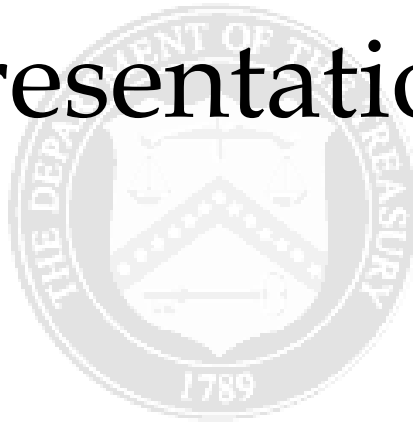


# Treasury Presentation to TBAC



# Office of Debt Management



Fiscal Year 2017 Q3 Report

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# Section I: Executive Summary



# Highlights of Treasury's August 2017 Quarterly Refunding Presentation to the Treasury Borrowing Advisory Committee (TBAC)

## Receipts and Outlays

- Fiscal year-to-date, total receipts are up by 2 percent driven mainly by individual income and payroll taxes which increased by \$65 billion.
- Fiscal year-to-date, total outlays are up by 6 percent driven mainly by an increase of \$102 billion over these 4 categories: Health and Human Services (HHS), Treasury outlays for inflation accruals, Social Security Administration (SSA), and Education.

## Sources of Financing

- Based on the Quarterly Borrowing Estimate, Treasury's Office of Fiscal Projections currently projects a net marketable borrowing need of \$96 billion for Q4 FY 2017, with an end-of-September cash balance of \$60 billion. For Q1 FY 2018, the net marketable borrowing need is projected to be \$501 billion, with an end-of-December cash balance of \$360 billion.

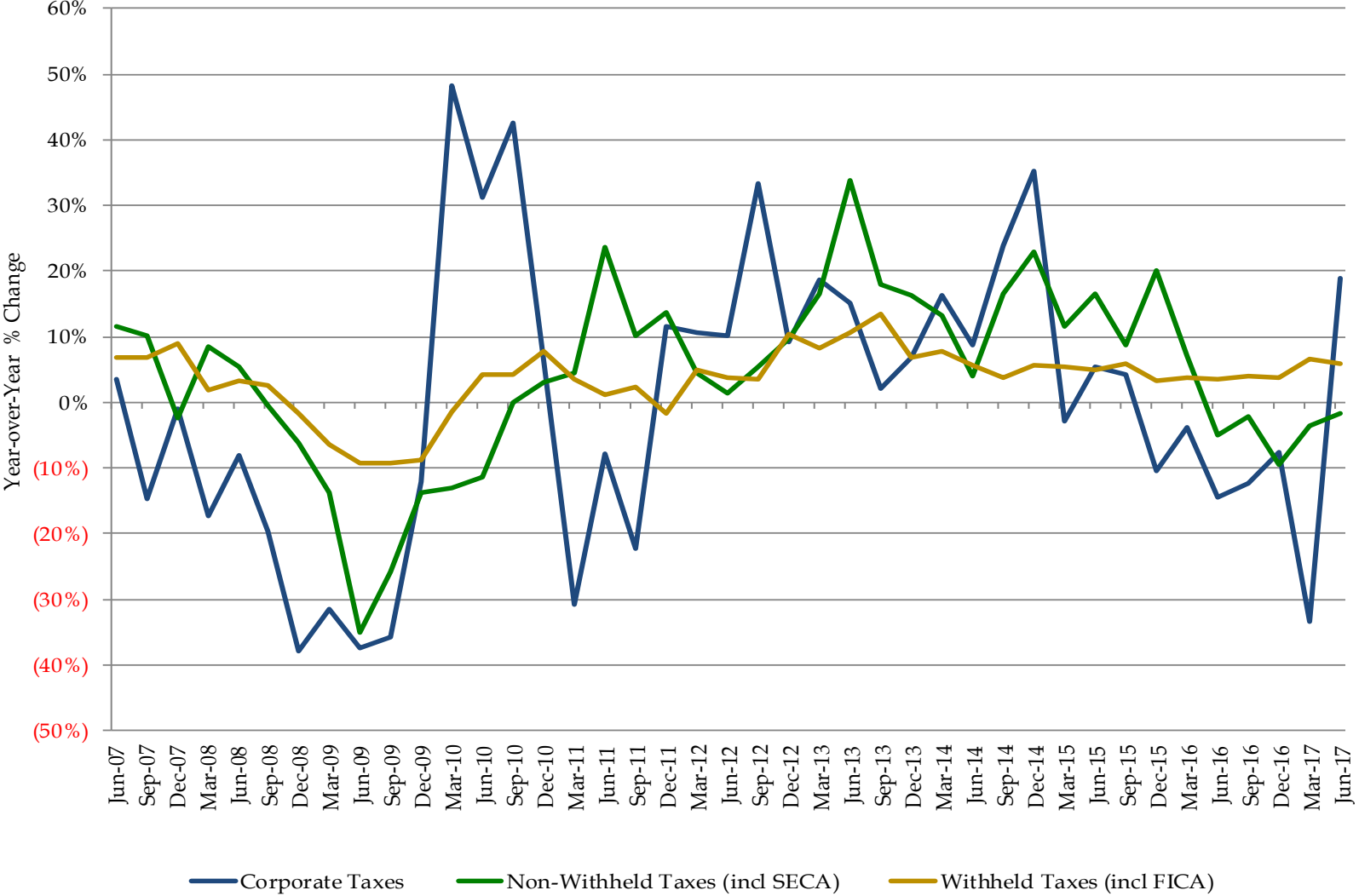
## Projected Net Marketable Borrowing

- Treasury continues to analyze and model various scenarios to address potential funding needs based on deficit forecasts and expectations for SOMA Treasury redemptions.
- Assumptions include full SOMA reinvestments until October 2017, followed by SOMA capped redemptions until the second half of 2021. These assumptions are based on the June FOMC addendum to the Policy Normalization Principles and Plans and expectations from the FRB-NY June 2017 Survey of Primary Dealers and the July projections for the SOMA portfolio.

