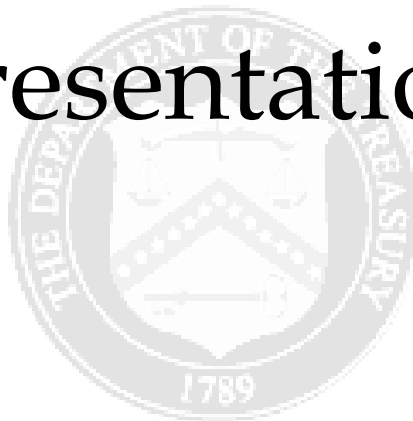


Treasury Presentation to TBAC



Office of Debt Management



Fiscal Year 2023 Q2 Report

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*All sources are from Treasury unless otherwise specified

Section I: Executive Summary



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

Receipts and Outlays through Q2 FY2023 (without calendar adjustment)

	\$ billions	Change from same period last year (\$ bn)	Change from same period last year (%)	As % of GDP	Change from same period last year (GDP %)
Total Receipts thru Q2 FY2023	\$2,048	-\$74	-3%	15.5%	-1.5%
Total Outlays thru Q2 FY2023	\$3,149	+\$359	+13%	23.8%	1.5%

*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)
Q3 FY2023	726	550 (Jun)
Q4 FY2023	733	600 (Sep)

*The cash balances for the next two quarter-ends 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 Net Privately-held Marketable Borrowing for the Next Three Fiscal Years from Various Sources***

Fiscal Year	Primary Dealers Median April 2023 (\$ billion)	OMB budget, March 2023 (\$ billion)	CBO Budget, February 2023 (\$ billion)
2023	2,080	2,328	2,143
2024	1,823	2,233	2,014
2025	1,595	1,809	1,844

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

Uncertainty regarding funding needs in FY2023 and FY2024 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.

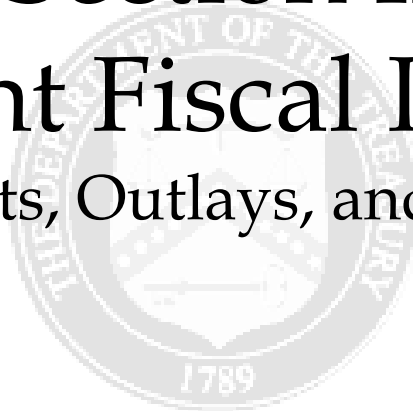
Latest Market Expectations for Treasury Financing in April:

- Primary dealers expected no changes to coupon auction sizes at the May refunding despite the fact dealers increased their aggregate median estimates for privately-held net marketable borrowing by \$600 billion for the FY23-FY25 period in May, relative to their February estimates.
- Given the forecasted financing gap over FY2023 and beyond, all dealers noted that bills could be used to address near term financing gaps because bills as a percentage of debt outstanding was close to the lower bound of the TBAC recommended range of 15 to 20 percent and demand for bills was expected to remain strong over the near term. Most dealers expect that coupon auction sizes will need to eventually rise.
- All dealers expected Treasury to keep TIPS issuance stable in the upcoming quarter.

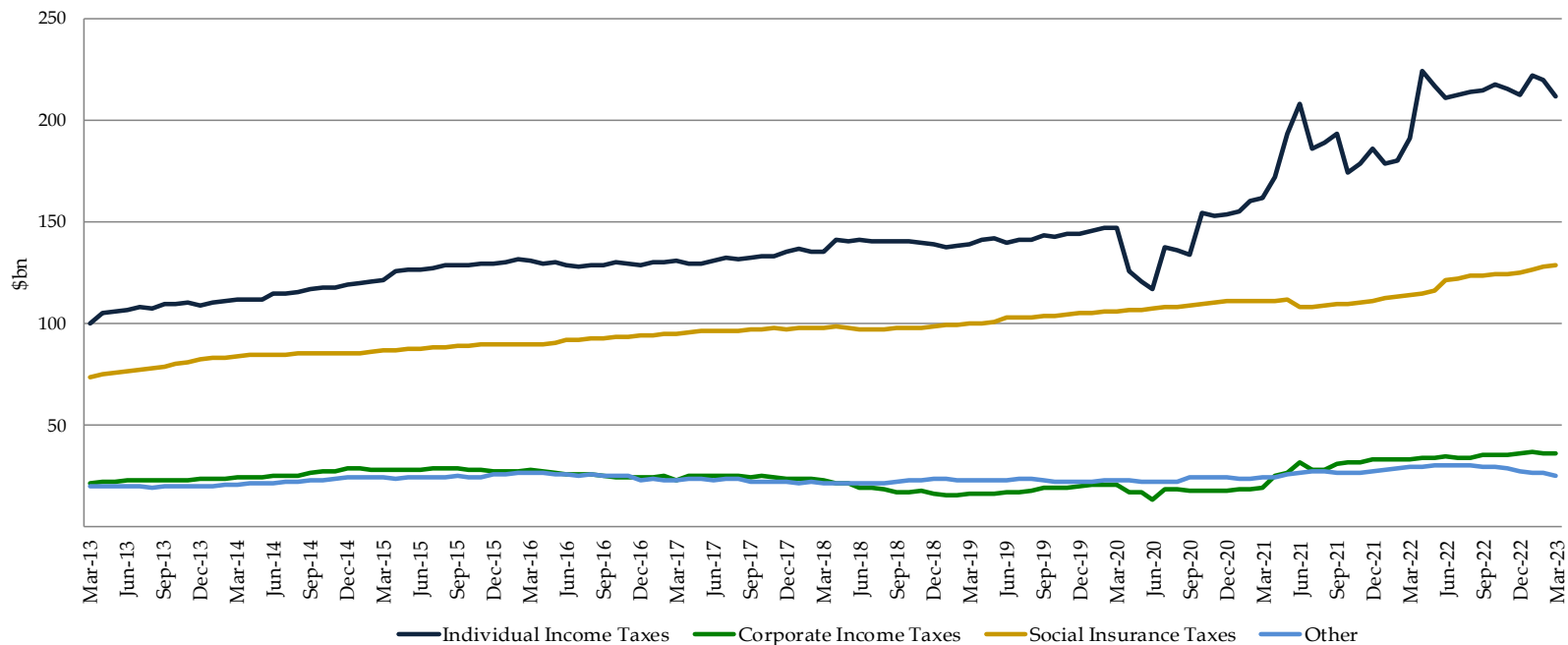
Section II:

Recent Fiscal Results

Receipts, Outlays, and Deficits



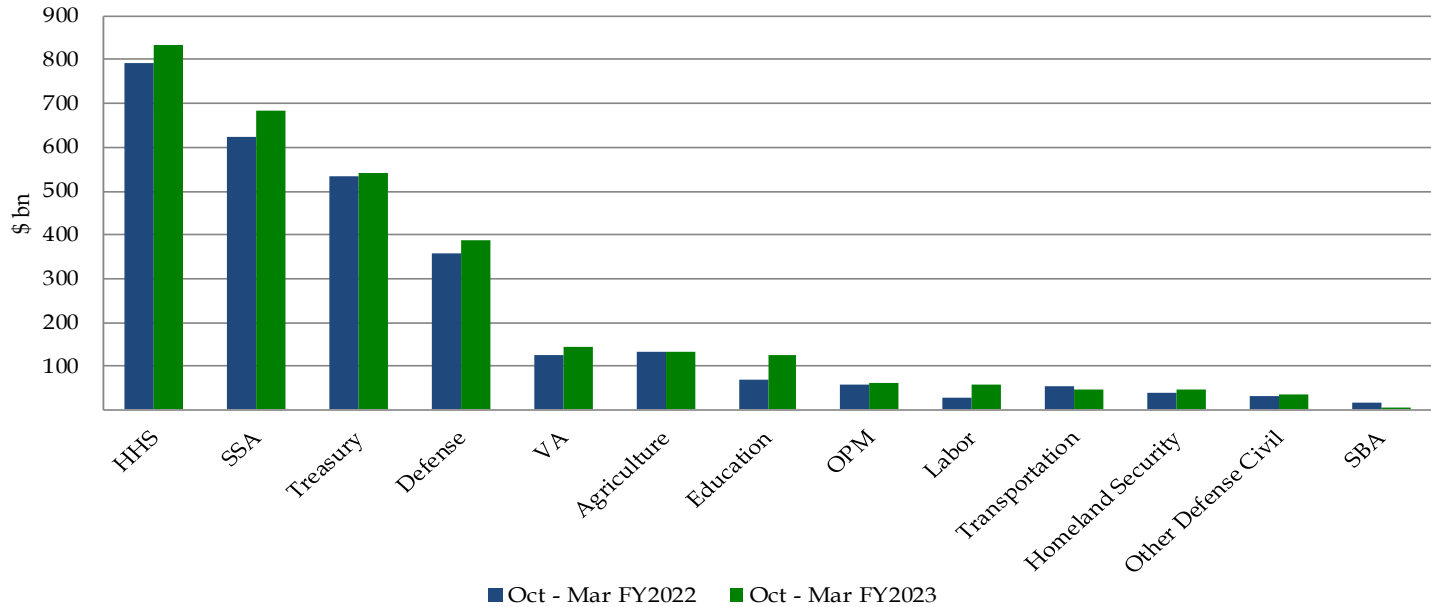
Monthly Receipt Levels (12-Month Moving Average)



Notable Receipt Category	YoY change thru Q2 FY23 (\$ billion)	YoY change thru Q2 FY23 (%)	Comments
Withheld & FICA taxes	+\$46	+3%	Due to higher wages and employment, partially offset by December's lower bonuses.
Non-withheld and SECA taxes	+\$2	+1%	Driven by general economic growth.
Individual refunds	-\$71	-59%	A decrease in cash due to elevated IRS processing of refunds over the fiscal year, including inventory.
Gross corporate taxes	+\$8	+5%	Driven by general economic growth.
Federal Reserve earnings	-\$60	-99%	Remittances have decreased year-over-year as administered rates moved higher.

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.

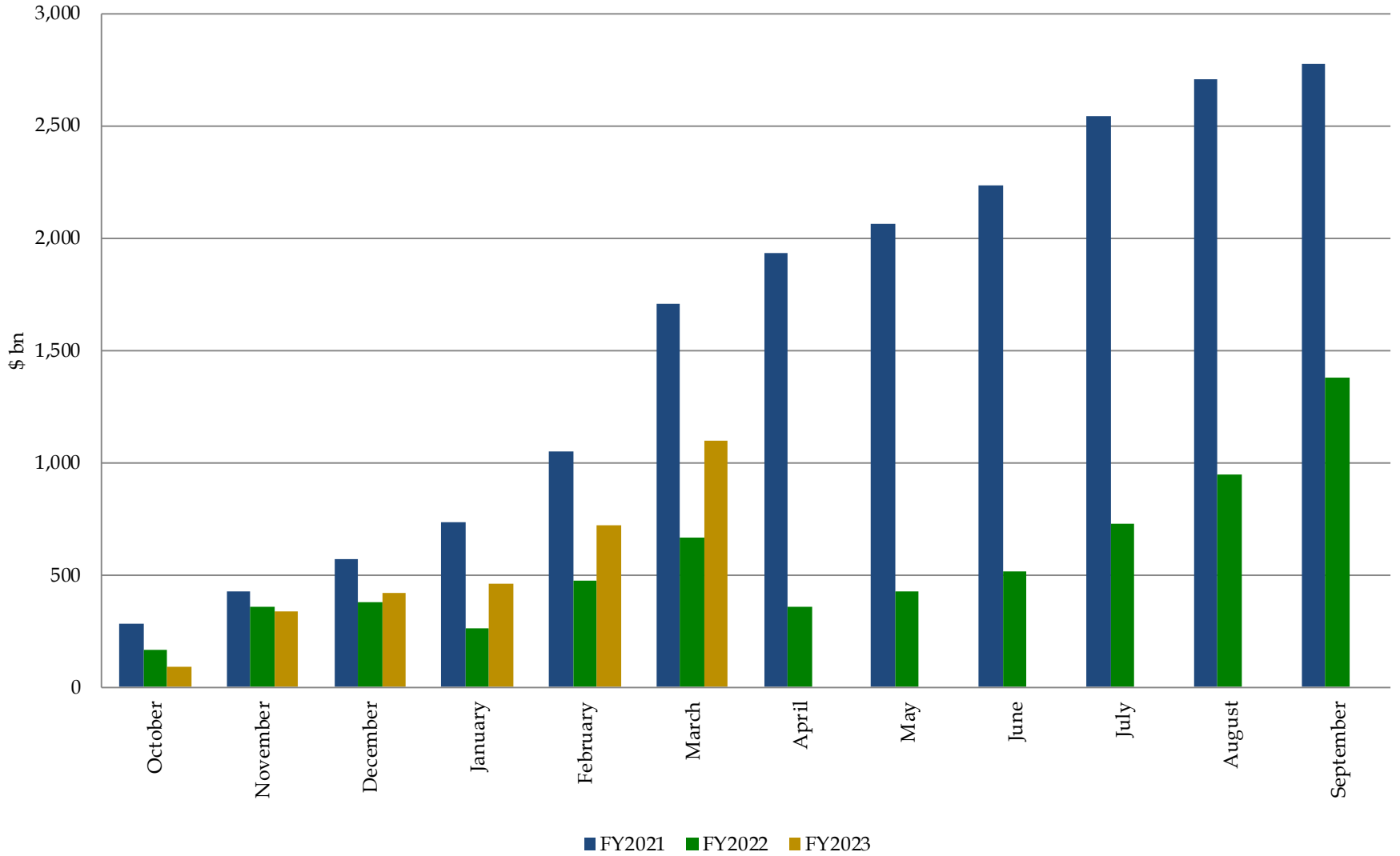
Largest Outlays



Notable Outlays Category	YoY change thru Q2 FY23 (\$ billion)	YoY change thru Q2 FY23 (%)	Comments
Social Security Administration (calendar adjusted)	+\$63	+10%	Primarily due to the COLA (8.7% this year compared to 5.7% last year) and increased number of beneficiaries.
Department of Education	+\$54	+76%	Due to several FY2023 upward modifications in Federal Direct Student Loan program subsidies.
Health and Human Services (calendar adjusted)	+\$41	+5%	Due to higher Medicare and Medicaid outlays.
Department of Labor	+\$31	+108%	Due to higher Pension Benefit Guaranty Corporation Special Financial Assistance payments.
Small Business Administration (calendar adjusted)	-\$17	-94%	Due to Paycheck Protection Program (PPP) and Economic Impact Disaster Loan (EIDL) expenditures that were recognized last year.
Other (not in the chart above)	+\$116	+155%	First, Federal Deposit Insurance Corporation outlays are \$29 billion higher. Second, 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:

Primary Dealer Median Estimates April 2023

	<u>CY2023</u>	<u>CY2024</u>	<u>CY2025</u>
	<u>% Change from Q4 to Q4</u>		
GDP			
<i>Real</i>	0.2	1.0	na
<i>Nominal</i>	3.8	3.4	na
Inflation			
<i>CPI Headline</i>	3.3	2.5	na
<i>CPI Core</i>	3.9	2.6	na
	<u>Fourth Quarter Levels</u>		
Unemployment Rate (%)	4.2	4.7	na
	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>
Deficits (\$bil)	\$1,400	\$1,575	\$1,650

- Most Recent CBO and OMB Estimates:

OMB Estimates March 2023

	<u>CY2023</u>	<u>CY2024</u>	<u>CY2025</u>
	<u>% Change from Q4 to Q4</u>		
GDP			
<i>Real</i>	0.4	2.1	2.4
<i>Nominal</i>	3.2	4.3	4.6
Inflation			
<i>CPI Headline</i>	3.0	2.3	2.3
	<u>Fourth Quarter Levels</u>		
Unemployment Rate (%)	4.6	4.5	4.4
	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>
Deficits (\$bil)	\$1,570	\$1,847	\$1,672

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>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>
Deficits (\$bil)	\$1,410	\$1,576	\$1,752

Note: Economic assumptions for OMB and CBO forecasts were established in November 2022 and December 2022, respectively.

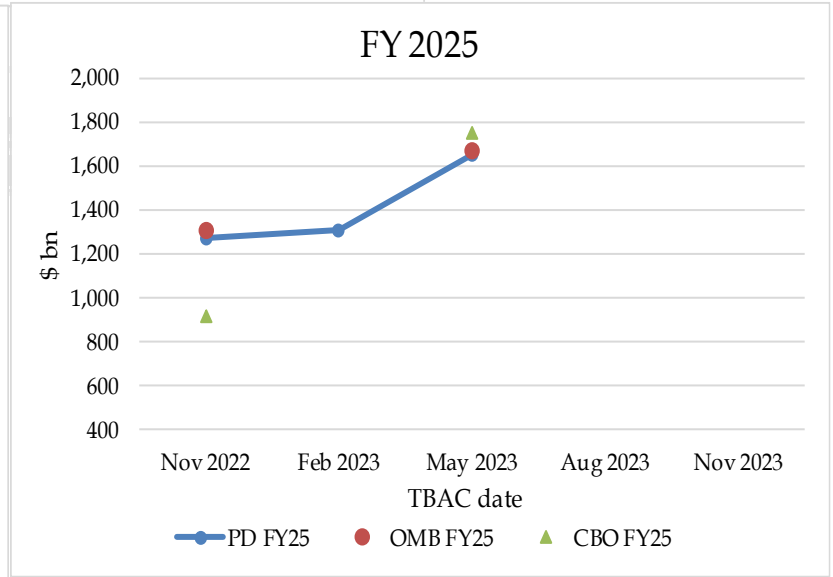
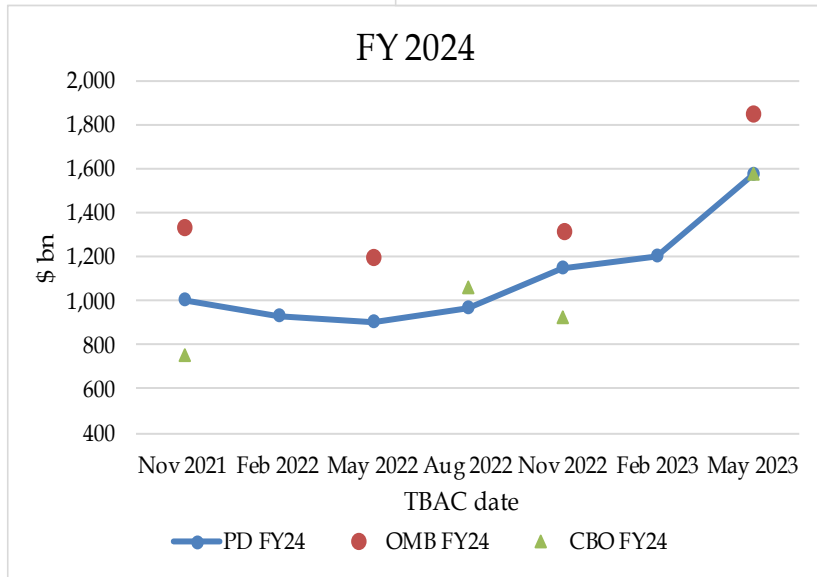
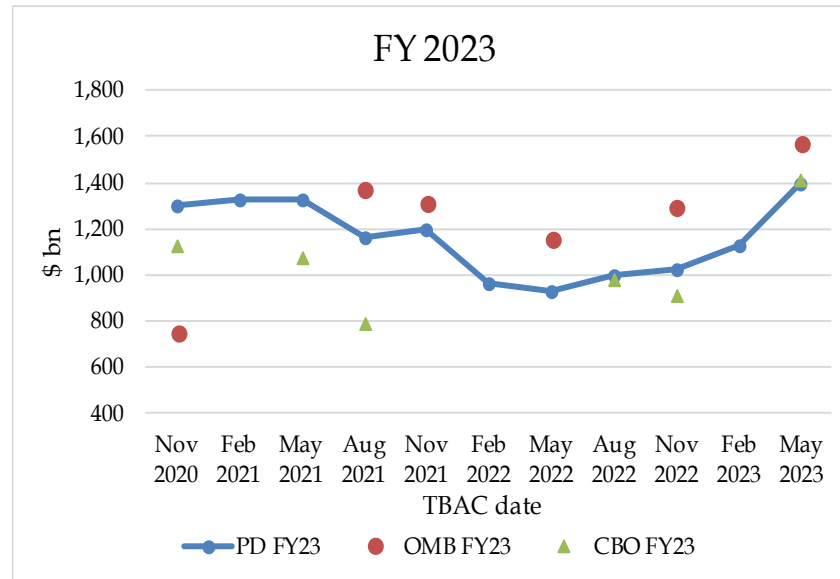
Recent Deficit Forecasts

- Primary dealers increased their deficit estimates in April relative to estimates they provided in January. Their changes reflected a slower economy, possible recession and higher interest costs.
- Dealers generally suggested that risks were asymmetrical 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.

