2023	5.330	2.95	47.3	47.6	3.9	48.5	2.7	0.3	2.0
17-Week	9/26/2023	5.340	2.83	47.7	46.6	4.7	48.7	2.3	0.3	2.0
17-Week	10/3/2023	5.345	3.18	49.4	38.7	3.4	57.9	2.6	0.4	2.1

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

Bills (cont.)										
Issue	Settle Date	Stop Out Rate (%)	Bid-to-Cover Ratio	Competitive Awards (\$bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards (\$bn)	SOMA "Add Ons" (\$bn)	10-Year Equivalent (\$bn)*
26-Week	7/6/2023	5.260	3.02	54.0	31.5	1.5	67.0	4.0	4.9	3.7
26-Week	7/13/2023	5.270	2.93	55.1	32.3	2.4	65.2	2.9	4.6	3.7
26-Week	7/20/2023	5.250	3.05	55.4	29.0	2.5	68.4	2.6	4.6	3.7
26-Week	7/27/2023	5.270	2.89	55.6	33.5	3.1	63.5	2.4	4.5	3.7
26-Week	8/3/2023	5.270	2.95	55.1	26.1	2.9	71.0	2.9	7.2	3.9
26-Week	8/10/2023	5.265	2.92	57.1	31.1	5.0	63.9	2.9	5.7	3.9
26-Week	8/17/2023	5.290	2.78	59.1	36.1	4.9	59.0	2.9	6.4	4.1
26-Week	8/24/2023	5.295	2.95	59.2	35.1	2.8	62.1	2.8	5.1	4.0
26-Week	8/31/2023	5.350	3.17	59.1	32.2	2.3	65.6	2.9	4.7	4.0
26-Week	9/7/2023	5.300	3.02	59.5	34.3	2.6	63.1	2.5	1.7	3.8
26-Week	9/14/2023	5.300	3.15	57.4	27.0	2.4	70.5	4.6	1.7	3.8
26-Week	9/21/2023	5.300	3.05	59.4	34.4	5.1	60.5	2.6	0.7	3.8
26-Week	9/28/2023	5.315	2.91	59.5	36.0	5.1	58.9	2.5	2.4	3.9
52-Week	7/13/2023	5.130	2.88	36.4	29.4	2.3	68.3	1.6	3.0	4.8
52-Week	8/10/2023	5.060	2.97	38.1	37.1	3.2	59.7	1.9	3.8	5.2
52-Week	9/7/2023	5.120	3.14	40.6	30.7	2.0	67.3	1.4	1.1	5.2
6-Week CMB	7/6/2023	5.170	2.73	49.9	47.3	1.9	50.8	0.1	0.0	0.7
6-Week CMB	7/13/2023	5.210	2.81	49.8	42.0	2.2	55.8	0.2	0.0	0.7
6-Week CMB	7/20/2023	5.240	3.19	49.8	42.5	5.0	52.5	0.2	0.0	0.7
6-Week CMB	7/27/2023	5.275	3.53	49.8	38.5	8.1	53.5	0.2	0.0	0.7
6-Week CMB	8/3/2023	5.280	3.24	49.8	53.6	7.2	39.2	0.3	0.0	0.7
6-Week CMB	8/10/2023	5.275	2.95	54.8	49.7	5.4	44.9	0.2	0.0	0.8
6-Week CMB	8/17/2023	5.285	3.01	59.8	41.2	3.9	54.9	0.2	0.0	0.8
6-Week CMB	8/24/2023	5.280	3.27	59.8	37.0	2.5	60.4	0.2	0.0	0.8
6-Week CMB	8/31/2023	5.290	2.81	59.8	41.1	2.6	56.3	0.2	0.0	0.8
6-Week CMB	9/7/2023	5.285	3.04	59.9	41.1	1.8	57.1	0.1	0.0	0.8
6-Week CMB	9/14/2023	5.285	3.04	59.8	37.2	2.4	60.3	0.2	0.0	0.8
6-Week CMB	9/21/2023	5.285	3.10	59.8	43.6	3.1	53.3	0.2	0.0	0.8
6-Week CMB	9/28/2023	5.290	2.89	59.8	30.4	4.0	65.6	0.2	0.0	0.8