# Section II: Fiscal

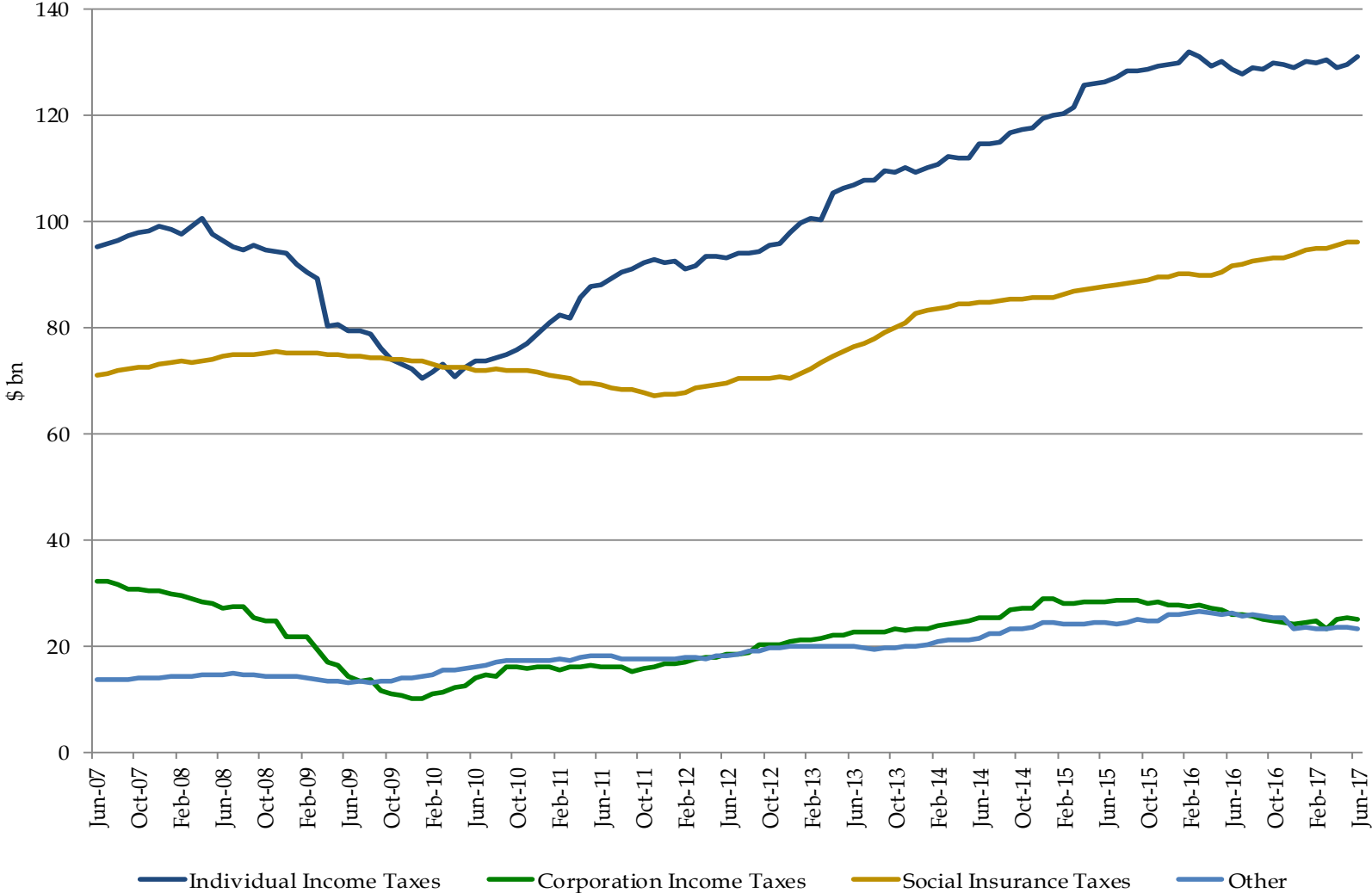


# Quarterly Tax Receipts



Source: United States Department of the Treasury

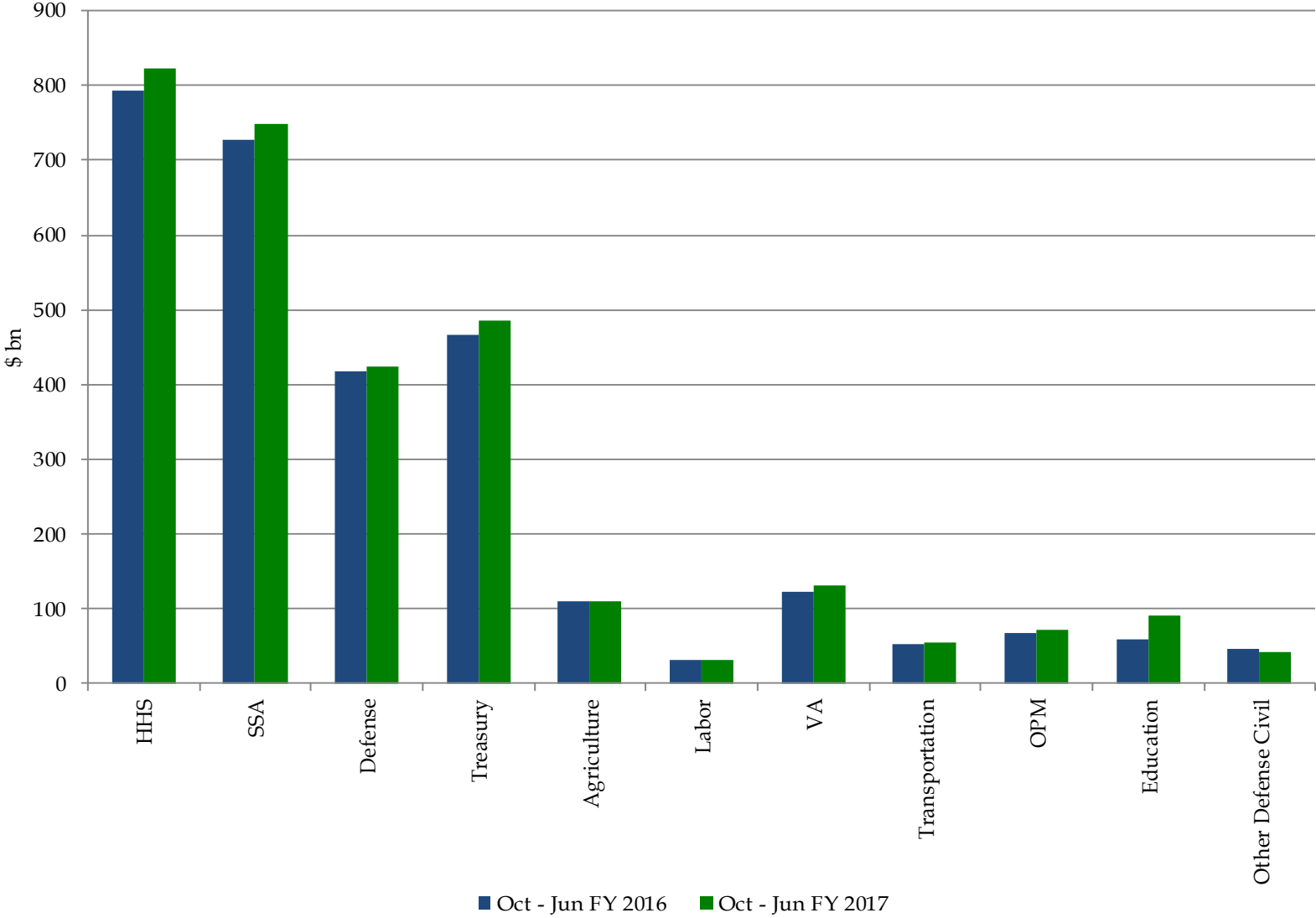
# Monthly Receipt Levels (12-Month Moving Average)