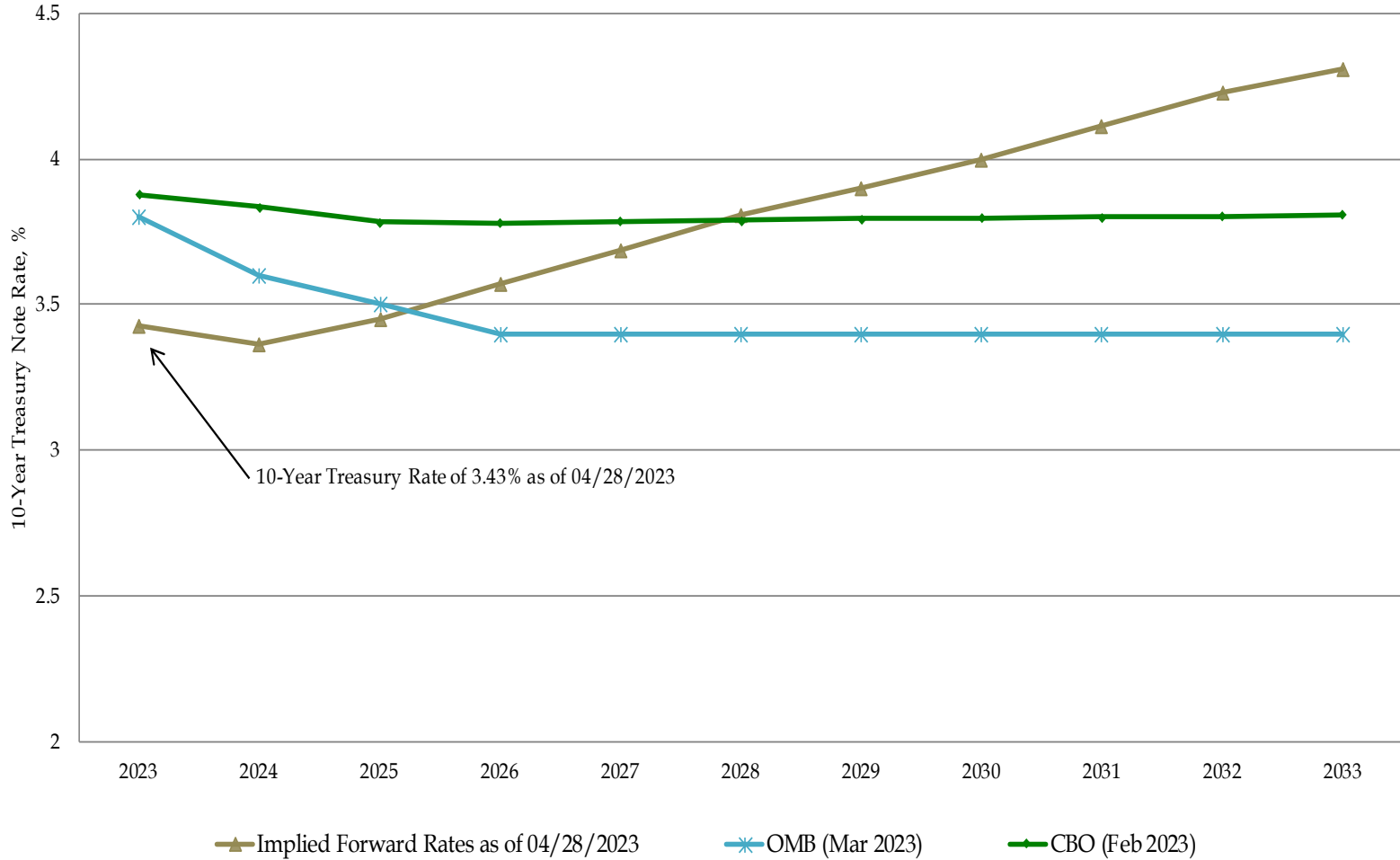
Deficit Estimates (\$ billion)	PD 25th Percentile	Primary Dealers (Median)	PD 75th Percentile	Change from Prior Quarter (Median)	OMB	CBO
FY2023	1,338	1,400	1,435	270	1,570	1,410
FY2024	1,413	1,575	1,600	375	1,847	1,576
FY2025	1,413	1,650	1,758	341	1,672	1,752
As of date	Apr-23	Apr-23	Apr-23		Mar-23	Feb-23

- OMB projections are using estimates are from Table S-1 of “Budget of The U.S. Government Fiscal Year 2024,” March 2023.
- CBO projections are using estimates are from Table 1-1 of “The Budget and Economic Outlook: 2023 to 2033,” February 2023.


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



Interest Rate Assumptions: 10-Year Treasury Note



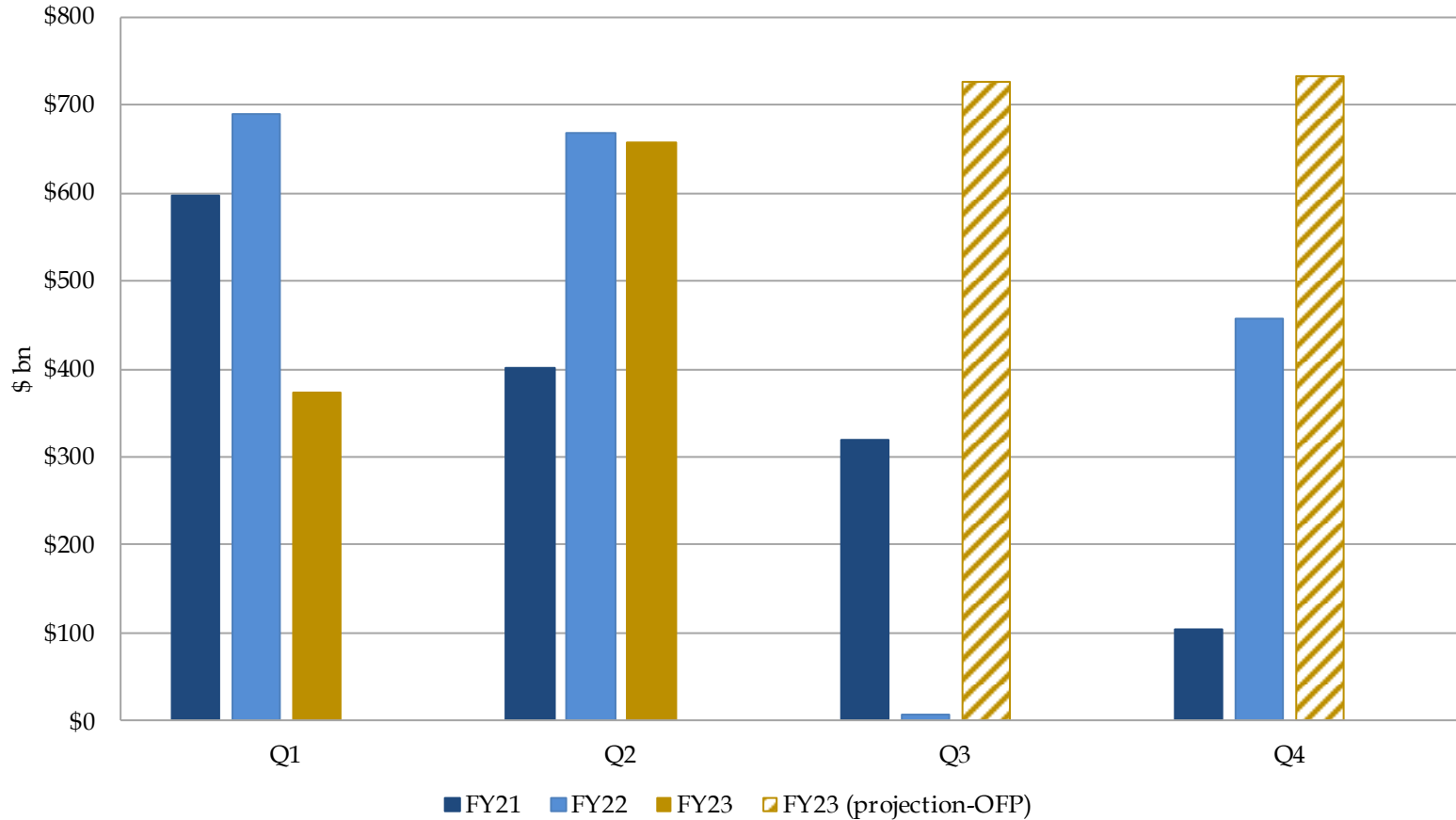
Section IV:
Estimated Borrowing Needs and
Financing Implications



Assumptions for Financing Section (pages 16 to 20)

- Portfolio and SOMA holdings as of 3/31/2023.
- Estimates assume privately announced issuance sizes and patterns remain constant for nominal coupons, TIPS, and FRNs given the issuance sizes in effect in April 2023, while using total bills outstanding of ~\$4.1 trillion.
- The principal on the TIPS securities was accreted to each projection date based on market ZCIS levels as of 3/31/2023.
- 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.
- All estimates assume enactment of a debt limit suspension or increase.

Privately-Held Net Marketable Borrowing Outlook



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

Sources of Privately-Held Financing in FY23 Q3

April - June 2023	
Assuming Constant Coupon Issuance Sizes*	
Treasury Announced Net Marketable Borrowing**	726
Net Coupon Issuance	248
Implied Change in Bills	478

Sources of Privately-Held Financing in FY23 Q4

July - September 2023	
Assuming Constant Coupon Issuance Sizes*	
Treasury Announced Net Marketable Borrowing**	733
Net Coupon Issuance	159
Implied Change in Bills	574

Security	April - June 2023 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance			Security	July - September 2023 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net		Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	68	80	(12)	204	234	(30)	2-Year FRN	68	80	(12)	272	314	(42)
2-Year	126	154	(28)	378	451	(73)	2-Year	84	115	(31)	462	566	(104)
3-Year	120	97	23	360	226	134	3-Year	120	108	12	480	334	146
5-Year	129	67	62	387	165	222	5-Year	86	43	43	473	209	264
7-Year	105	68	37	315	246	69	7-Year	70	51	19	385	297	88
10-Year	99	42	57	297	133	164	10-Year	99	41	58	396	174	222
20-Year	39	0	39	117	0	117	20-Year	27	0	27	144	0	144
30-Year	57	0	57	171	7	164	30-Year	57	7	50	228	14	214
5-Year TIPS	40	43	(3)	80	43	37	5-Year TIPS	0	0	0	80	43	37
10-Year TIPS	15	0	15	62	50	12	10-Year TIPS	32	48	(16)	94	98	(4)
30-Year TIPS	0	0	0	9	0	9	30-Year TIPS	8	0	8	17	0	17
Coupon Subtotal	798	550	248	2,380	1,555	824	Coupon Subtotal	651	492	159	3,031	2,048	983

* Keeping announced issuance sizes and patterns constant for nominal coupons, TIPS, and FRNs based on changes made before the May 2023 refunding.

** Assumes an end-of-June 2023 and end-of-September 2023 cash balances of \$550 billion and \$600 billion respectively versus a beginning-of-April 2023 cash balance of \$178 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>

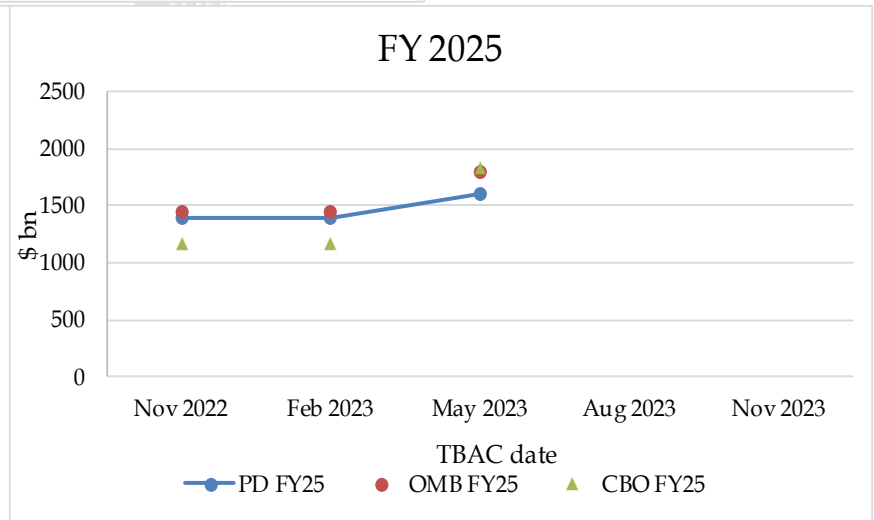
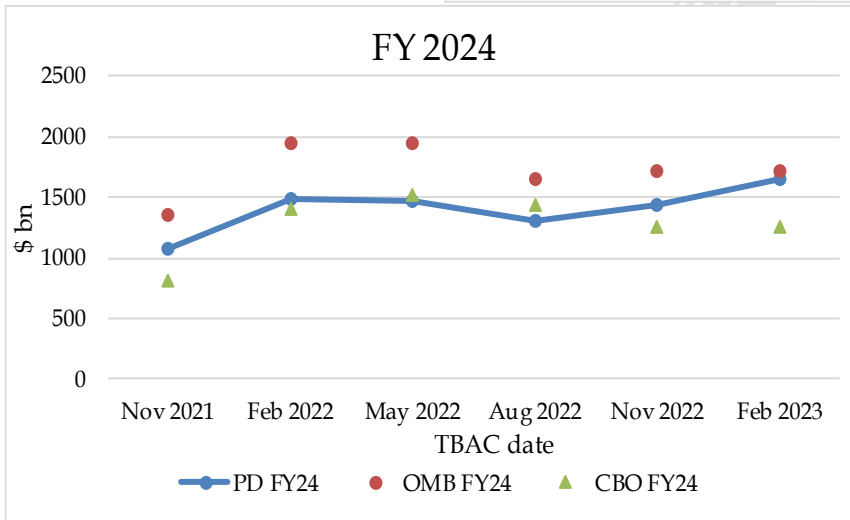
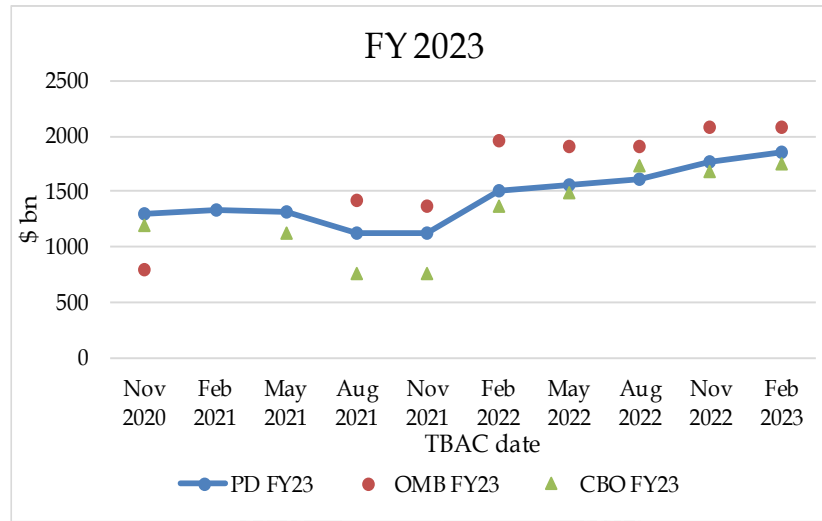
Longer-Term Privately-Held Net Marketable Borrowing Estimates and SOMA Redemption Assumptions

FY 2023-2025 Deficits and Privately-Held Net Marketable Borrowing Estimates, in \$ billions

	Primary Dealer			OFP	OMB	CBO
	25th	Median	75th			
FY 2023 Deficit	1,338	1,400	1,435		1,570	1,410
FY 2024 Deficit	1,413	1,575	1,600		1,847	1,576
FY 2025 Deficit	1,413	1,650	1,758		1,672	1,752
FY 2023 SOMA Redemption	720	720	720	698		
FY 2024 SOMA Redemption	134	360	555			
FY 2025 SOMA Redemption	0	0	0			
FY 2023 Privately-Held Net Marketable Borrowing*	1,947	2,080	2,179	2,489	2,328	2,143
FY 2024 Privately-Held Net Marketable Borrowing*	1,495	1,823	2,075		2,233	2,014
FY 2025 Privately-Held Net Marketable Borrowing*	1,463	1,595	1,798		1,809	1,844
Estimates as of:	Apr-23			May-23	Mar-23	Feb-23

- *All privately-held net marketable borrowing estimates of are “normalized” using:
 - 1) the median Primary Dealer’s estimates for SOMA redemptions, and
 - 2) assuming OFP’s end of fiscal year 2023 cash balance of \$600 billion, held constant in out years.
- OMB projections are using estimates are from Table S-1 of “Budget of The U.S. Government Fiscal Year 2024,” March 2023.
- CBO projections are using estimates are from Table 1-1 of “The Budget and Economic Outlook: 2023 to 2033,” February 2023.
- OFP’s SOMA redemption estimate excludes securities maturing on 9/30/2023 (Saturday).