*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	7/31/2023	4.823	2.78	41.3	13.8	20.8	65.4	0.7	0.0	9.6
2-Year	8/31/2023	5.024	2.94	44.1	15.0	20.0	65.0	0.9	4.7	11.5
2-Year	10/2/2023	5.085	2.73	47.2	14.0	21.0	65.0	0.8	0.0	11.2
3-Year	7/17/2023	4.534	2.88	39.6	10.8	19.8	69.4	0.4	0.0	13.5
3-Year	8/15/2023	4.398	2.90	41.5	10.3	15.7	74.0	0.5	15.7	19.6
3-Year	9/15/2023	4.660	2.75	43.7	20.3	22.1	57.7	0.3	0.0	15.0
5-Year	7/31/2023	4.170	2.60	42.9	13.5	22.1	64.4	0.1	0.0	23.4
5-Year	8/31/2023	4.400	2.54	45.8	13.8	18.3	67.9	0.2	4.8	27.7
5-Year	10/2/2023	4.659	2.52	48.8	11.2	17.6	71.1	0.2	0.0	26.8
7-Year	7/31/2023	4.087	2.48	35.0	14.3	15.9	69.8	0.0	0.0	25.8
7-Year	8/31/2023	4.212	2.66	35.9	9.8	15.0	75.3	0.1	3.7	29.3
7-Year	10/2/2023	4.673	2.47	36.9	14.6	19.9	65.5	0.1	0.0	27.1
10-Year	7/17/2023	3.857	2.53	32.0	12.4	19.9	67.7	0.0	0.0	32.0
10-Year	8/15/2023	3.999	2.56	37.9	9.5	18.3	72.2	0.1	14.2	52.2
10-Year	9/15/2023	4.289	2.52	34.9	13.8	19.9	66.3	0.1	0.0	35.0
20-Year	7/31/2023	4.036	2.68	11.8	9.6	21.7	68.8	0.2	0.0	19.6
20-Year	8/31/2023	4.499	2.56	15.9	11.4	20.2	68.4	0.1	1.7	28.4
20-Year	10/2/2023	4.592	2.74	12.9	9.3	25.4	65.4	0.1	0.0	20.5
30-Year	7/17/2023	3.910	2.43	18.0	10.9	20.1	69.0	0.0	0.0	38.8
30-Year	8/15/2023	4.189	2.42	23.0	12.5	19.6	67.8	0.0	8.6	65.5
30-Year	9/15/2023	4.345	2.46	20.0	15.8	19.7	64.5	0.0	0.0	41.4
2-Year FRN	7/31/2023	0.125	2.58	23.8	46.7	0.0	53.3	0.2	0.0	0.0
2-Year FRN	8/25/2023	0.165	2.42	24.0	62.3	1.7	36.0	0.0	0.0	0.0
2-Year FRN	9/29/2023	0.180	3.42	24.0	32.6	0.4	67.0	0.0	0.0	0.0

TIPS										
Issue	Settle Date	Stop Out Rate (%)	Bid-to-Cover Ratio	Competitive Awards (\$bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards (\$bn)	SOMA "Add Ons" (\$bn)	10-Year Equivalent (\$bn)**
10-Year TIPS	7/31/2023	1.495	2.51	16.8	1.5	12.7	85.8	0.2	0.0	18.8
10-Year TIPS	9/29/2023	2.094	2.44	14.9	6.8	21.9	71.3	0.1	0.0	16.6
30-Year TIPS	8/31/2023	1.970	2.42	8.0	4.3	19.6	76.2	0.0	0.8	24.9

*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.