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.  
 Source: United States Department of the Treasury

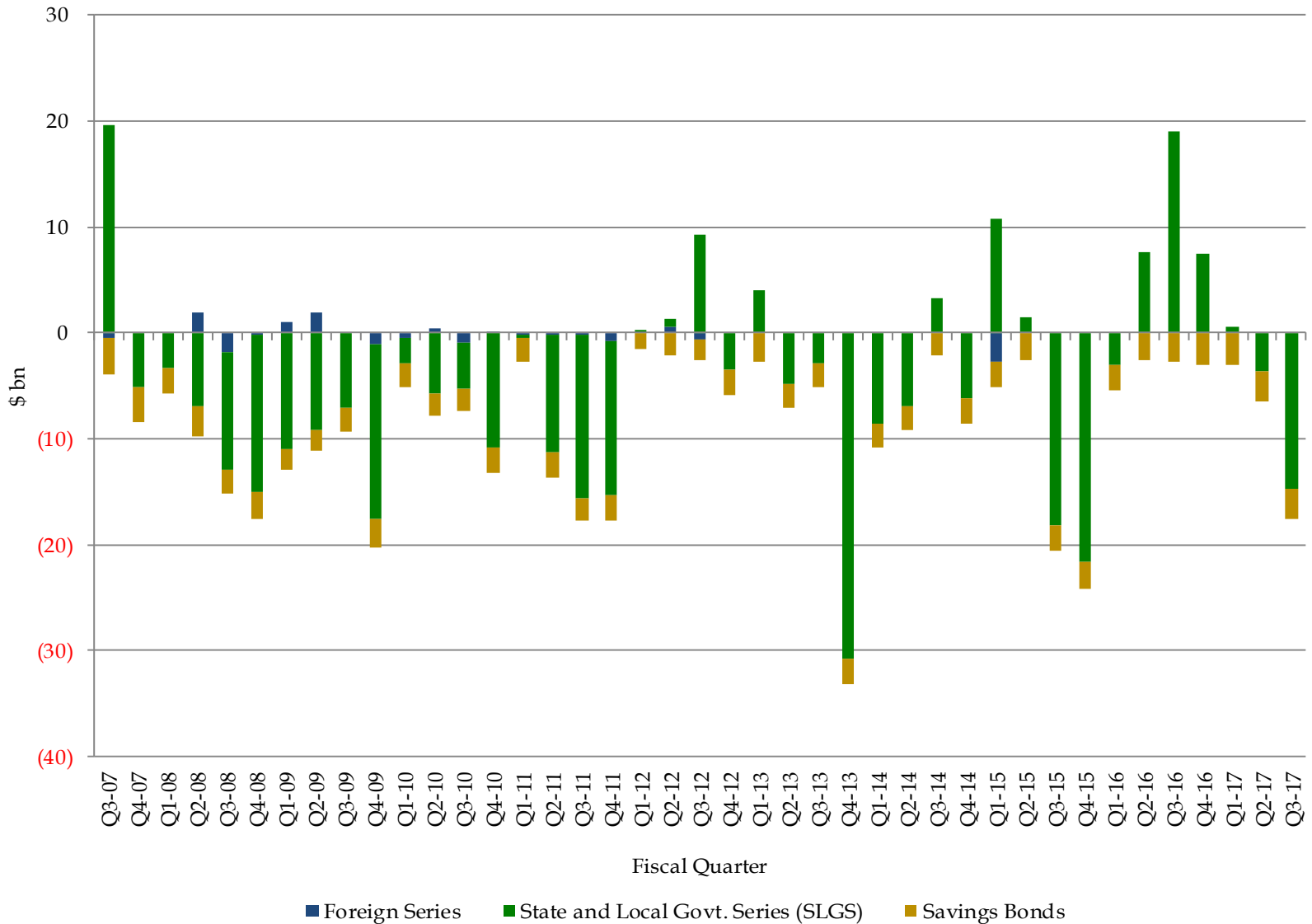


# Eleven Largest Outlays

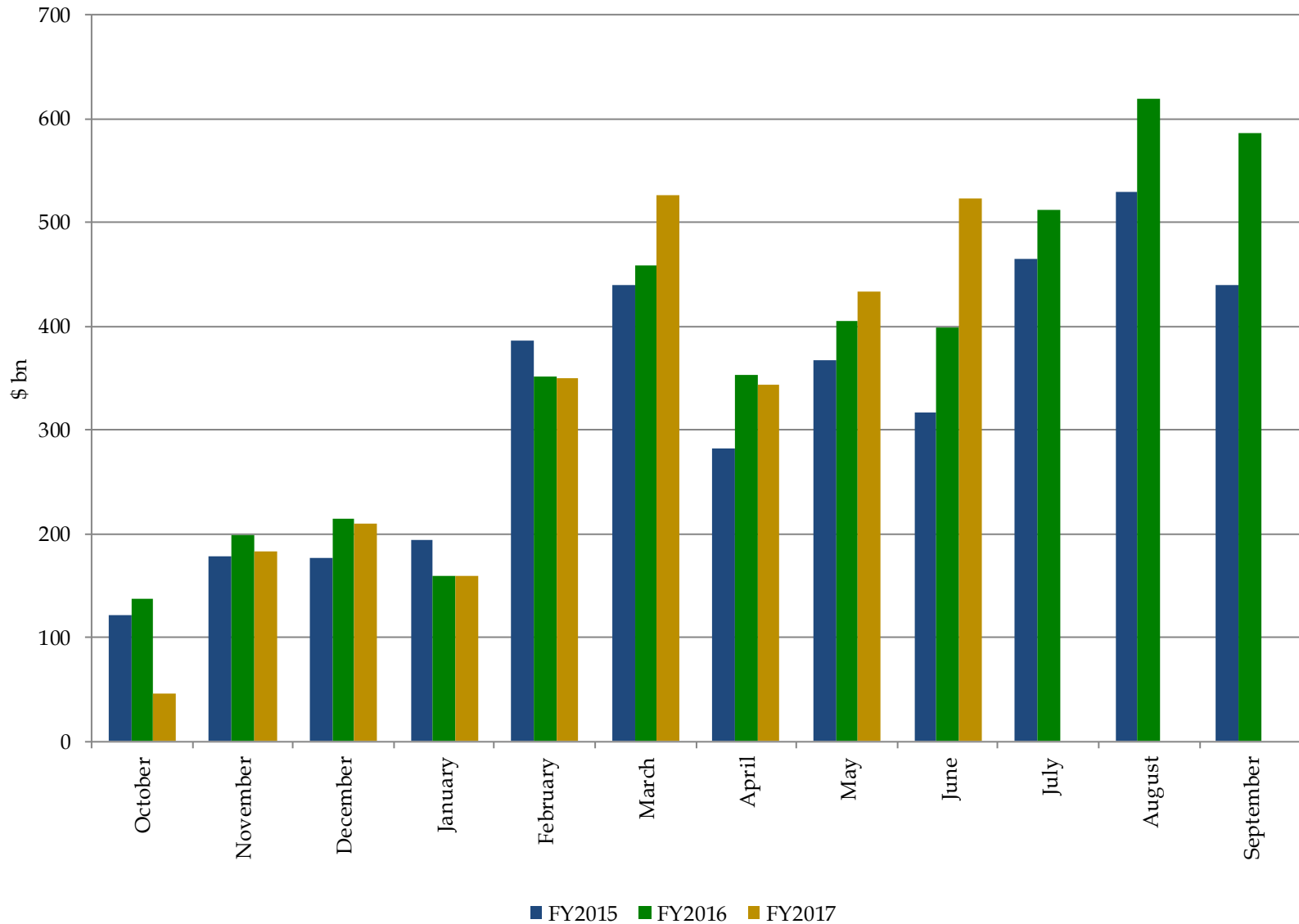


Source: United States Department of the Treasury

# Treasury Net Nonmarketable Borrowing



# Cumulative Budget Deficits by Fiscal Year



## FY 2017-2019 Deficits and Net Marketable Borrowing Estimates

In \$ billions

|   | Primary<br>Dealers <sup>1</sup> | CBO <sup>2</sup> | CBO <sup>3</sup> | OMB <sup>4</sup> |
|---|---------------------------------|------------------|------------------|------------------|
| FY 2017 Deficit Estimate                  | 664                             | 693              | 693              | 602              |
| FY 2018 Deficit Estimate                  | 690                             | 563              | 593              | 440              |
| FY 2019 Deficit Estimate                  | 789                             | 689              | 689              | 526              |
| FY 2017 Deficit Range                     | 559-720                         |                  |                  |                  |
| FY 2018 Deficit Range                     | 550-875                         |                  |                  |                  |
| FY 2019 Deficit Range                     | 650-980                         |                  |                  |                  |
| FY 2017 Net Marketable Borrowing Estimate | 544                             | 488              | 488              | 426*             |
| FY 2018 Net Marketable Borrowing Estimate | 855                             | 881              | 912              | 529**            |
| FY 2019 Net Marketable Borrowing Estimate | 891                             | 745              | 748              | 604              |
| FY 2017 Net Marketable Borrowing Range    | 373-895                         |                  |                  |                  |
| FY 2018 Net Marketable Borrowing Range    | 550-1130                        |                  |                  |                  |
| FY 2019 Net Marketable Borrowing Range    | 670-1100                        |                  |                  |                  |
| Estimates as of:                          | Jul-17                          | Jun-17           | Jul-17           | May-17           |

<sup>1</sup>Based on primary dealer feedback on July 24, 2017. Estimates above are averages.

<sup>2</sup>Summary Table 1 of CBO's "An Update to the Budget and Economic Outlook: 2017 to 2027"