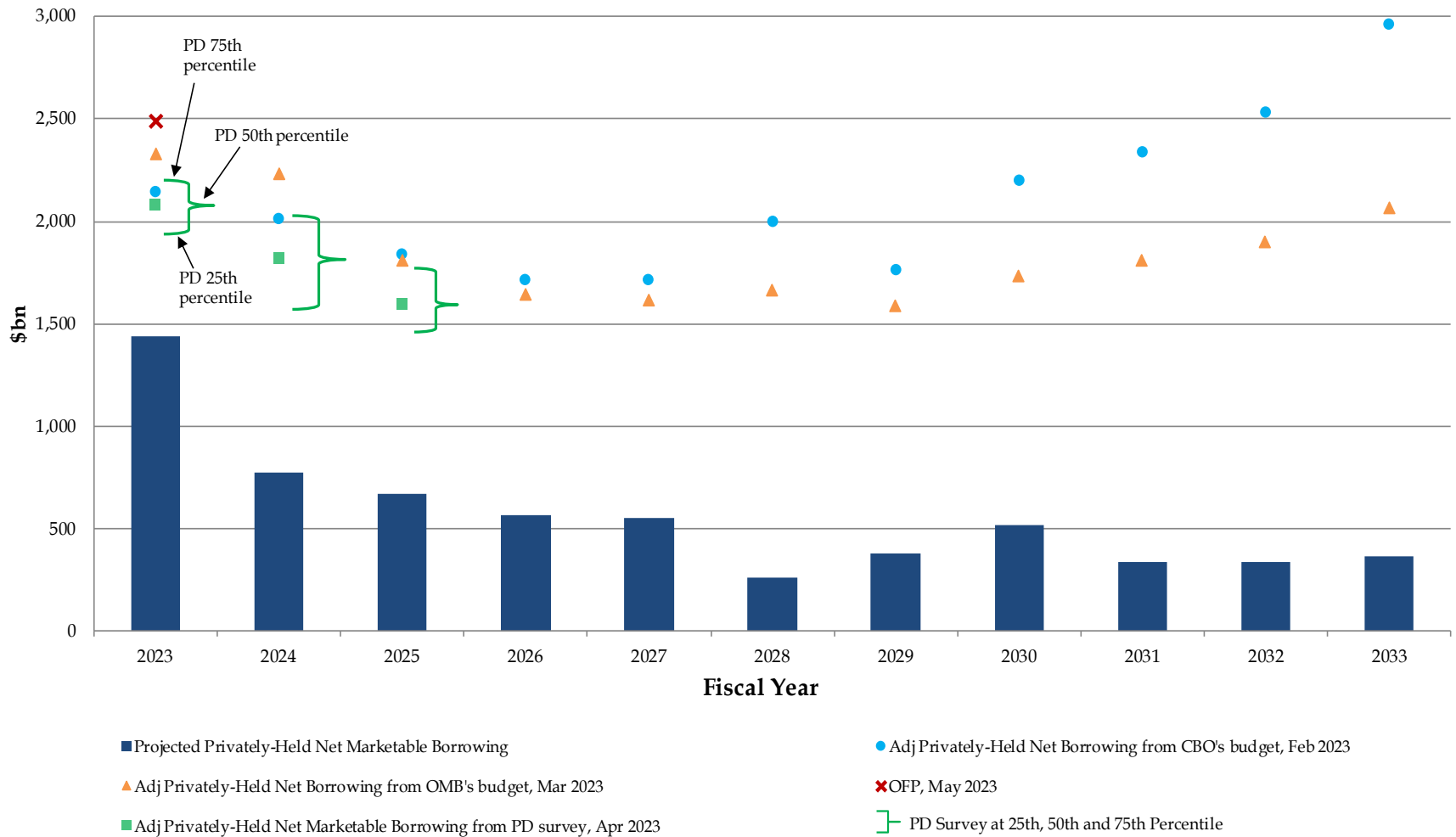
Evolution of Median Primary Dealer, OMB, and CBO Privately-Held Net Marketable Borrowing Estimates*



* 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.

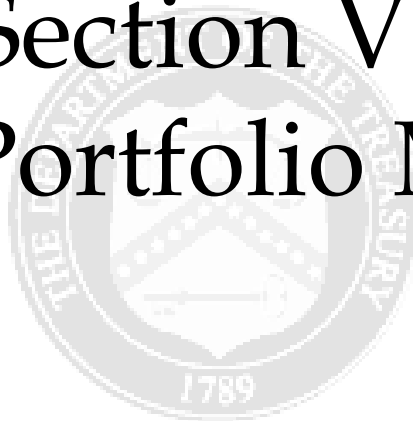
Projected Privately-Held Net Marketable Borrowing

Assuming Private Coupon Issuance & Total Bills Outstanding Remain Constant as of 03/31/2023*



*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 "Budget of The U.S. Government Fiscal Year 2024," March 2023. CBO's borrowing projections are using estimates from Table 1-1 of "The Budget and Economic Outlook: 2023 to 2033," February 2023. OMB and CBO borrowing estimates from FY23 to FY25 are normalized to privately-held net borrowing after adding PD survey median SOMA redemption assumptions for FY23/24/25. In addition, all privately-held net borrowing estimates are normalized with OFP FY23 ending cash balance of \$600 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.

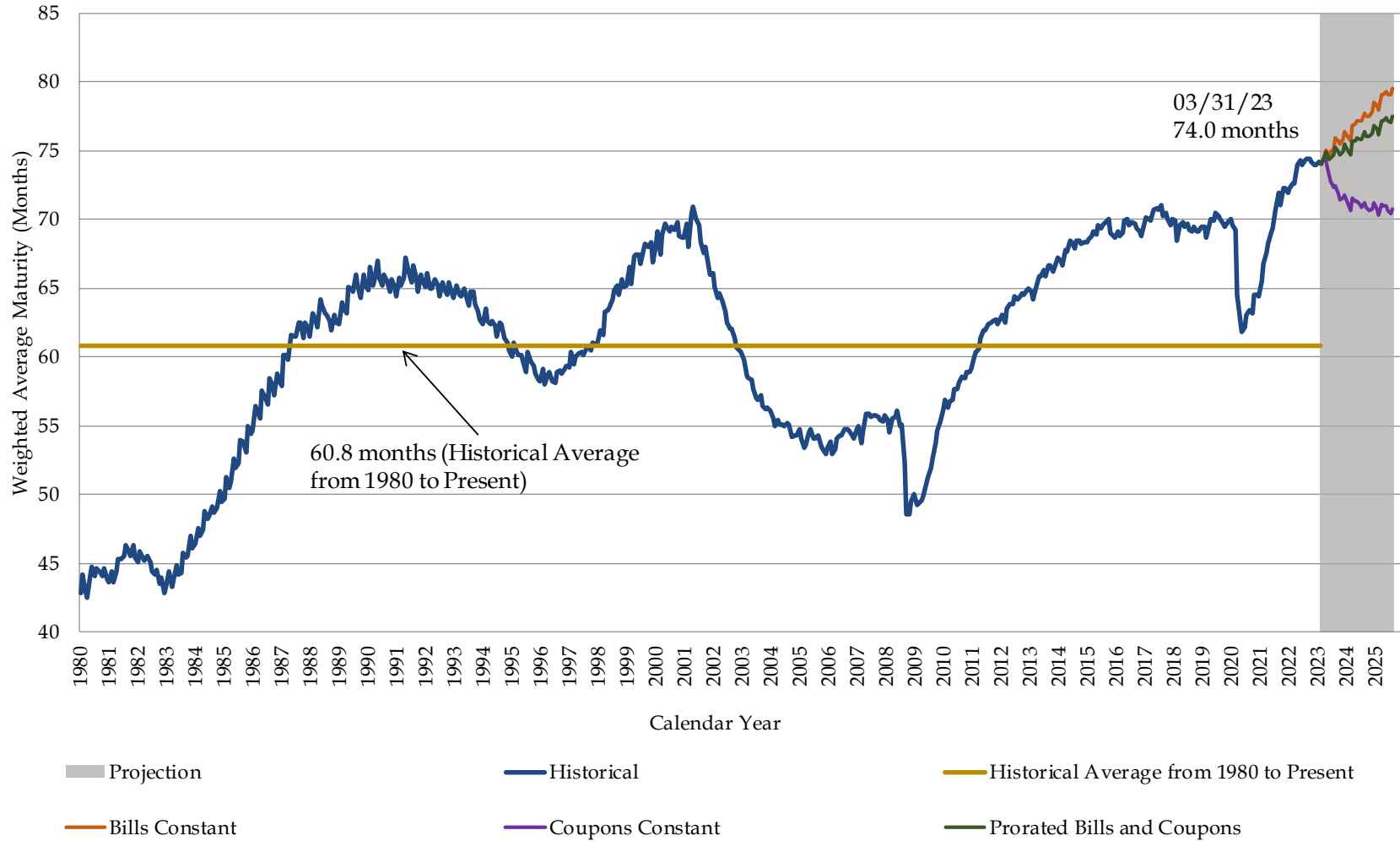
Projections illustrate how various portfolio metrics could evolve under three hypothetical financing scenarios. The scenarios were chosen to illustrate a potential range of portfolio metric outcomes based on hypothetical issuance choices.

The scenarios are:

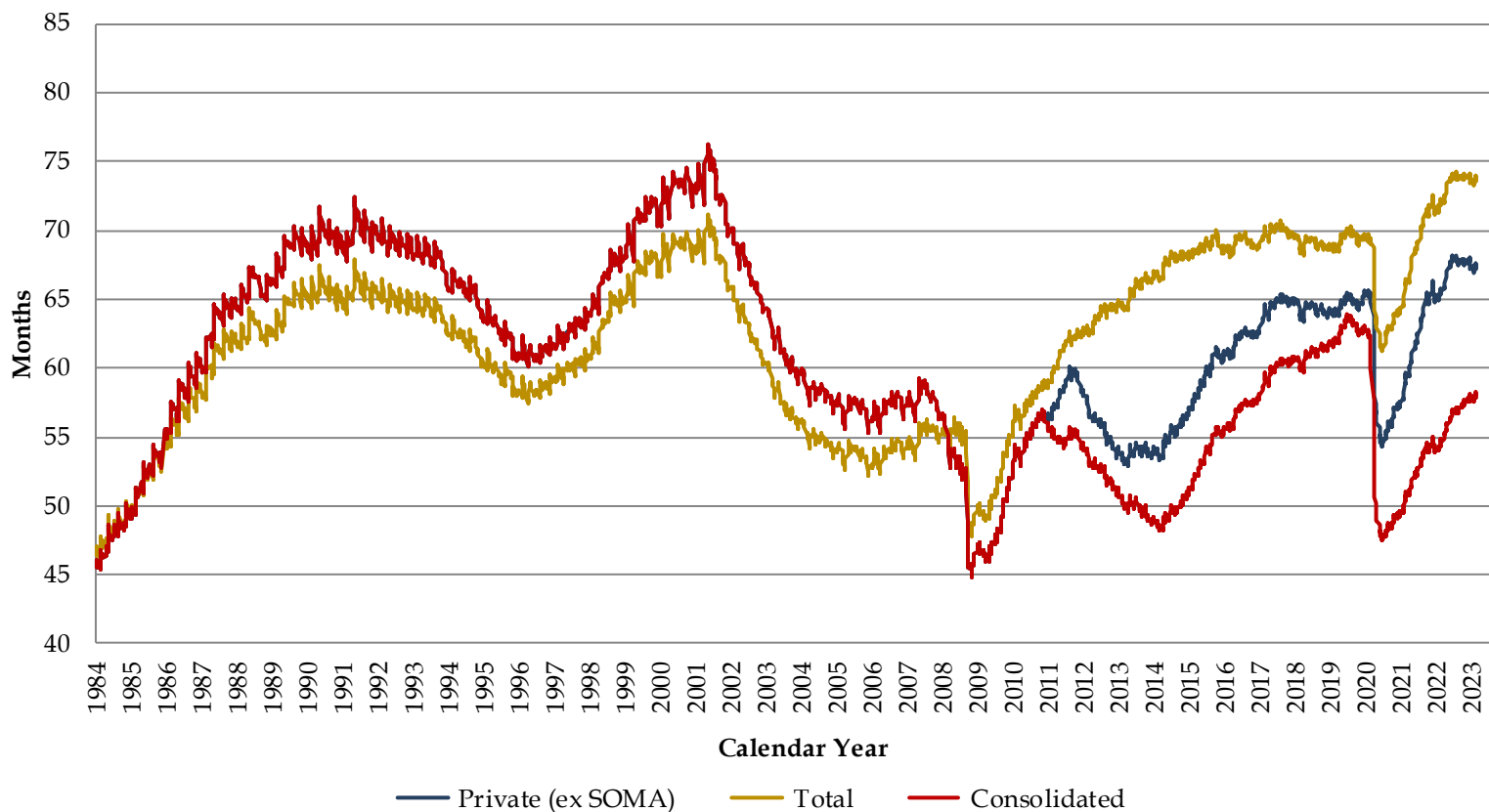
- 1) ***“Coupons Constant”***: Treasury maintains **coupon, FRN, and TIPS auction sizes constant** starting in April 2023 and addresses any changes in financing needs by only increasing or decreasing T-bill auction sizes;
- 2) ***“Bills Constant”***: Treasury maintains **T-bills aggregate supply constant** at \$4.1 trillion as of 3/31/2023 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 16.7% as of 3/31/2023 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 FY23, FY24, & FY25 (see page 18).

Weighted Average Maturity of Marketable Debt Outstanding



Consolidated WANRR Calculation*

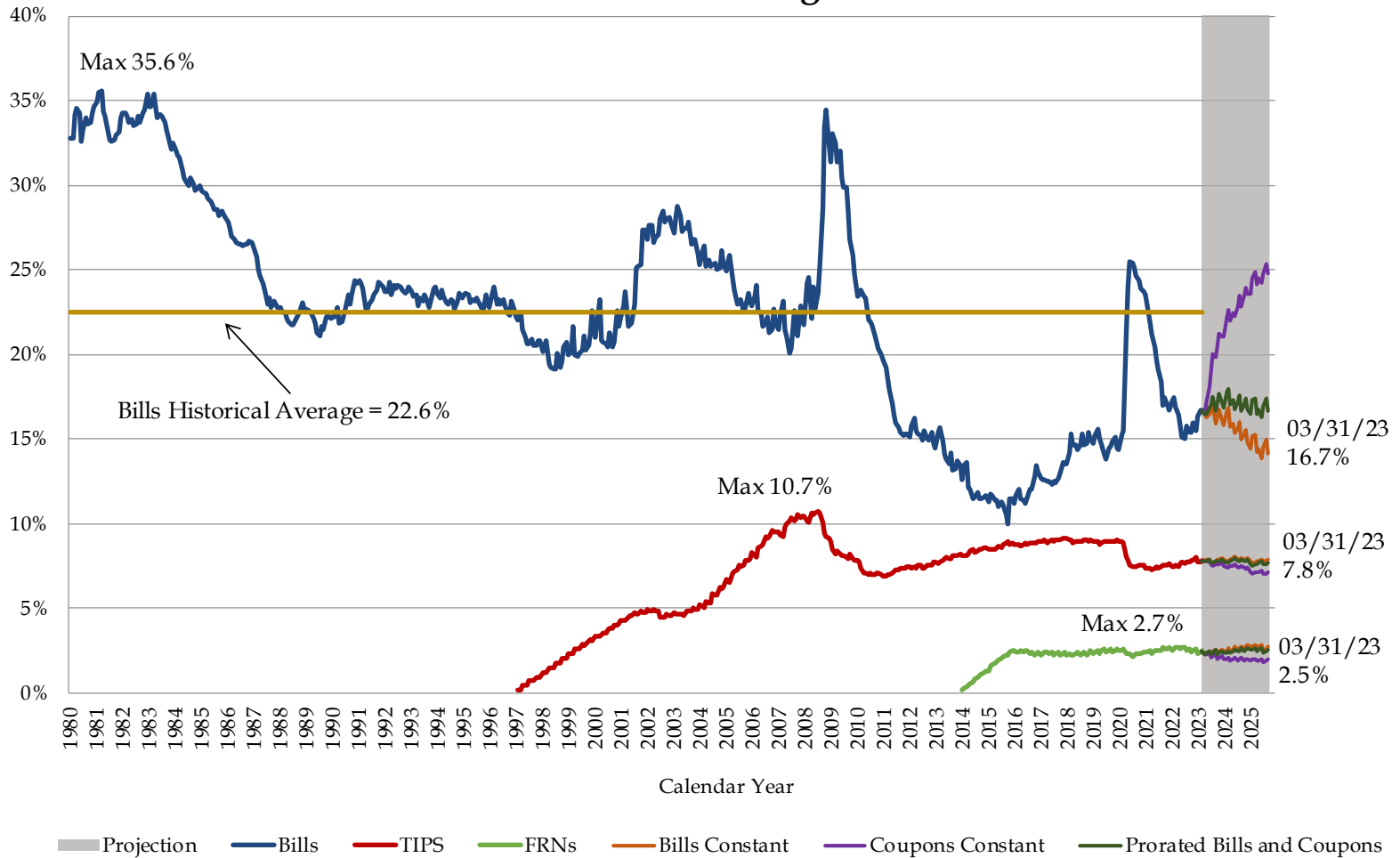


* Weighted Average Next Rate Reset (WANRR) is a “Weighted Average Maturity” metric that attempts to adjust for the floating rate aspect of some Treasury debt. The WANRR is the average time until the outstanding debt’s interest rate is set to a new interest rate. For bills and fixed rate notes and bonds,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

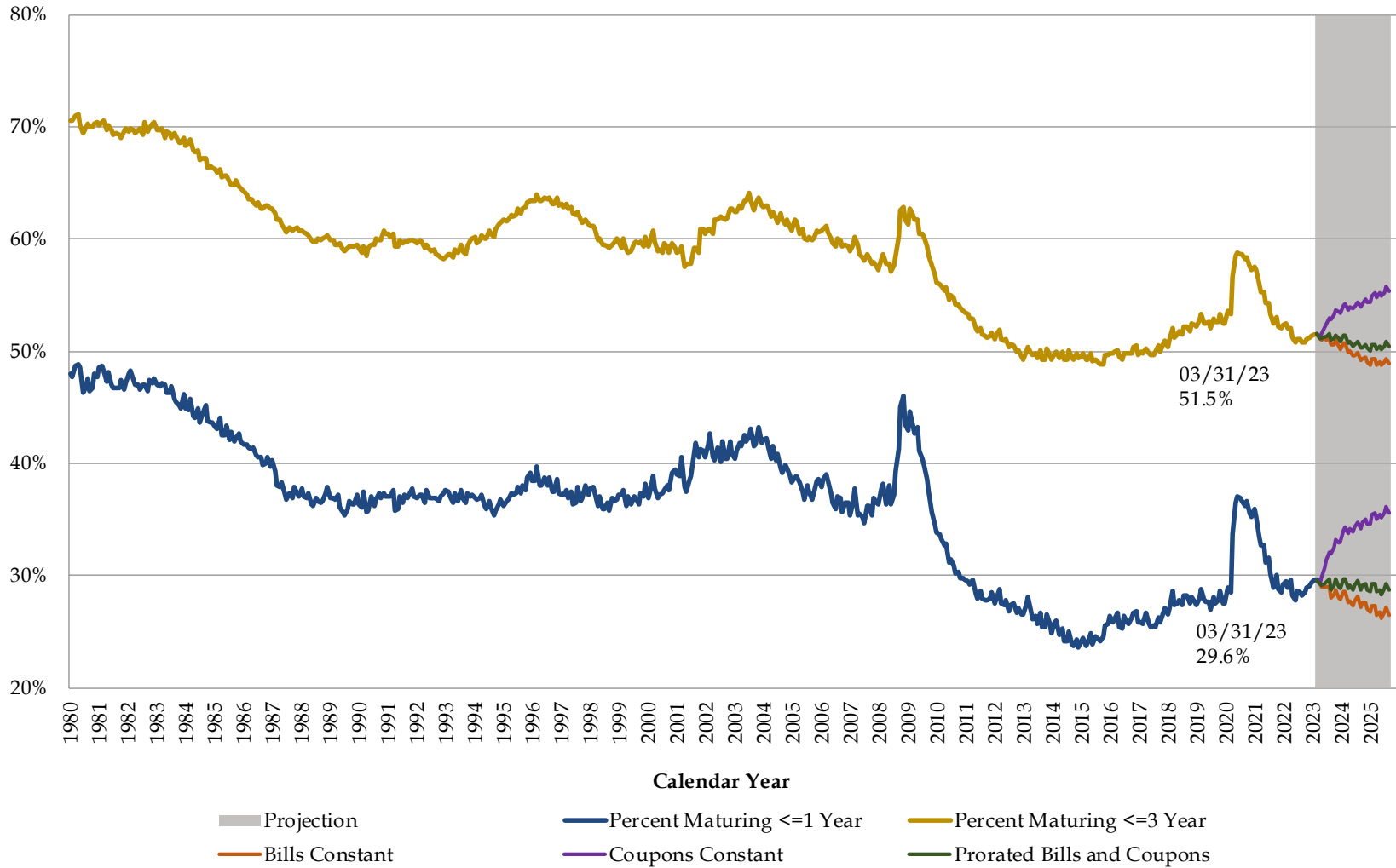
In contrast, for floating rate obligations, the time between the next rate reset date or maturity date is examined and the shorter period is used in the calculation.

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

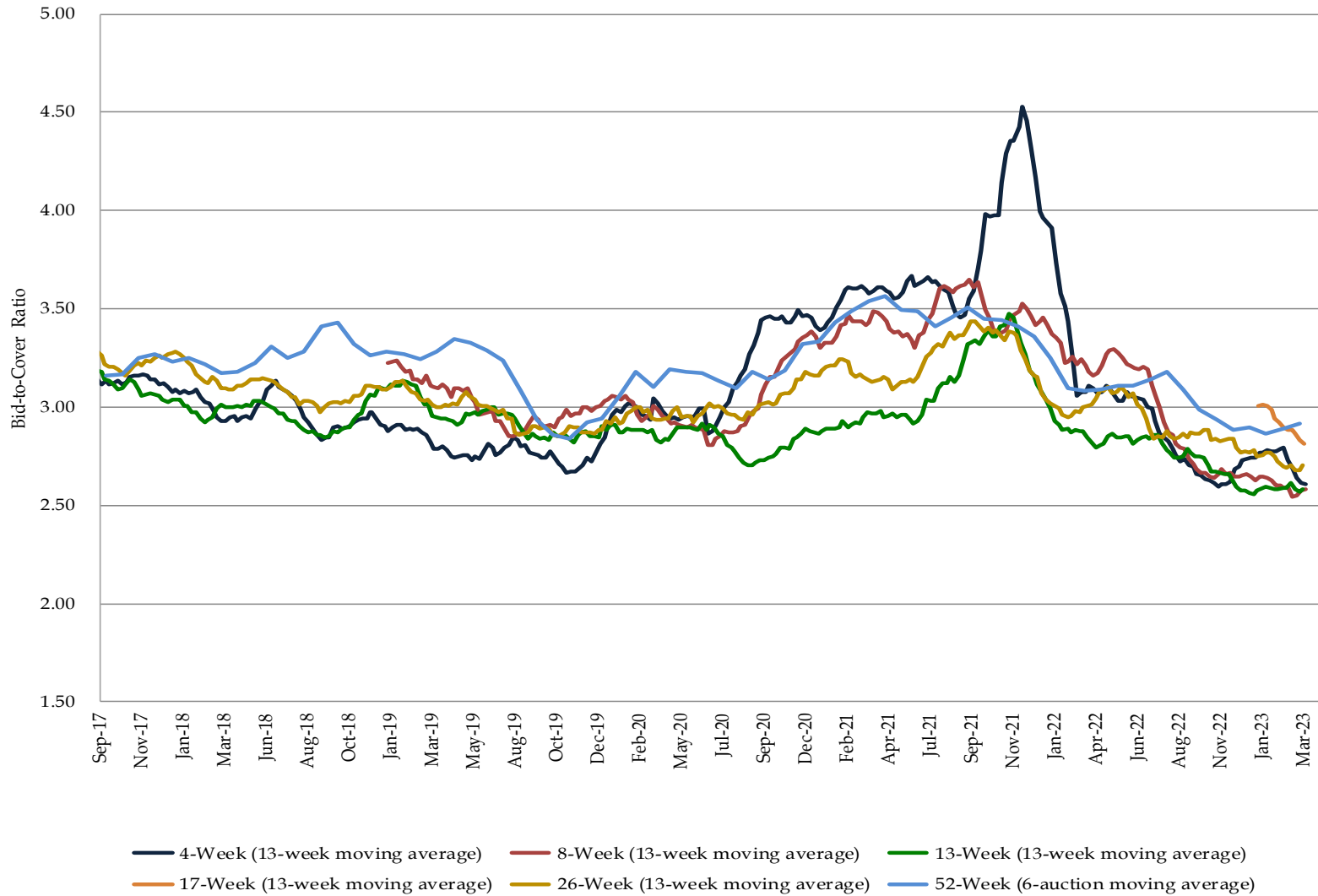


Section VI: Select Demand Metrics

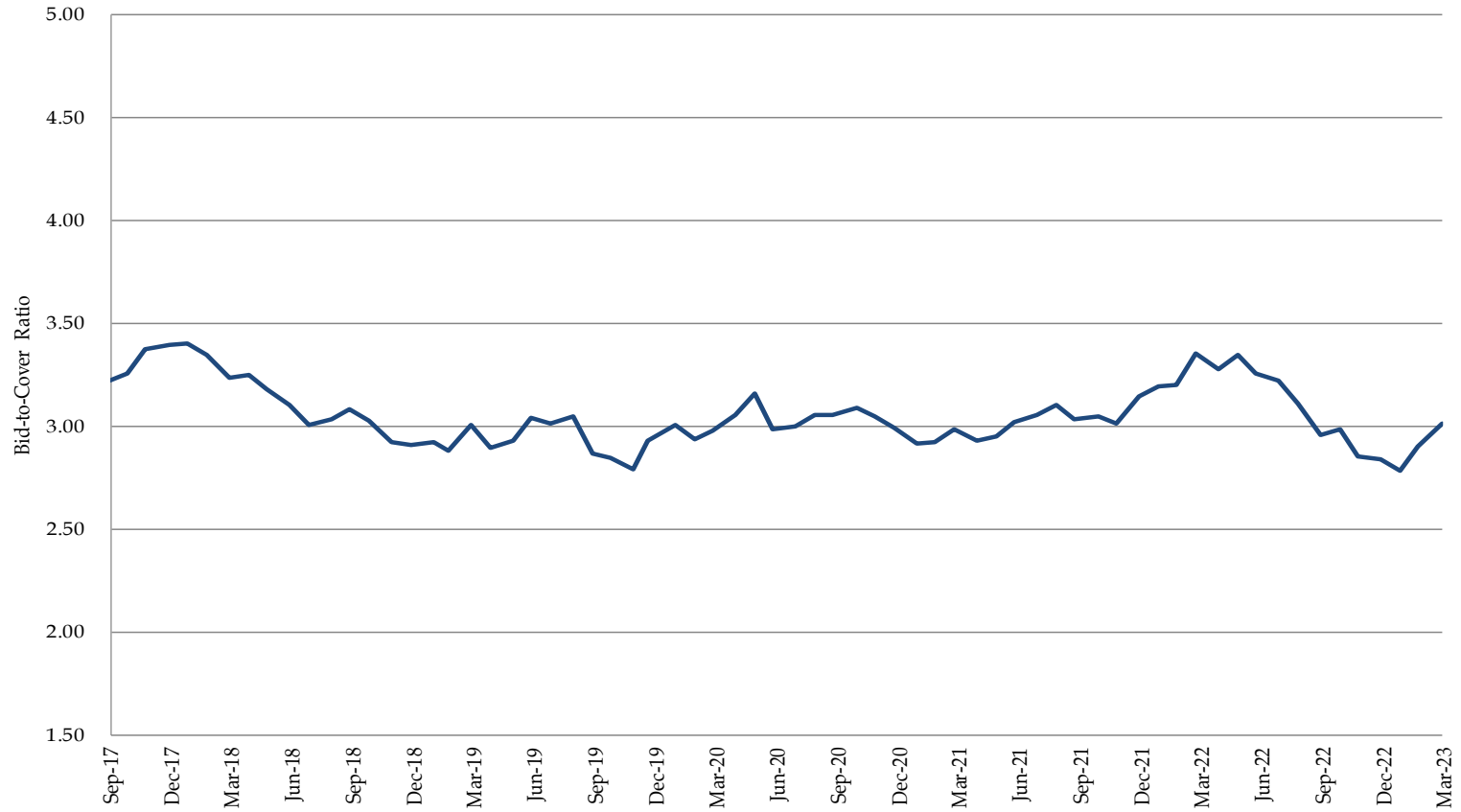
Bid-to-Cover Data, Investor Class Data,
Direct & Primary Dealer Awards, and Foreign Demand



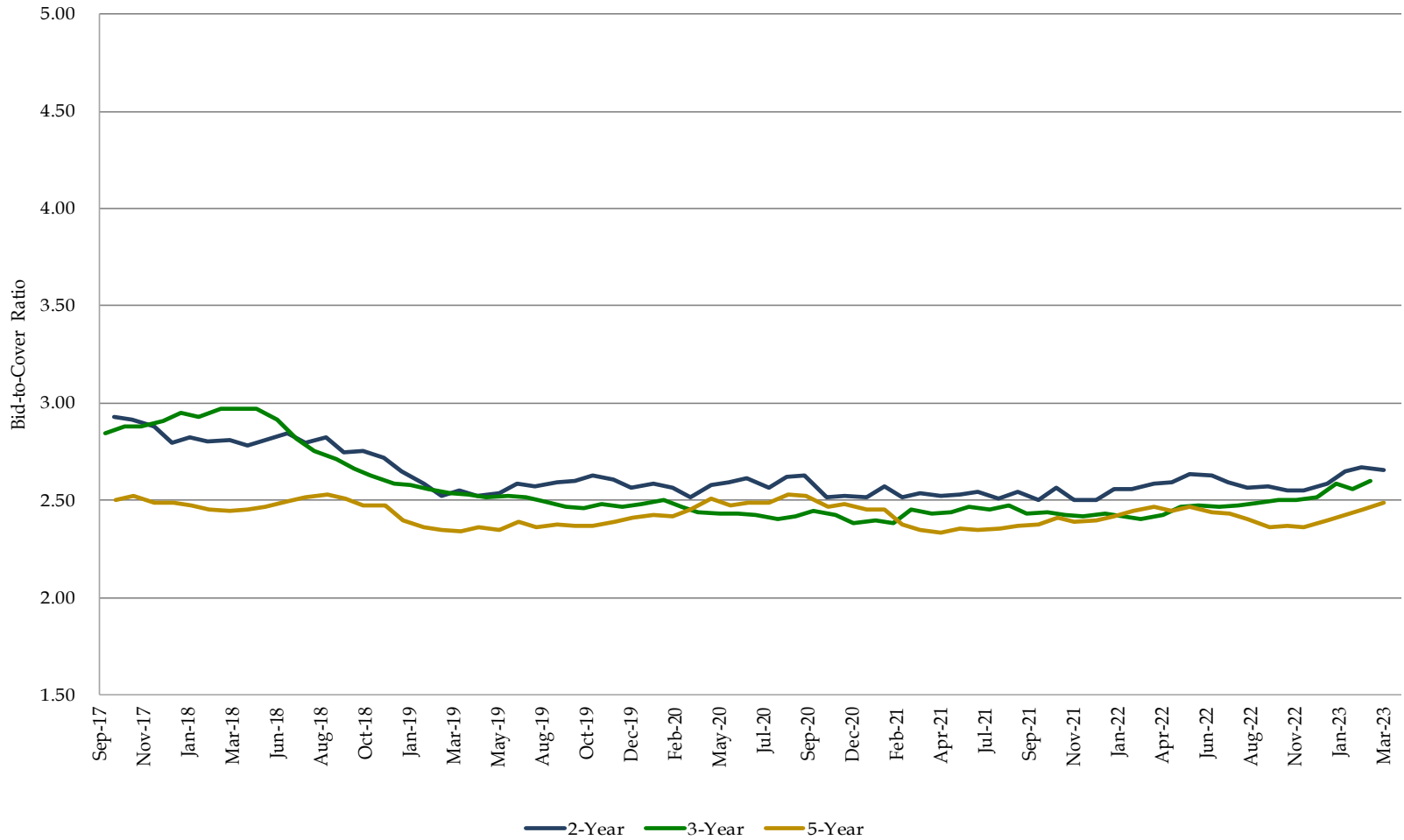
Bid-to-Cover Ratios for Treasury Bills



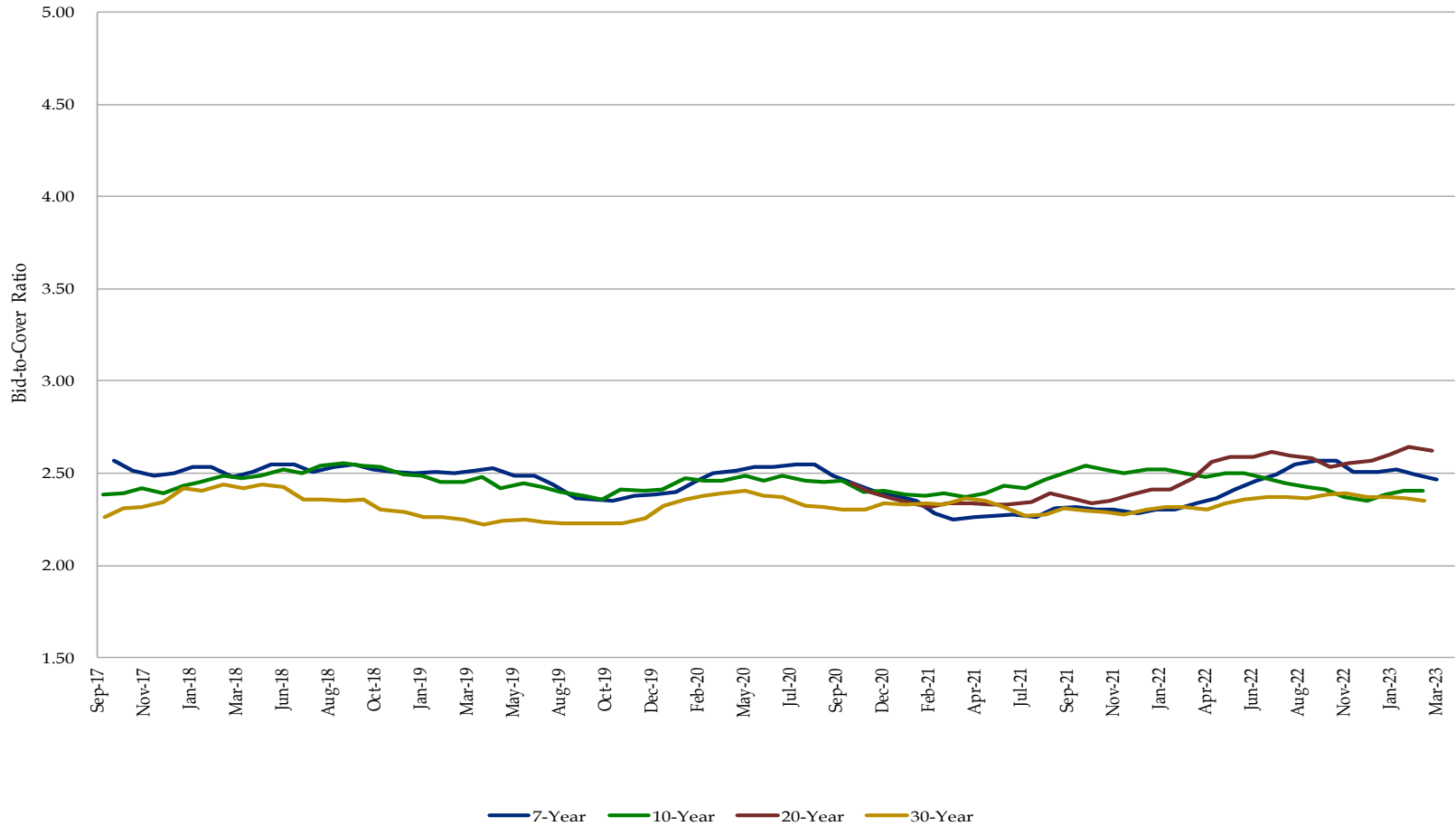
Bid-to-Cover Ratios for FRNs (6-Month Moving Average)