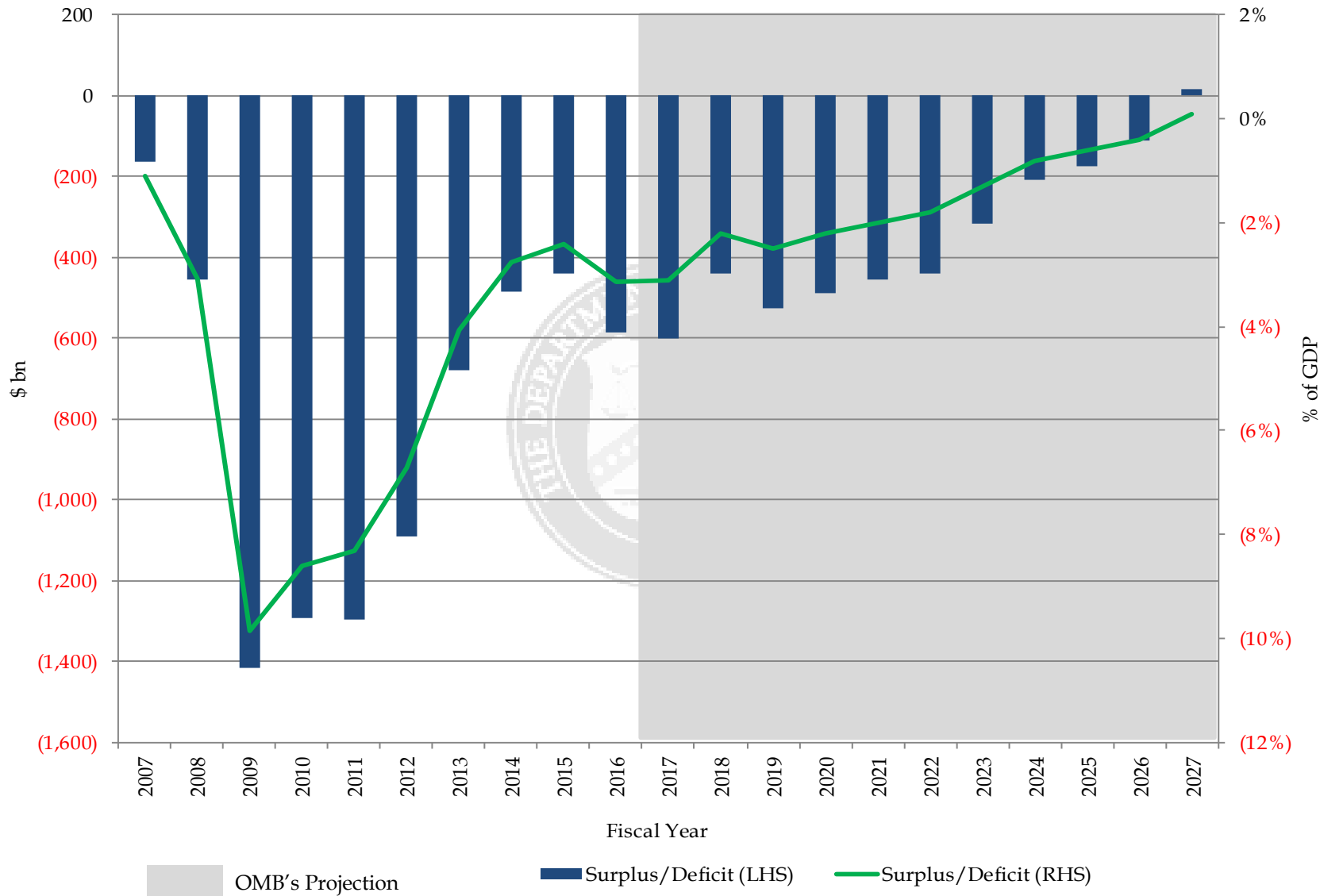
<sup>3</sup>Table 1 and 2 of CBO's "An Analysis of the President's 2018 Budget"

<sup>4</sup>Table S-10 of OMB's "Budget of the United States Government, Fiscal Year 2018"

\* OFP's FY 2017 Net Marketable Borrowing Estimate.

\*\*The "Budget of the U.S. Government Fiscal Year 2018" assumes an end-of-September cash balance target of \$350 billion. Given that OFP's FY2017 Net Marketable Borrowing Estimate assumes an end-of-September cash balance target of \$60 billion, the combined FY2017-18 figure would be \$290 billion higher in an equivalent comparison.

# Budget Surplus/Deficit



Projections are from Table S-10 of "Budget of The U.S. Government Fiscal Year 2018."

# Section III: Financing



## Assumptions for Financing Section (pages 15 to 20)

- Portfolio and SOMA holdings as of 06/30/2017.
- Full SOMA reinvestments until October 2017, followed by SOMA capped redemptions until the second half of 2021. These assumptions are based on the June FOMC addendum to the Policy Normalization Principles and Plans and expectations from the FRB-NY June 2017 Survey of Primary Dealers and the July projections for the SOMA portfolio.
- Assumes announced issuance sizes and patterns constant for nominal coupons, TIPS, and FRNs as of 06/30/2017, while using an average of ~\$1.7 trillion of bills outstanding.
- The principal on the TIPS securities was accreted to each projection date based on market ZCIS levels as of 06/30/2017.
- No attempt was made to match future financing needs.



## Sources of Financing in Fiscal Year 2017 Q3

| April - June 2017                          |             |
|--|-------------|
| Net Bill Issuance                          | (39)        |
| Net Coupon Issuance                        | 74          |
| <b>Subtotal: Net Marketable Borrowing</b>  | <b>35</b>   |
| Ending Cash Balance                        | 181         |
| Beginning Cash Balance                     | 92          |
| <b>Subtotal: Change in Cash Balance</b>    | <b>89</b>   |
| <b>Net Implied Funding for FY 2017 Q3*</b> | <b>(54)</b> |

| Security             | April - June 2017<br>Bill Issuance |              |             | Fiscal Year-to-Date<br>Bill Issuance |              |           |
|----------------------|------------------------------------|--------------|-------------|--------------------------------------|--------------|-----------|
|                      | Gross                              | Maturing     | Net         | Gross                                | Maturing     | Net       |
| 4-Week               | 640                                | 670          | (30)        | 1,843                                | 1,843        | 0         |
| 13-Week              | 507                                | 450          | 57          | 1,462                                | 1,457        | 5         |
| 26-Week              | 429                                | 427          | 2           | 1,228                                | 1,192        | 36        |
| 52-Week              | 60                                 | 60           | (0)         | 200                                  | 170          | 30        |
| CMBs                 | 25                                 | 93           | (68)        | 163                                  | 163          | 0         |
| <b>Bill Subtotal</b> | <b>1,661</b>                       | <b>1,700</b> | <b>(39)</b> | <b>4,896</b>                         | <b>4,825</b> | <b>71</b> |