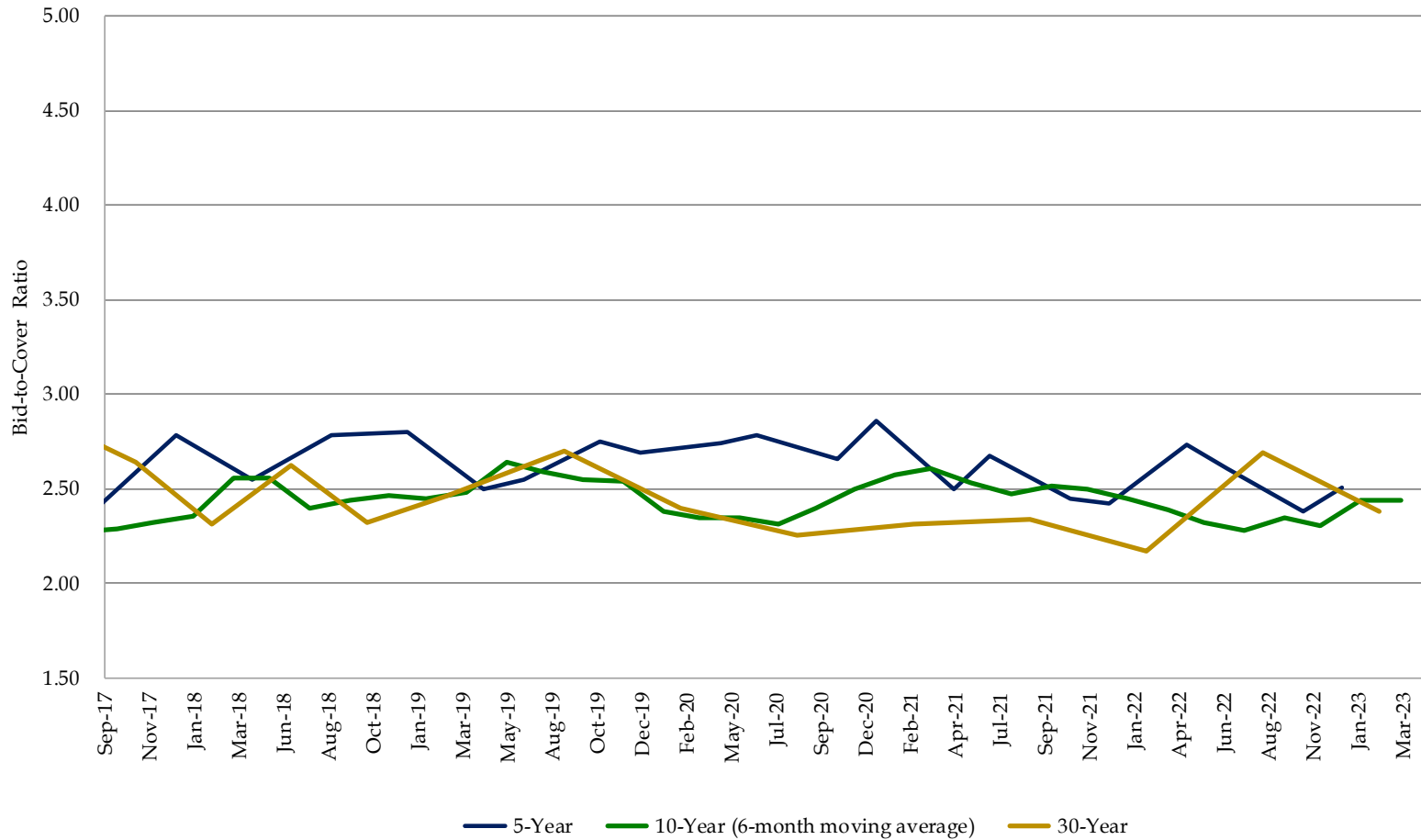
Bid-to-Cover Ratios for 2-, 3-, and 5-Year Nominal Securities (6-Month Moving Average)



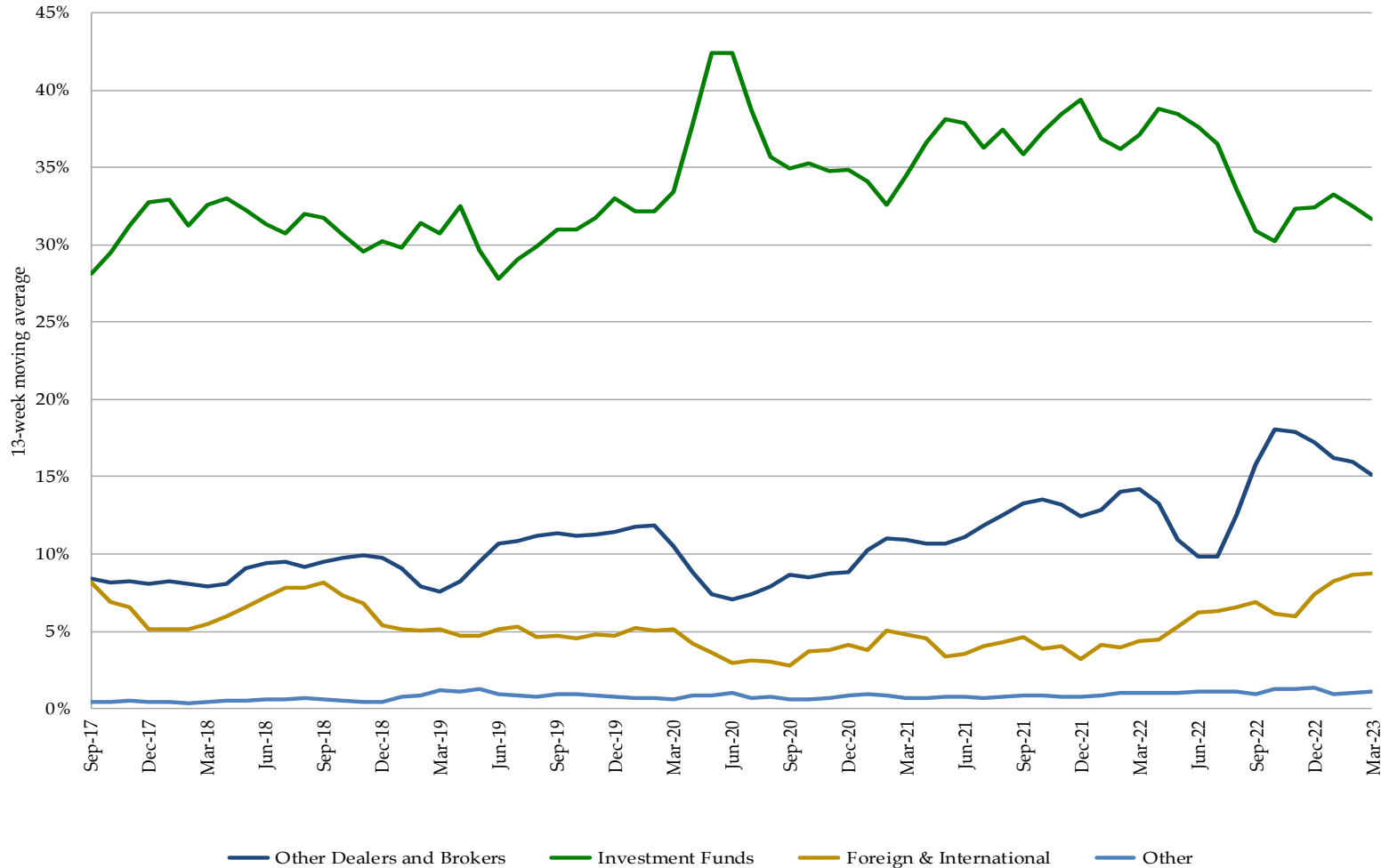
Bid-to-Cover Ratios for 7-, 10-, 20-, and 30-Year Nominal Securities (6-Month Moving Average)



Bid-to-Cover Ratios for TIPS

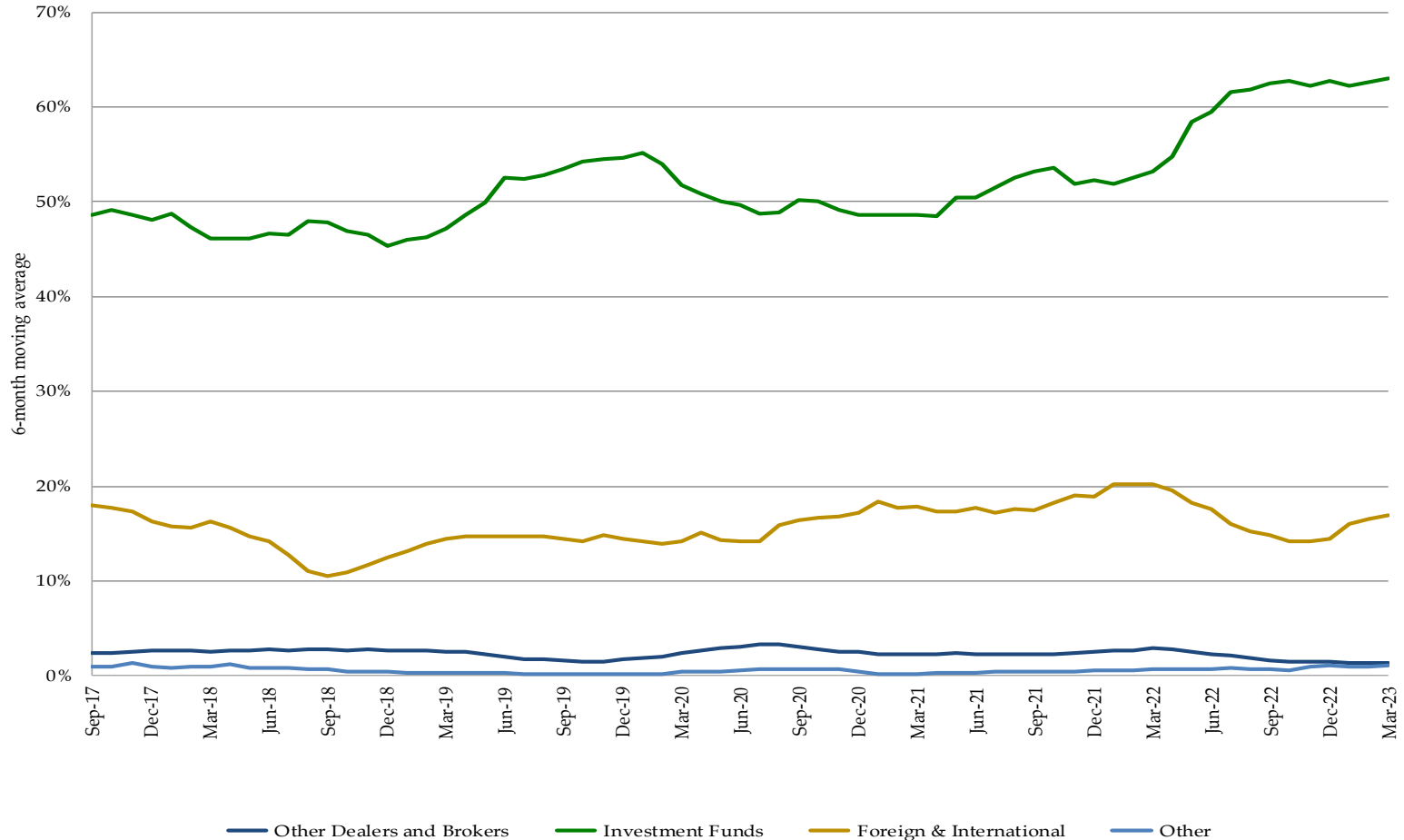


Percent Awarded in Bill Auctions by Investor Class (13-Week Moving Average)



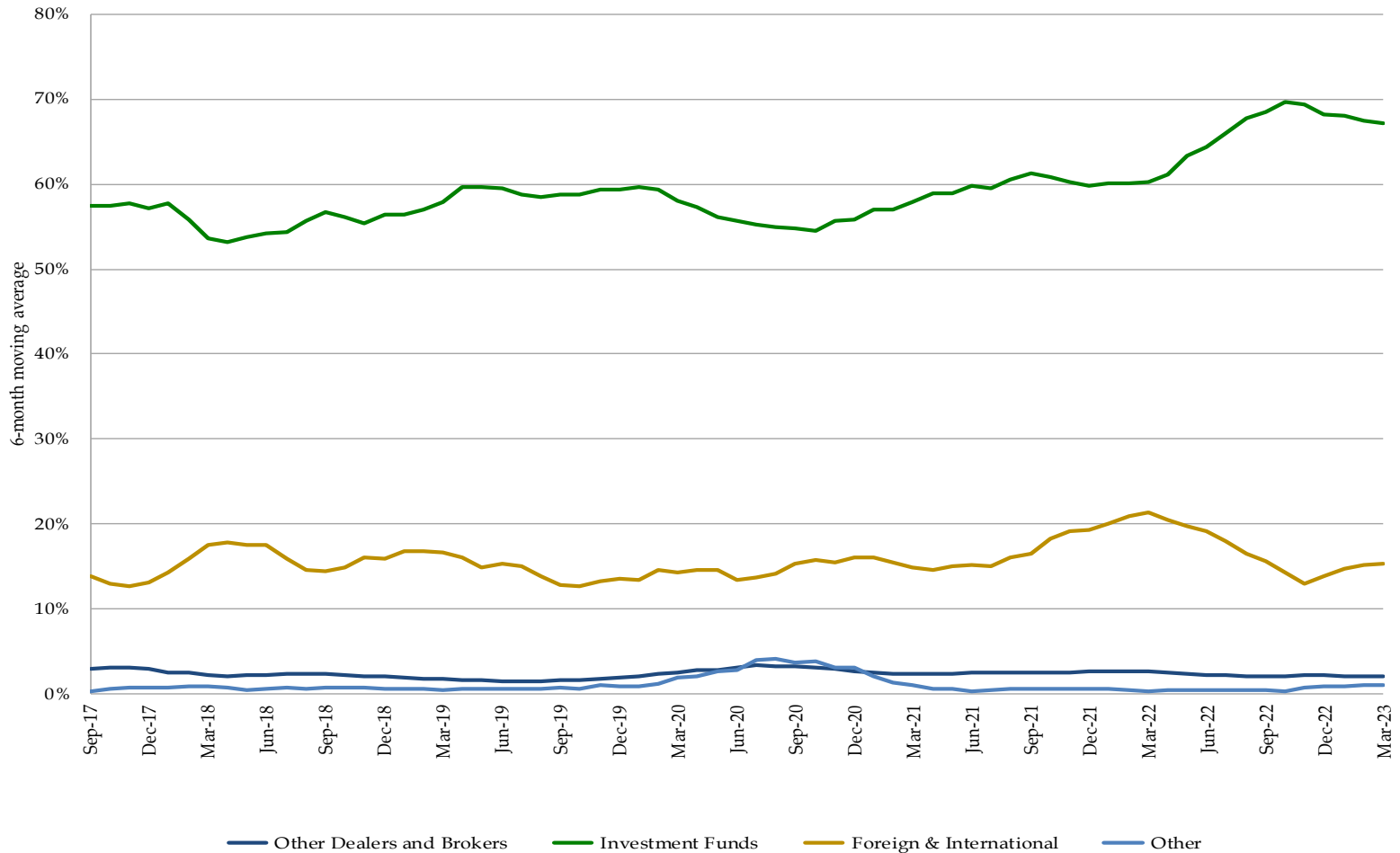
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



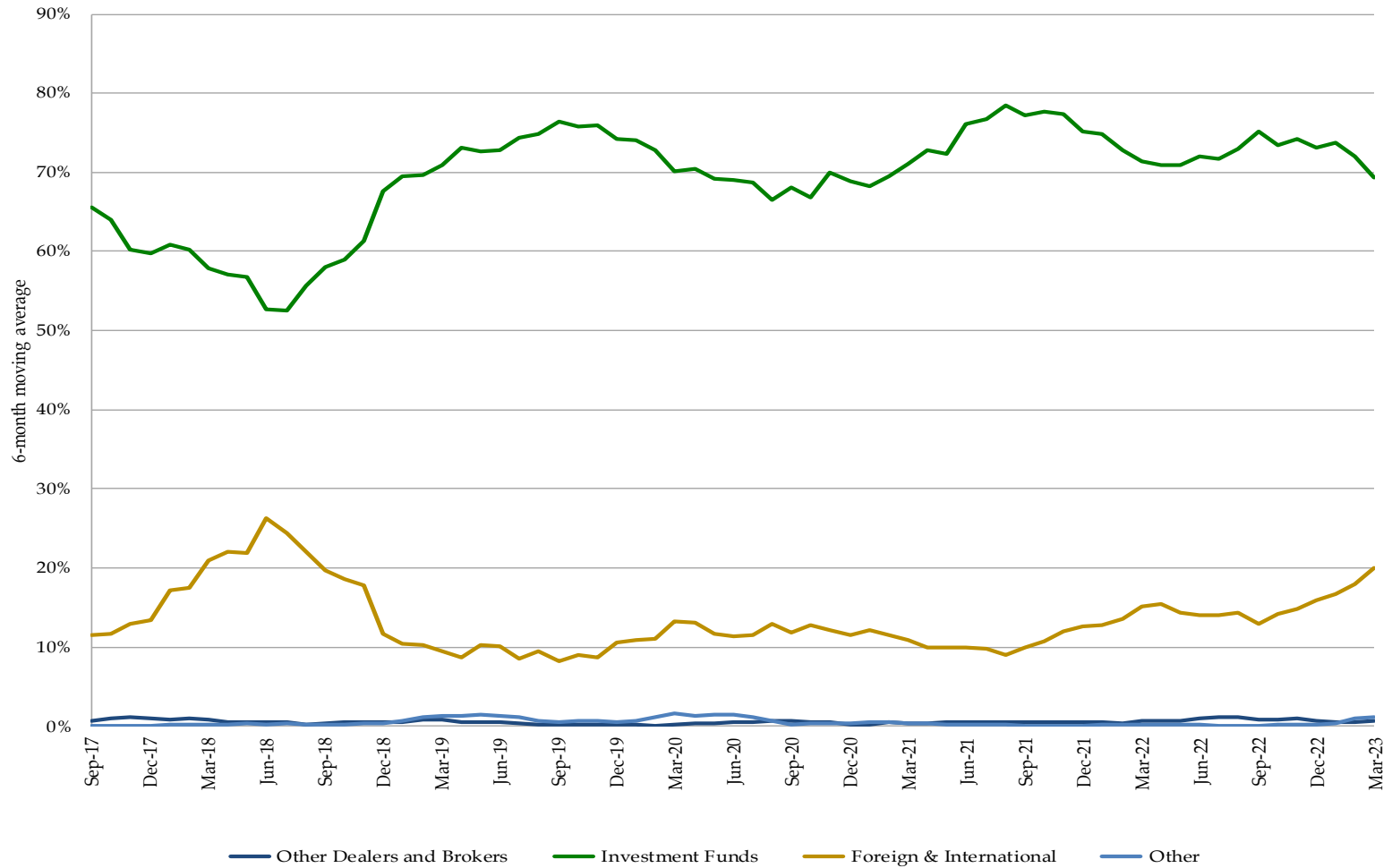
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



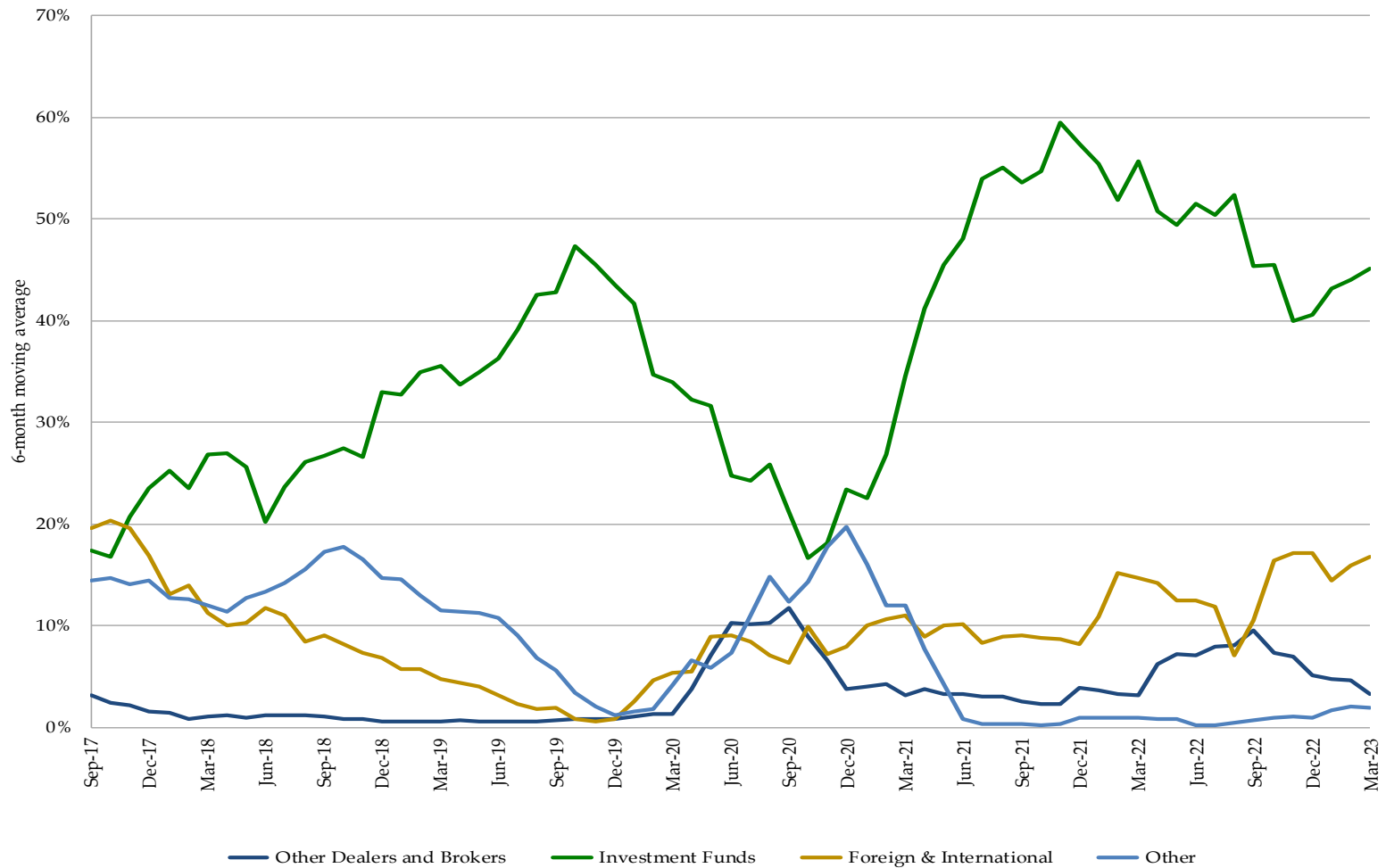
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



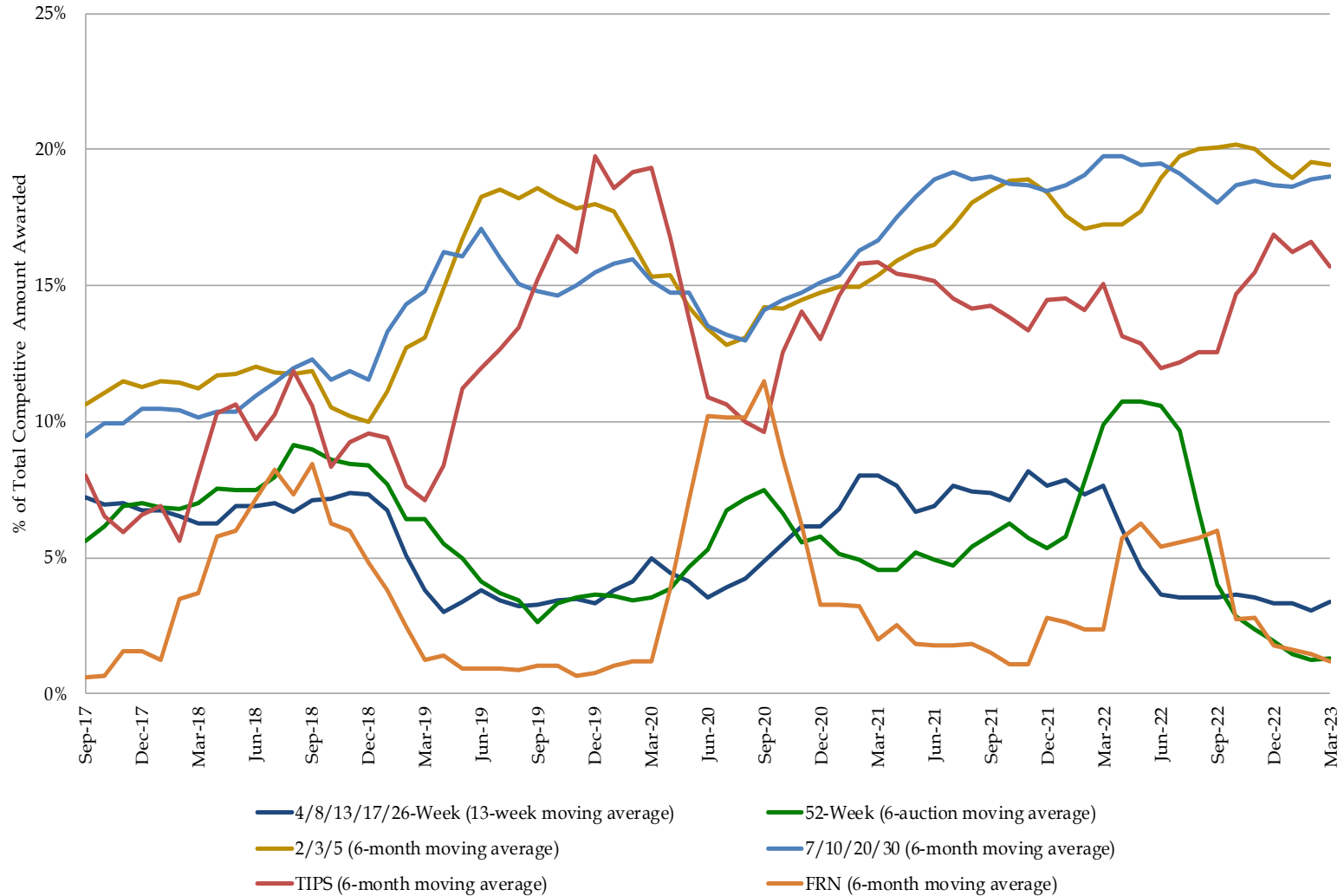
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



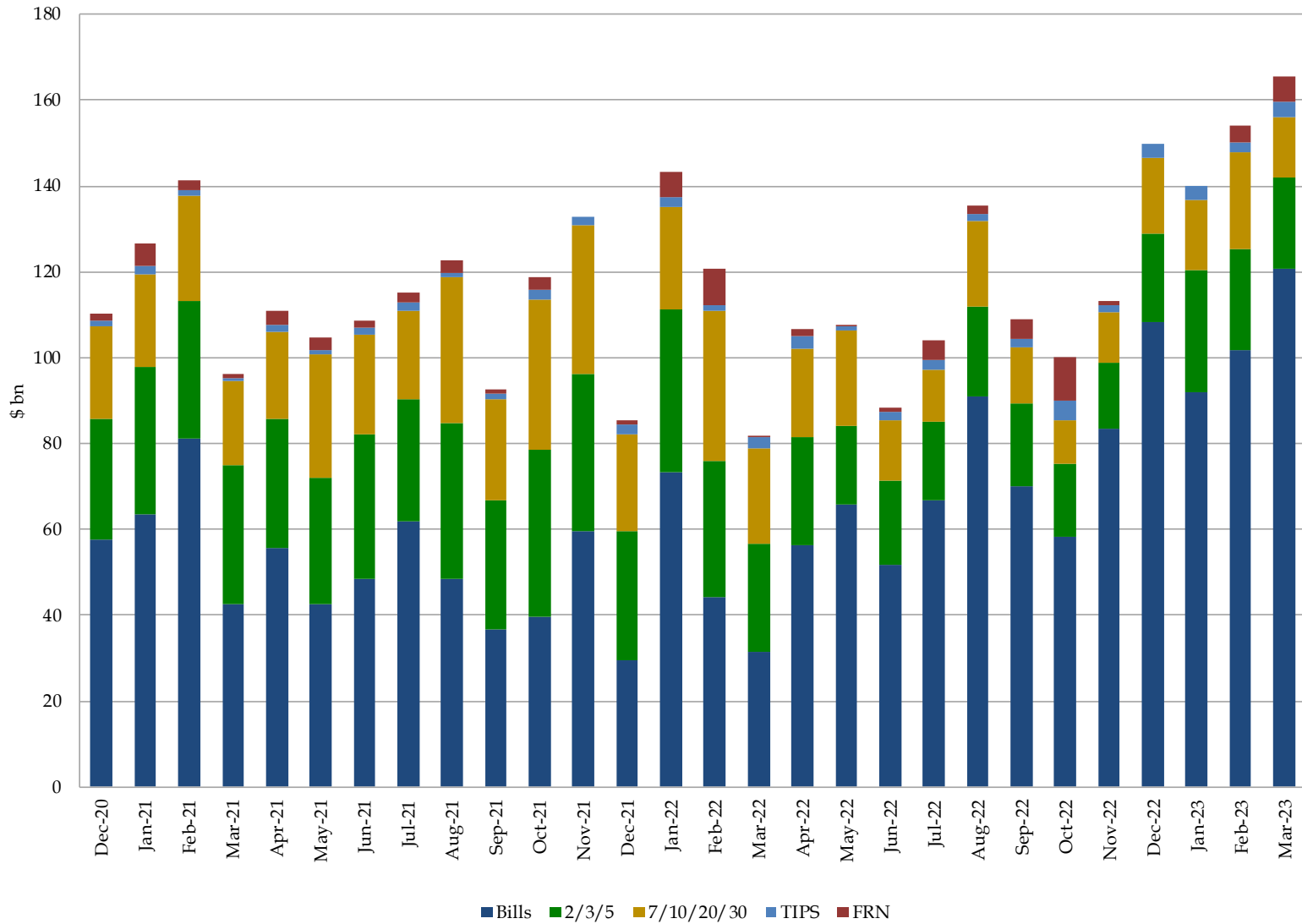
Excludes SOMA add-ons. The "Other" category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

Direct Bidder Awards at Auction



Competitive Amount Awarded excludes SOMA add-ons.

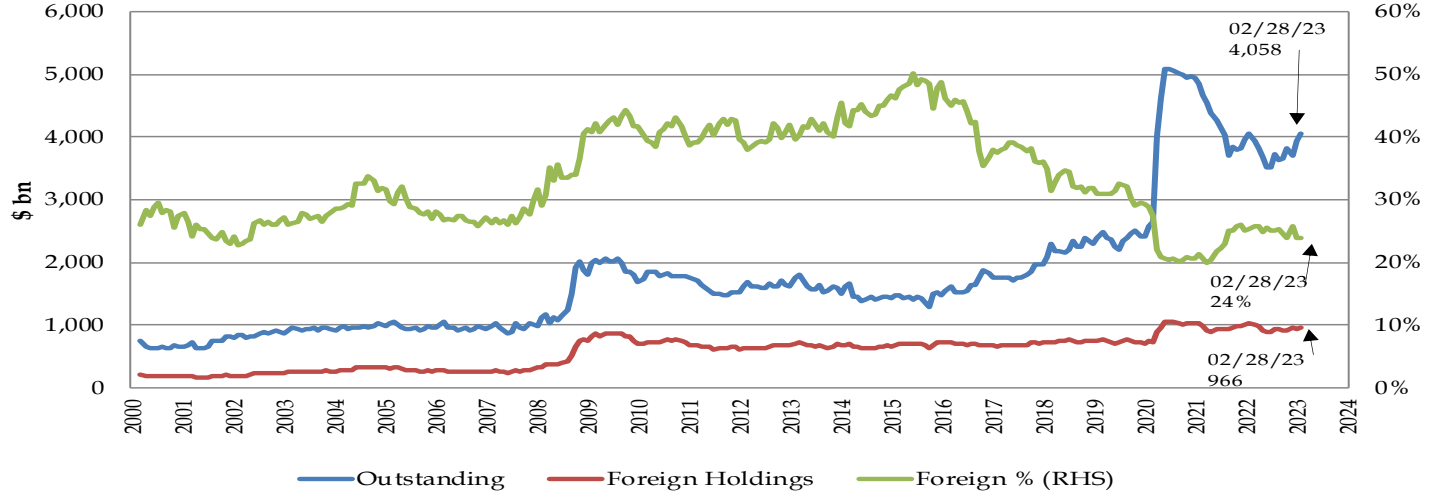
Total Foreign Awards of Treasuries at Auction, \$ billions



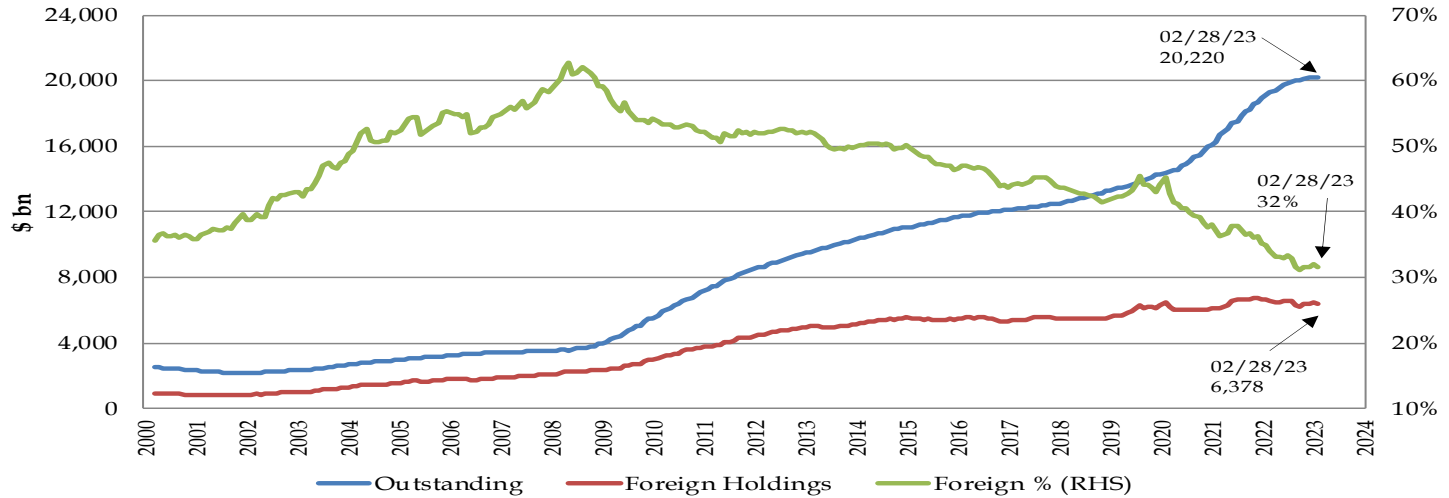
Foreign includes both private sector and official institutions.

Total Foreign Holdings

Bills



Nominal Coupons, TIPS, and FRNs



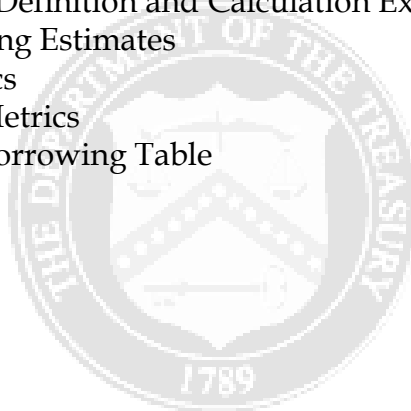
Source: Treasury International Capital (TIC) System as of February 2023.

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.