| Security               | April - June 2017<br>Coupon Issuance |            |           | Fiscal Year-to-Date<br>Coupon Issuance |              |            |
|------------------------|--------------------------------------|------------|-----------|--|--------------|------------|
|                        | Gross                                | Maturing   | Net       | Gross                                  | Maturing     | Net        |
| 2-Year FRN             | 45                                   | 41         | 4         | 130                                    | 123          | 7          |
| 2-Year                 | 88                                   | 52         | 36        | 260                                    | 214          | 46         |
| 3-Year                 | 80                                   | 87         | (7)       | 233                                    | 267          | (34)       |
| 5-Year                 | 115                                  | 132        | (17)      | 340                                    | 348          | (8)        |
| 7-Year                 | 95                                   | 95         | (1)       | 280                                    | 291          | (11)       |
| 10-Year                | 71                                   | 26         | 45        | 206                                    | 71           | 134        |
| 30-Year                | 44                                   | 16         | 28        | 128                                    | 34           | 93         |
| 5-Year TIPS            | 16                                   | 48         | (32)      | 30                                     | 48           | (18)       |
| 10-Year TIPS           | 12                                   | 0          | 12        | 51                                     | 21           | 30         |
| 30-Year TIPS           | 6                                    | 0          | 6         | 19                                     | 0            | 19         |
| <b>Coupon Subtotal</b> | <b>571</b>                           | <b>496</b> | <b>74</b> | <b>1,676</b>                           | <b>1,417</b> | <b>259</b> |

|              |              |              |           |              |              |            |
|--------------|--------------|--------------|-----------|--------------|--------------|------------|
| <b>Total</b> | <b>2,232</b> | <b>2,196</b> | <b>35</b> | <b>6,572</b> | <b>6,242</b> | <b>330</b> |
|--------------|--------------|--------------|-----------|--------------|--------------|------------|

\*An end-of-June 2017 cash balance of \$181 billion versus a beginning-of-March 2017 cash balance of \$92 billion. By keeping the cash balance constant, Treasury arrives at the net implied funding number. Gross issuance values include SOMA add-ons.



## Sources of Financing in Fiscal Year 2017 Q4

| July - September 2017                         |     |
|---|-----|
| Assuming Constant Coupon Issuance Sizes*      |     |
| Treasury Announced Net Marketable Borrowing** | 96  |
| Net Coupon Issuance                           | 105 |
| Implied Change in Bills                       | (9) |

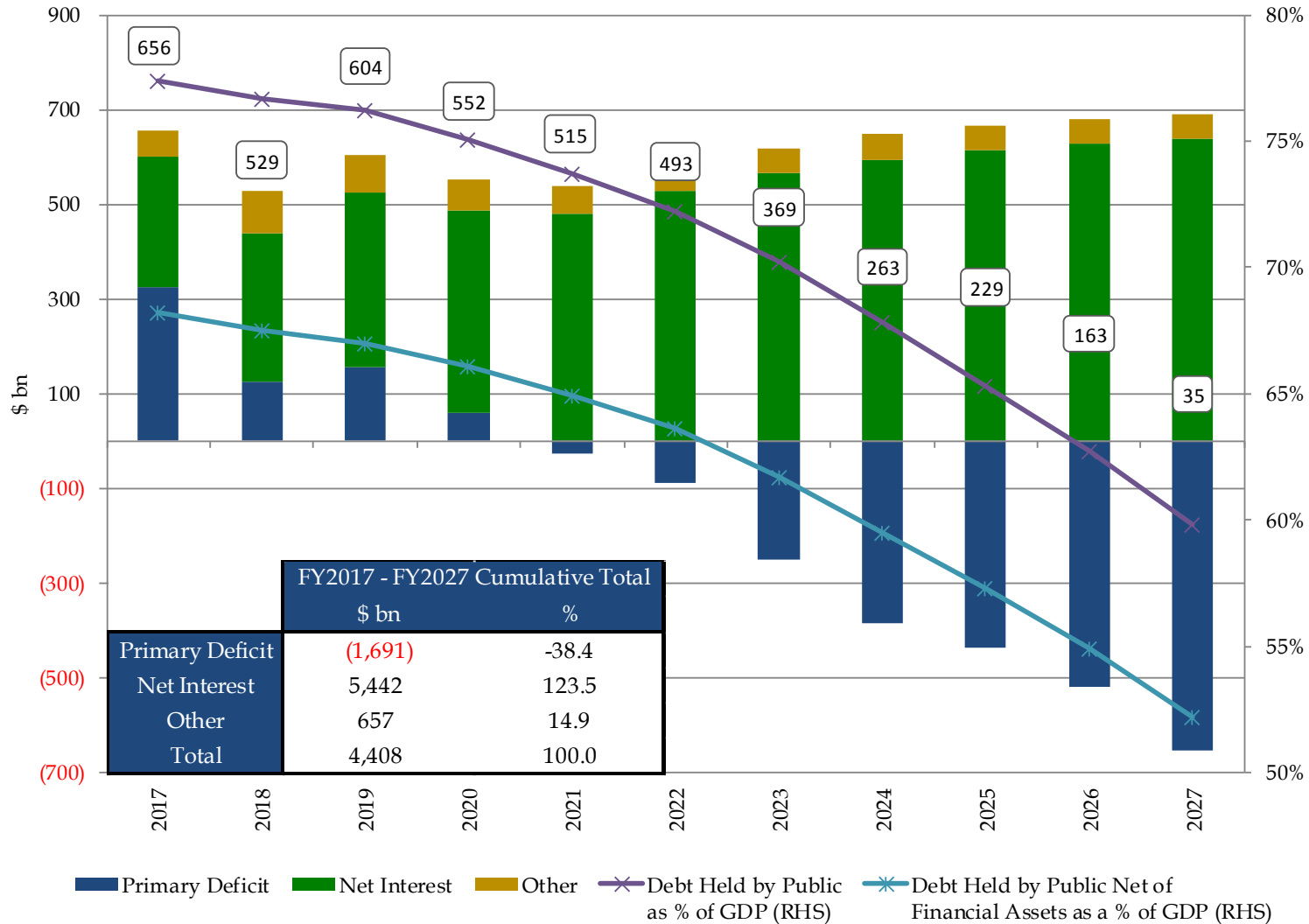
| Security        | July - September 2017<br>Coupon Issuance |          |      | Fiscal Year-to-Date<br>Coupon Issuance |          |      |
|-----------------|--|----------|------|--|----------|------|
|                 | Gross                                    | Maturing | Net  | Gross                                  | Maturing | Net  |
| 2-Year FRN      | 42                                       | 41       | 1    | 173                                    | 164      | 8    |
| 2-Year          | 55                                       | 26       | 29   | 315                                    | 240      | 75   |
| 3-Year          | 80                                       | 81       | (1)  | 313                                    | 348      | (35) |
| 5-Year          | 72                                       | 96       | (24) | 412                                    | 444      | (32) |
| 7-Year          | 60                                       | 60       | (0)  | 340                                    | 351      | (11) |
| 10-Year         | 70                                       | 28       | 42   | 276                                    | 99       | 177  |
| 30-Year         | 44                                       | 11       | 33   | 172                                    | 45       | 126  |
| 5-Year TIPS     | 14                                       | 0        | 14   | 44                                     | 48       | (3)  |
| 10-Year TIPS    | 26                                       | 17       | 9    | 76                                     | 37       | 39   |
| 30-Year TIPS    | 0  | 0        | 0    | 19                                     | 0        | 19   |
| Coupon Subtotal | 464                                      | 359      | 105  | 2,140                                  | 1,777    | 364  |