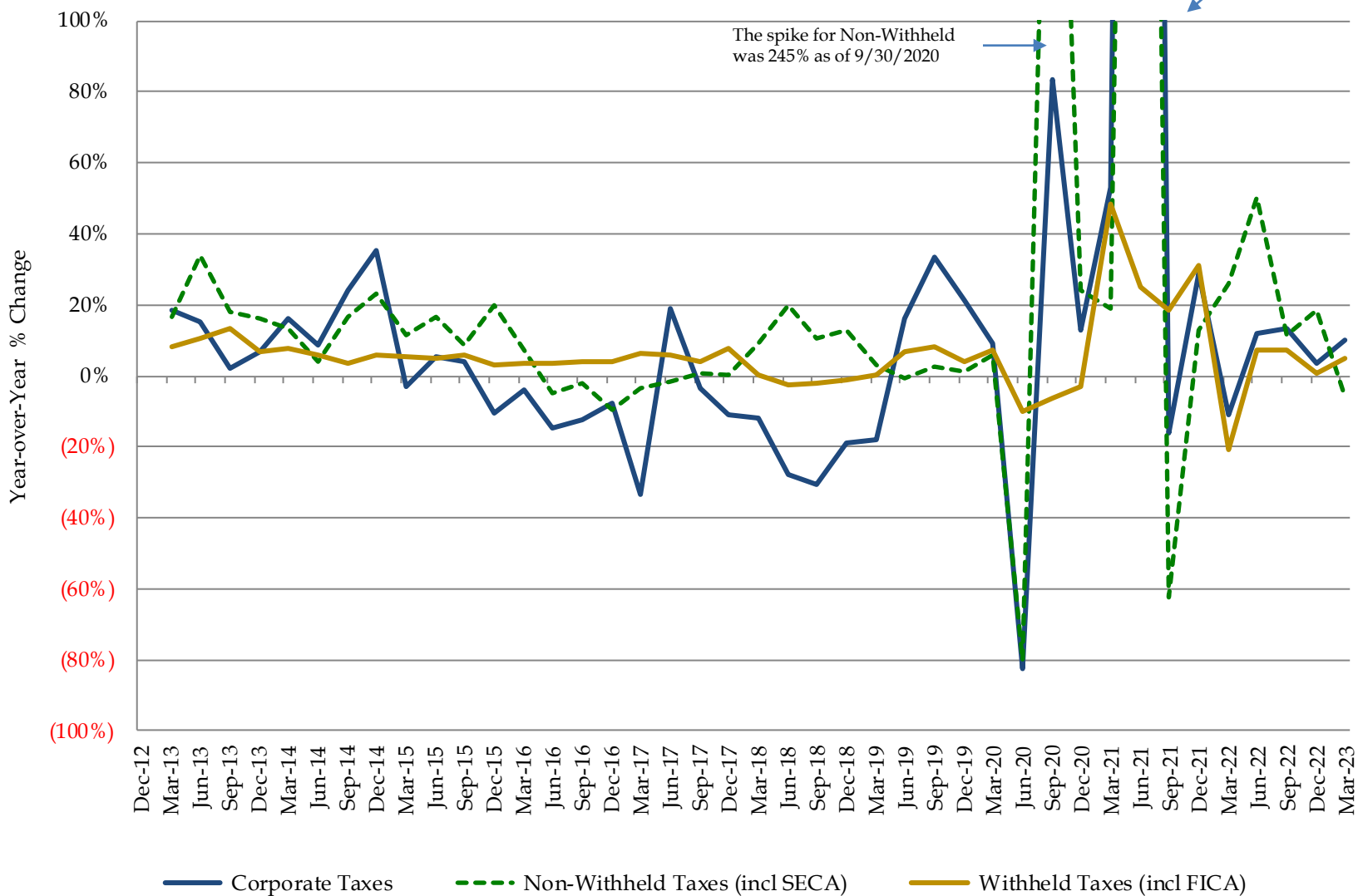
VII. Appendix

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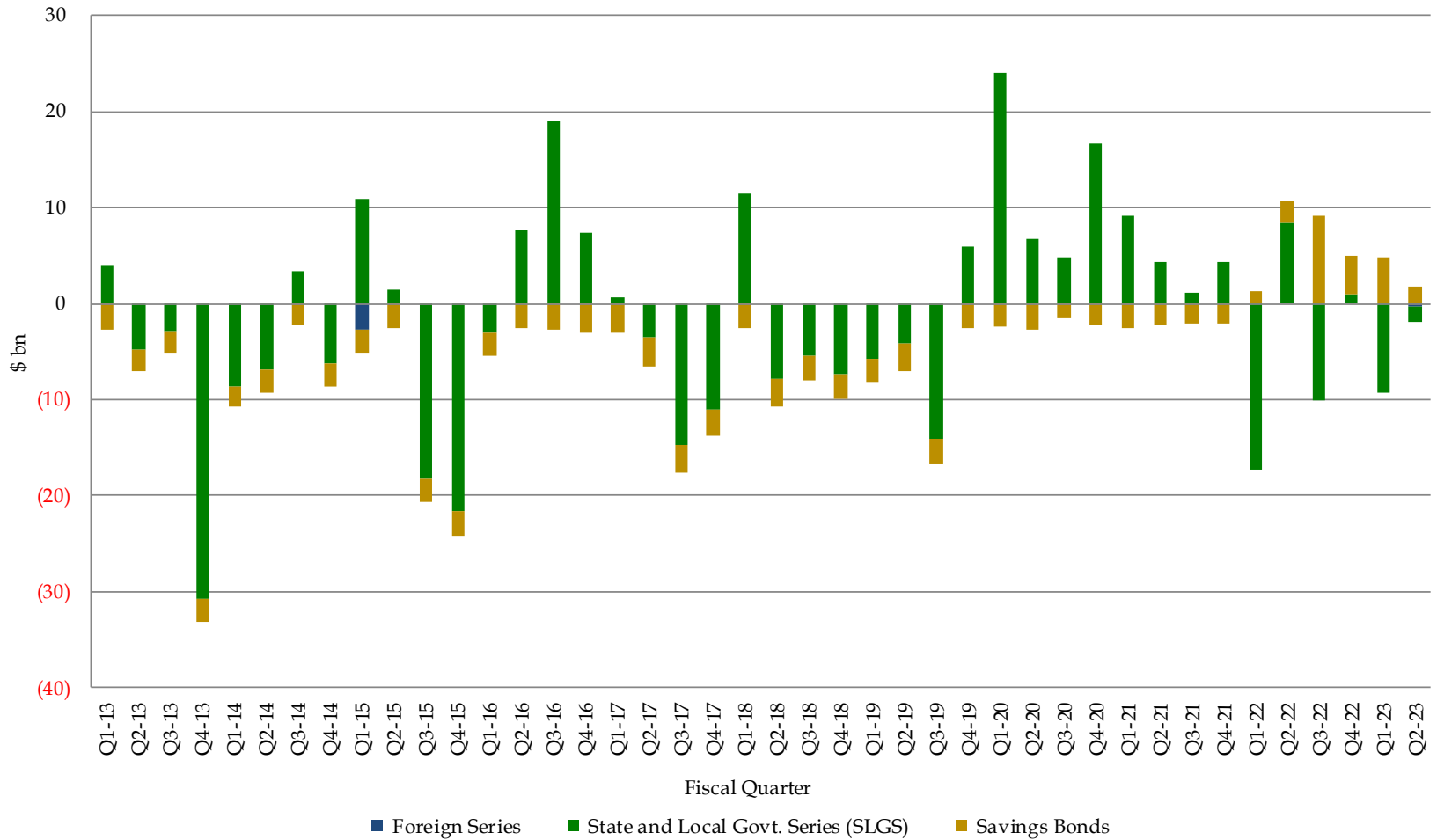


Quarterly Tax Receipts

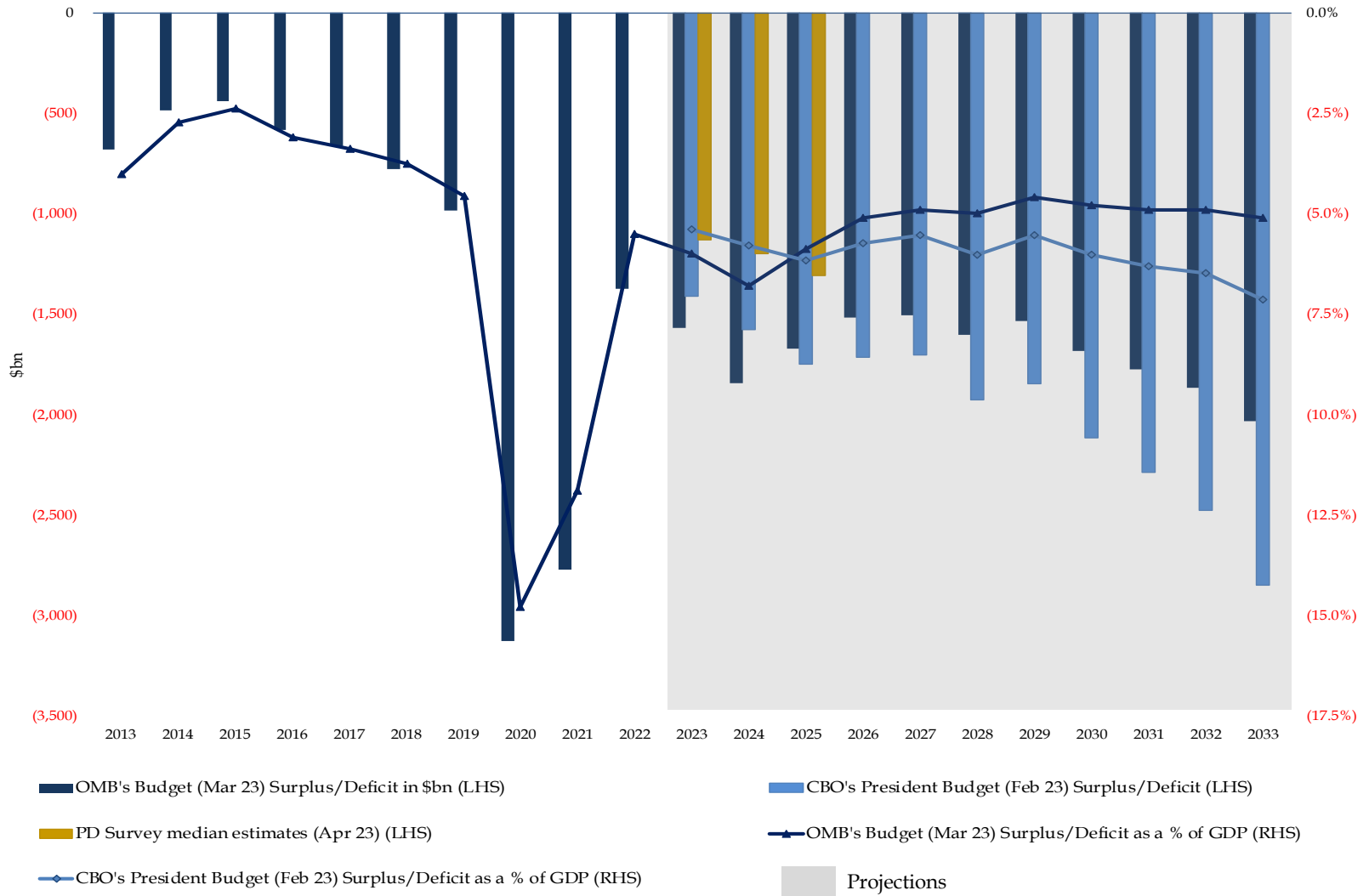


Quarterly tax receipts for Q4 FY2020 reflect the adjustment of April and June 2020 tax deadlines to July 15th, 2020.

Treasury Net Nonmarketable Borrowing



Budget Surplus/Deficit*



*OMB's projections are from OMB's Table S-1 of "Budget of The U.S. Government Fiscal Year 2024," March 2023. CBO's projections are from Table 1-1 of "The Budget and Economic Outlook: 2023 to 2033," February 2023.

Sources of Privately-Held Financing in FY23 Q2

January - March 2023	
Net Bill Issuance	380
Net Coupon Issuance	277
Subtotal: Net Marketable Borrowing	657
Ending Cash Balance	178
Beginning Cash Balance	568
Subtotal: Change in Cash Balance	(390)
Net Implied Funding for FY23 Q2*	1,047

Security	January - March 2023 Bill Issuance			Fiscal Year-to-Date Bill Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
4-Week	855	775	80	1,575	1,515	60
8-Week	720	660	60	1,365	1,290	75
13-Week	759	720	39	1,479	1,410	69
17-Week	462	198	264	792	198	594
26-Week	621	546	75	1,203	1,113	90
52-Week	102	102	0	238	238	0
CMBs						
17-Week	0	213	(213)	93	603	(510)
CMBs	235	160	75	275	200	75
Bill Subtotal	3,754	3,374	380	7,020	6,567	453

Security	January - March 2023 Coupon Issuance			Fiscal Year-to-Date Coupon Issuance		
	Gross	Maturing	Net	Gross	Maturing	Net
2-Year FRN	68	80	(12)	136	154	(18)
2-Year	168	204	(36)	252	298	(46)
3-Year	120	79	41	240	128	112
5-Year	172	73	99	258	98	160
7-Year	140	111	29	210	179	31
10-Year	99	38	61	198	91	107
20-Year	51	0	51	78	0	78
30-Year	57	5	52	114	7	107
5-Year TIPS	0	0	0	40	0	40
10-Year TIPS	32	50	(18)	47	50	(3)
30-Year TIPS	9	0	9	9	0	9
Coupon Subtotal	916	639	277	1,582	1,005	577

Total	4,670	4,013	657	8,601	7,572	1,030
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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.

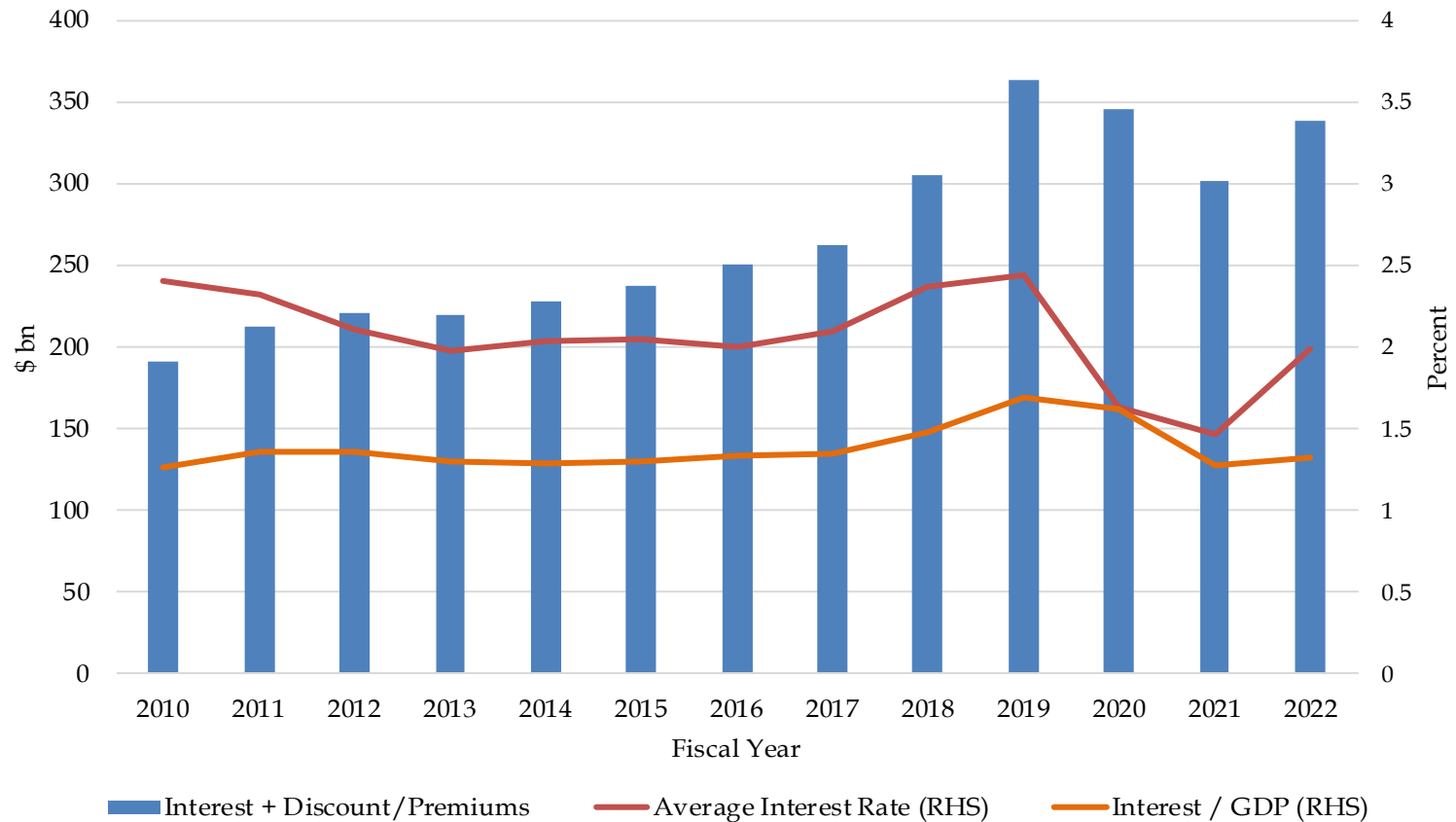
FY 2023-2025 Deficits and Privately-Held Net Marketable Borrowing Estimates, in \$ billions

	Primary Dealer			OFF	OMB	CBO
	25th	Median	75th			
FY 2023 Deficit	1,338	1,400	1,435		1,570	1,410
FY 2024 Deficit	1,413	1,575	1,600		1,847	1,576
FY 2025 Deficit	1,413	1,650	1,758		1,672	1,752
FY 2023 Change in Cash Balance	-236	-136	-86	-36	14	0
FY 2024 Change in Cash Balance	100	100	148		0	0
FY 2025 Change in Cash Balance	0	10	2		0	0
FY 2023 Total Net Marketable Borrowing					1,608	1,409
FY 2024 Total Net Marketable Borrowing					1,873	1,654
FY 2025 Total Net Marketable Borrowing					1,809	1,844
FY 2023 SOMA Redemption	720	720	720	698		
FY 2024 SOMA Redemption	134	360	555			
FY 2025 SOMA Redemption	0	0	0			
FY 2023 Privately-Held Net Marketable Borrowing*	1,947	2,080	2,179	2,489	2,328	2,143
FY 2024 Privately-Held Net Marketable Borrowing*	1,495	1,823	2,075		2,233	2,014
FY 2025 Privately-Held Net Marketable Borrowing*	1,463	1,595	1,798		1,809	1,844

Estimates as of:	Apr-23	May-23	Mar-23	Feb-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) assuming OFF’s end of fiscal year 2023 cash balance of \$600 billion, held constant in out years.
- OMB projections are using estimates are from Table S-1 of “Budget of The U.S. Government Fiscal Year 2024,” March 2023.
- CBO projections are using estimates are from Table 1-1 of “The Budget and Economic Outlook: 2023 to 2033,” February 2023.
- OFF’s SOMA redemption estimate excludes securities maturing on 9/30/2023 (Saturday).