\*Keeping announced issuance sizes and patterns constant for nominal coupons, TIPS, and FRNs as of 06/30/2017.

\*\*Assumes an end-of-September 2017 cash balance of \$60 billion versus a beginning-of-July 2017 cash balance of \$181 billion.

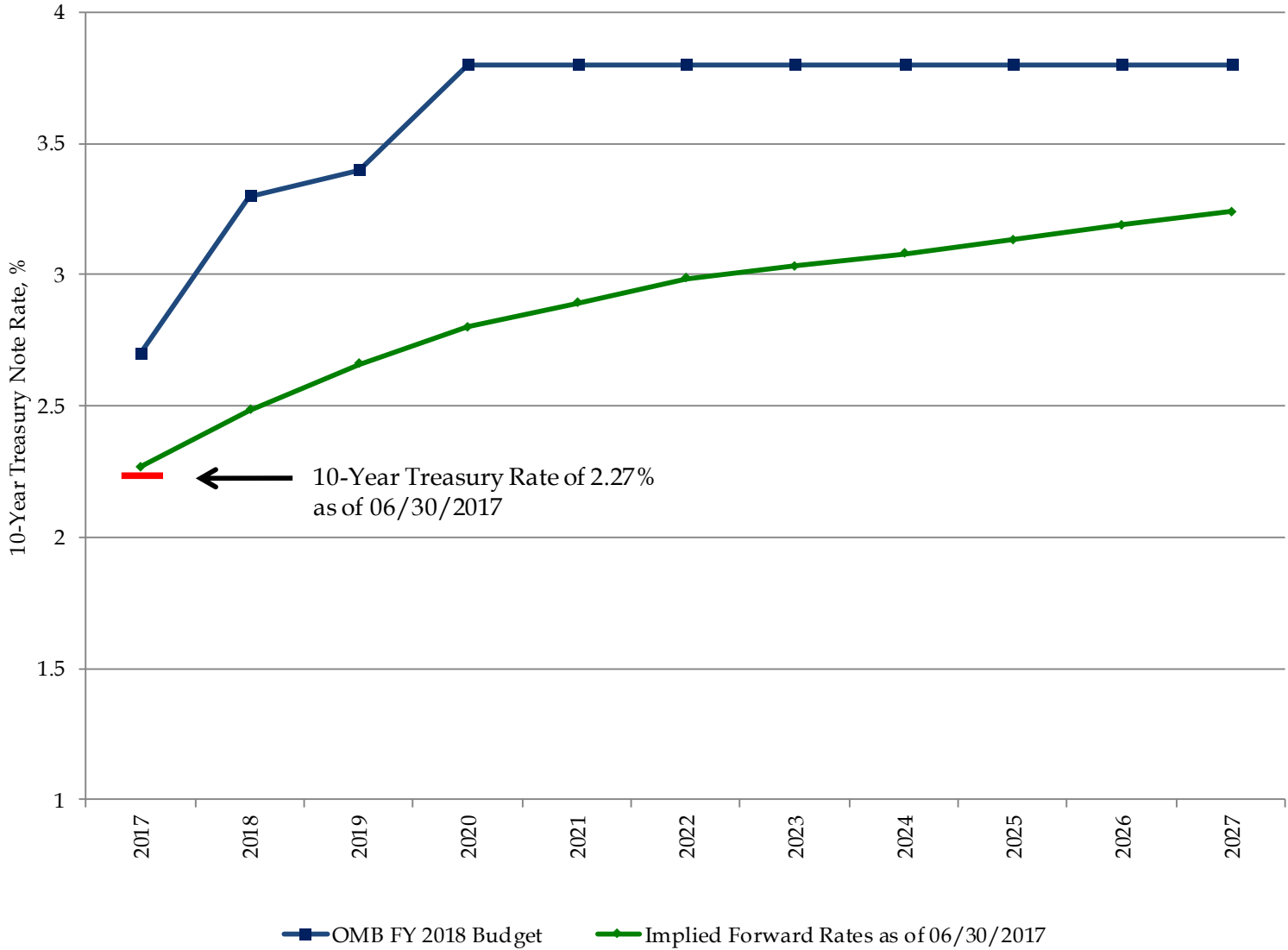
Financing Estimates released by the Treasury can be found here: <http://www.treasury.gov/resource-center/data-chart-center/quarterly-refunding/Pages/Latest.aspx>

# OMB's Projection of Borrowing from the Public



OMB's projections of net borrowing from the public are from Table S-10 of "Budget of the U.S. Government Fiscal Year 2018." Data labels represent the change in debt held by the public in \$ billions. "Other" represents borrowing from the public to provide direct and guaranteed loans.