Historical Marketable Treasury Debt Service Cost

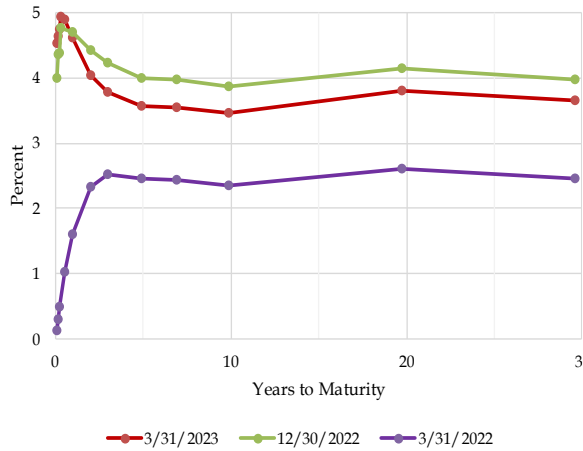


Source: <https://fiscaldata.treasury.gov/datasets>

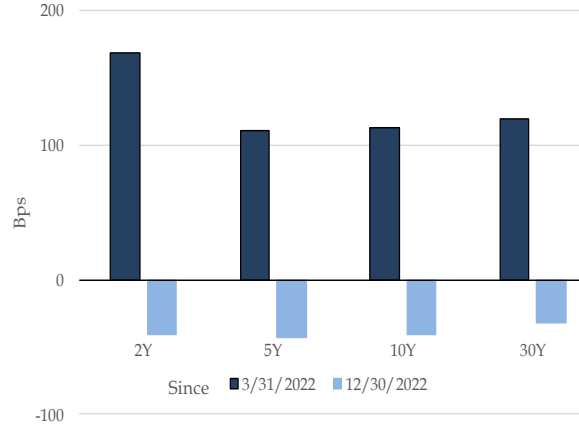
The average interest rates for total marketable debt do not include the Treasury Inflation-Indexed Securities and the Treasury Floating Rate Notes. However, they include securities from Federal Financing Bank. The average interest rates in the chart are as of corresponding fiscal year-end-dates.

Various Historical Treasury Interest Rate Metrics

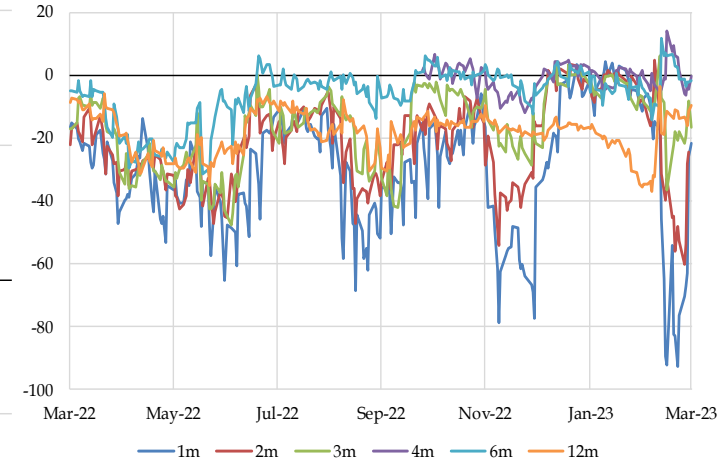
Treasury Nominal Yield Curve as of specified dates



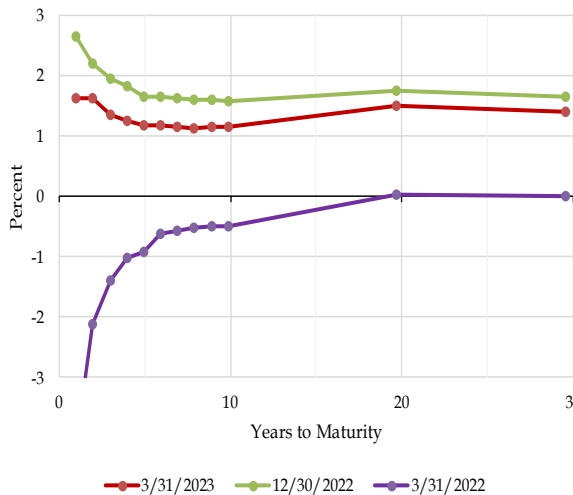
Changes in Selected Tenors Through the end of 03/31/23



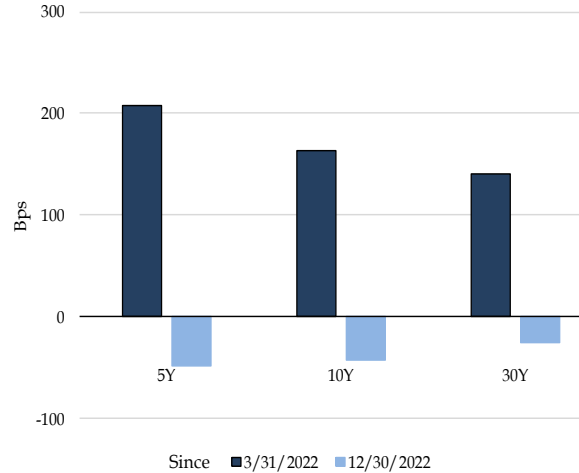
Bills-SOFR OIS spreads Through the end of 03/31/23



Treasury Real Yield Curve as of specified dates



Changes in Selected Tenors Through the end of 03/31/23



Breakevens Through the end of 03/31/23



**Projected Privately-Held Net Marketable Borrowing
Assuming Private Coupon Issuance & Total Bills Outstanding
Remain Constant as of 3/31/2023***

Fiscal Year	Bills	2/3/5	7/10/20/30	TIPS	FRN	Historical/Projected Net Borrowing Capacity
2018	438	197	493	45	23	1,196
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	453	307	668	50	(42)	1,436
2024	0	28	682	75	(10)	776
2025	0	(47)	704	10	0	667
2026	0	(160)	700	28	0	568
2027	0	(40)	583	10	0	553
2028	0	0	271	(11)	0	260
2029	0	0	387	(6)	0	381
2030	0	0	507	9	0	516
2031	0	0	339	(3)	0	337
2032	0	0	363	(27)	0	336
2033	0	0	384	(19)	0	365

*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	1/10/2023	4.100	2.79	42.8	29.6	1.8	68.6	2.2	1.1	0.4
4-Week	1/17/2023	4.370	2.76	57.8	43.9	2.6	53.5	2.2	1.0	0.6
4-Week	1/24/2023	4.480	2.41	67.0	44.0	1.1	54.9	3.0	1.1	0.7
4-Week	1/31/2023	4.500	2.59	71.4	43.2	2.4	54.4	3.6	0.9	0.7
4-Week	2/7/2023	4.490	2.47	72.2	40.8	3.5	55.7	2.8	1.1	0.7
4-Week	2/14/2023	4.520	2.63	72.0	37.6	0.8	61.6	3.0	1.0	0.7
4-Week	2/21/2023	4.510	2.77	72.1	33.1	1.4	65.5	2.9	1.5	0.7
4-Week	2/28/2023	4.515	2.63	72.0	32.4	2.1	65.6	3.0	1.3	0.7
4-Week	3/7/2023	4.590	2.53	71.9	44.3	2.3	53.5	3.1	1.3	0.7
4-Week	3/14/2023	4.640	2.75	61.5	34.4	0.0	65.6	3.5	1.2	0.6
4-Week	3/21/2023	4.220	2.43	55.7	42.9	1.5	55.6	4.3	1.3	0.6
4-Week	3/28/2023	4.150	2.54	56.8	36.3	2.2	61.5	3.2	1.2	0.6
4-Week	4/4/2023	4.600	2.63	57.1	36.8	1.2	62.0	2.9	1.3	0.6
8-Week	1/10/2023	4.430	2.29	43.9	62.4	3.1	34.5	1.1	1.1	0.9
8-Week	1/17/2023	4.465	2.73	53.4	42.6	2.8	54.6	1.6	1.0	1.0
8-Week	1/24/2023	4.520	2.53	58.8	46.2	1.4	52.5	1.2	1.0	1.1
8-Week	1/31/2023	4.525	2.57	58.0	41.9	2.2	55.8	2.0	0.7	1.1
8-Week	2/7/2023	4.505	2.56	58.9	41.7	2.4	55.9	1.1	0.9	1.1
8-Week	2/14/2023	4.600	2.32	59.0	41.4	1.1	57.5	1.0	0.8	1.1
8-Week	2/21/2023	4.650	2.51	58.9	39.4	1.9	58.8	1.1	1.2	1.1
8-Week	2/28/2023	4.660	2.64	58.9	39.7	1.6	58.7	1.1	1.0	1.1
8-Week	3/7/2023	4.655	2.79	58.5	41.4	2.0	56.7	1.5	1.0	1.1
8-Week	3/14/2023	4.820	2.30	53.5	62.8	2.7	34.5	1.5	1.0	1.0
8-Week	3/21/2023	4.450	2.85	47.7	28.6	0.2	71.1	2.3	1.1	0.9
8-Week	3/28/2023	4.400	2.97	48.7	26.8	1.5	71.6	1.3	1.0	0.9
8-Week	4/4/2023	4.600	2.47	48.9	37.7	0.8	61.5	1.1	1.1	0.9

*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	1/5/2023	4.410	2.50	51.2	44.0	4.2	51.8	2.8	6.9	1.8
13-Week	1/12/2023	4.560	2.61	53.9	41.6	3.8	54.6	3.1	5.9	1.9
13-Week	1/19/2023	4.560	2.69	57.7	39.2	5.1	55.7	2.3	6.5	2.0
13-Week	1/26/2023	4.575	2.68	57.3	45.8	13.0	41.2	2.7	6.4	2.0
13-Week	2/2/2023	4.595	2.47	58.1	46.6	3.5	49.9	1.9	8.5	2.1
13-Week	2/9/2023	4.590	2.69	57.7	41.5	4.0	54.5	2.3	6.6	2.0
13-Week	2/16/2023	4.680	2.60	57.3	46.9	3.7	49.5	2.7	7.5	2.1
13-Week	2/23/2023	4.720	2.72	57.6	43.1	4.2	52.8	2.4	6.1	1.9
13-Week	3/9/2023	4.765	2.93	54.9	36.1	3.6	60.4	2.1	4.0	1.8
13-Week	3/16/2023	4.750	2.15	54.1	62.4	3.5	34.2	2.9	4.1	1.8
13-Week	3/23/2023	4.675	2.41	53.7	38.2	8.1	53.7	3.3	1.7	1.7
13-Week	3/30/2023	4.675	2.51	54.4	47.8	9.4	42.8	2.6	6.3	1.9
17-Week	1/10/2023	4.570	3.10	32.3	32.4	2.9	64.7	0.7	0.8	1.3
17-Week	1/17/2023	4.680	2.79	35.4	42.4	11.9	45.8	0.6	0.6	1.4
17-Week	1/24/2023	4.610	2.97	35.4	41.1	5.8	53.1	0.6	0.6	1.4
17-Week	1/31/2023	4.620	2.90	34.7	43.0	3.5	53.5	1.3	0.4	1.4
17-Week	2/7/2023	4.625	2.86	35.7	49.3	3.0	47.7	0.3	0.6	1.4
17-Week	2/14/2023	4.700	2.59	35.3	52.0	2.9	45.1	0.7	0.5	1.5
17-Week	2/21/2023	4.800	2.93	35.6	36.1	2.4	61.4	0.4	0.7	1.4
17-Week	2/28/2023	4.830	2.93	35.6	42.2	3.9	53.8	0.4	0.6	1.4
17-Week	3/7/2023	4.885	2.92	35.6	43.3	1.9	54.8	0.4	0.6	1.4
17-Week	3/14/2023	5.045	2.62	35.4	48.4	4.0	47.6	0.6	0.7	1.4
17-Week	3/21/2023	4.750	2.74	34.8	41.9	16.8	41.4	1.2	0.8	1.4
17-Week	3/28/2023	4.805	2.61	35.3	39.1	12.1	48.8	0.7	0.7	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)*
26-Week	1/5/2023	4.635	2.78	42.3	39.4	2.4	58.1	2.7	5.8	3.1
26-Week	1/12/2023	4.710	2.48	45.3	55.1	5.8	39.1	2.7	4.9	3.2
26-Week	1/19/2023	4.685	2.68	45.5	46.3	6.9	46.8	2.5	5.2	3.2
26-Week	1/26/2023	4.685	2.76	45.3	34.0	2.3	63.7	2.7	5.1	3.2
26-Week	2/2/2023	4.680	2.93	45.9	35.8	3.5	60.6	2.1	6.8	3.3
26-Week	2/9/2023	4.755	2.63	45.0	47.9	2.8	49.3	3.0	5.3	3.2
26-Week	2/16/2023	4.840	2.54	45.3	41.8	2.4	55.8	2.7	6.0	3.3
26-Week	2/23/2023	4.915	2.71	45.1	42.1	4.0	53.9	2.9	4.9	3.1
26-Week	3/9/2023	4.970	2.80	45.0	40.9	2.9	56.1	3.0	3.4	3.0
26-Week	3/16/2023	4.700	2.29	45.1	61.6	4.5	33.9	2.9	3.5	3.0
26-Week	3/23/2023	4.620	2.87	45.7	40.7	2.2	57.1	2.3	1.4	2.9
26-Week	3/30/2023	4.650	2.85	45.7	33.3	1.7	65.0	2.3	5.3	3.1
52-Week	1/26/2023	4.470	2.87	32.4	34.3	0.8	65.0	1.6	3.6	4.6
52-Week	2/23/2023	4.795	2.89	32.2	24.2	1.1	74.7	1.8	3.5	4.4
52-Week	3/23/2023	4.390	2.85	33.0	40.6	2.0	57.4	1.0	1.0	4.1
CMB	1/19/2023	4.490	2.45	59.9	51.9	5.3	42.7	0.1	0.0	0.7
CMB	1/24/2023	4.525	2.85	59.9	40.5	0.8	58.6	0.1	0.0	0.9
CMB	2/16/2023	4.540	3.79	24.9	70.6	3.1	26.2	0.1	0.0	0.1
CMB	2/28/2023	4.460	2.93	14.9	83.3	9.3	7.4	0.1	0.0	0.1
CMB	3/30/2023	4.050	2.39	30.0	83.6	1.8	14.6	0.0	0.0	0.1
CMB	3/31/2023	4.700	2.04	45.0	75.0	2.9	22.1	0.0	0.0	0.2

*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	1/31/2023	4.139	2.94	41.4	16.3	18.7	65.0	0.6	0.0	9.9
2-Year	2/28/2023	4.673	2.61	41.3	15.0	23.0	62.0	0.7	9.5	11.7
2-Year	3/31/2023	3.954	2.44	41.4	23.0	24.2	52.8	0.6	0.0	9.7
3-Year	1/17/2023	3.977	2.84	39.8	17.3	13.2	69.5	0.2	0.0	13.9
3-Year	2/15/2023	4.073	2.33	39.7	19.9	21.1	59.1	0.3	15.6	19.4
3-Year	3/15/2023	4.635	2.73	39.8	16.8	20.7	62.5	0.2	0.0	13.4
5-Year	1/31/2023	3.530	2.64	42.9	8.8	15.4	75.7	0.1	0.0	24.2
5-Year	2/28/2023	4.109	2.48	42.8	11.0	19.0	69.9	0.2	9.8	28.5
5-Year	3/31/2023	3.665	2.48	42.9	13.3	18.2	68.5	0.1	0.0	23.5
7-Year	1/31/2023	3.517	2.69	35.0	6.1	16.8	77.1	0.0	0.0	26.7
7-Year	2/28/2023	4.062	2.49	35.0	13.7	20.8	65.5	0.0	8.0	31.2
7-Year	3/31/2023	3.626	2.39	35.0	15.4	21.4	63.2	0.0	0.0	25.9
10-Year	1/17/2023	3.575	2.53	32.0	15.1	17.9	67.0	0.0	0.0	32.0
10-Year	2/15/2023	3.613	2.66	34.9	5.4	15.2	79.5	0.1	13.7	50.6
10-Year	3/15/2023	3.985	2.35	32.0	17.7	20.0	62.3	0.0	0.0	32.0
20-Year	1/31/2023	3.678	2.83	12.0	8.1	15.6	76.3	0.0	0.0	20.2
20-Year	2/28/2023	3.977	2.54	15.0	6.7	18.0	75.3	0.0	3.4	30.2
20-Year	3/31/2023	3.909	2.53	12.0	11.9	21.1	67.0	0.0	0.0	19.9
30-Year	1/17/2023	3.585	2.45	18.0	9.0	16.3	74.6	0.0	0.0	39.5
30-Year	2/15/2023	3.686	2.25	21.0	15.8	18.9	65.2	0.0	8.2	65.6
30-Year	3/15/2023	3.877	2.35	18.0	9.4	19.8	70.7	0.0	0.0	39.1
2-Year FRN	1/31/2023	0.200	2.80	24.0	32.5	0.1	67.4	0.0	0.0	0.1
2-Year FRN	2/24/2023	0.160	3.29	22.0	30.8	0.0	69.2	0.0	0.0	0.0
2-Year FRN	3/31/2023	0.190	3.51	22.0	31.7	0.0	68.3	0.0	0.0	0.0

TIPS										
Issue	Settle Date	Stop Out Rate (%)	Bid-to-Cover Ratio	Competitive Awards (\$bn)	% Primary Dealer	% Direct	% Indirect	Non-Competitive Awards (\$bn)	SOMA "Add Ons" (\$bn)	10-Year Equivalent (\$bn)**
10-Year TIPS	1/31/2023	1.220	2.79	16.9	7.6	13.1	79.3	0.1	0.0	19.5
10-Year TIPS	3/31/2023	1.182	2.28	15.0	10.9	16.0	73.1	0.0	0.0	16.5
30-Year TIPS	2/28/2023	1.550	2.38	9.0	9.9	14.1	76.0	0.0	2.0	31.5

*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.