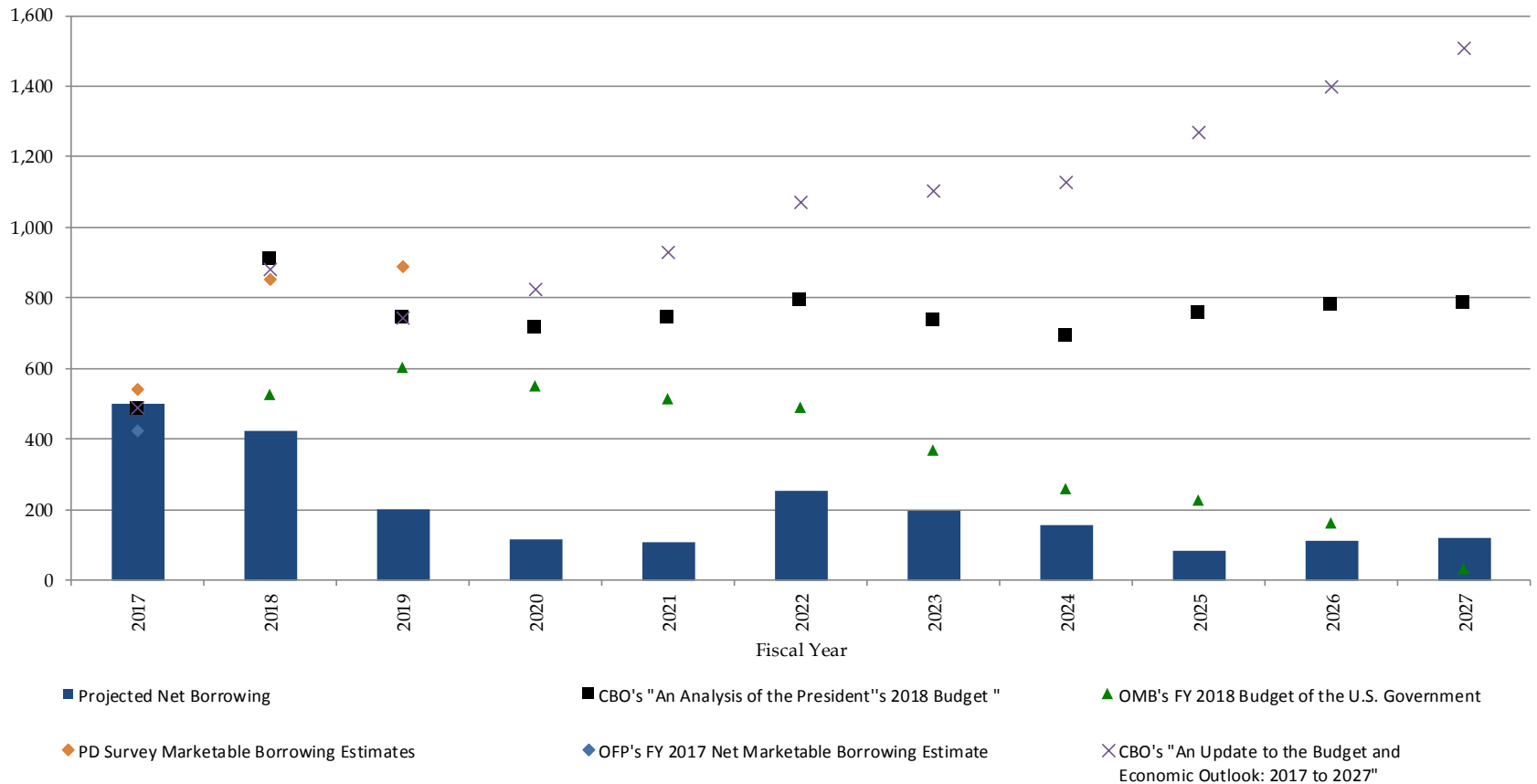
# Interest Rate Assumptions: 10-Year Treasury Note



OMB's economic assumption of the 10-Year Treasury Note rates are from Table S-9 of OMB's "Budget of the United States Government, Fiscal Year 2018." The forward rates are the implied 10-Year Treasury Note rates on June 30 of that year.

# Impact of SOMA Actions on Projected Net Borrowing Assuming Future Issuance Remains Constant

With Capped Fed Redemptions (\$ bn)\*



Treasury's primary dealer survey estimates can be found on page 11. OMB's projections of net borrowing from the public are from Table S-10 of "Budget of the U.S. Government Fiscal Year 2018." CBO's estimates of the borrowing from the public are Summary Table 1 of "The Budget and Economic Outlook: 2017 to 2027." See table at the end of this section for details.

\*Reflects capped SOMA Treasury redemptions after September 2017 up until the second half of 2021.

## Historical Net Marketable Borrowing and Projected Net Borrowing Assuming Future Issuance Remains Constant, \$ billions

| Fiscal Year | Bills | 2/3/5 | 7/10/30 | TIPS | FRN | Historical/Projected Net Borrowing Capacity | OMB's FY 2018 Budget of the U.S. Government | CBO's "An Analysis of the President's 2018 Budget " | Primary Dealer Survey |
|-------------|-------|-------|---------|------|-----|---|---|---|-----------------------|
| 2012        | 139   | 148   | 738     | 90   | 0   | 1,115                                       |   |   |                       |
| 2013        | (86)  | 86    | 720     | 111  | 0   | 830   |   |   |                       |
| 2014        | (119) | (92)  | 669     | 88   | 123 | 669   |   |   |                       |
| 2015        | (53)  | (282) | 641     | 88   | 164 | 558   |   |   |                       |
| 2016        | 289   | (82)  | 477     | 64   | 47  | 795   |   |   |                       |
| 2017        | 138   | 9     | 292     | 55   | 8   | 502   | 426*  | 488   | 544                   |
| 2018        | 0     | 92    | 276     | 55   | 0   | 423   | 529**                                       | 912   | 855                   |
| 2019        | 0     | 61    | 101     | 46   | (6) | 201   | 604   | 748   | 891                   |
| 2020        | 0     | (31)  | 138     | 16   | (7) | 116   | 552   | 719   |                       |
| 2021        | 0     | (40)  | 152     | (3)  | (3) | 106   | 515   | 747   |                       |
| 2022        | 0     | 33    | 226     | (10) | 3   | 253   | 493   | 797   |                       |
| 2023        | 0     | 27    | 172     | (8)  | 6   | 197   | 369   | 737   |                       |
| 2024        | 0     | 5     | 160     | (9)  | 0   | 156   | 263   | 694   |                       |
| 2025        | 0     | (28)  | 164     | (51) | (1) | 84  | 229   | 758   |                       |
| 2026        | 0     | (23)  | 178     | (42) | (2) | 111   | 163   | 782   |                       |
| 2027        | 0     | (0)   | 155     | (32) | (2) | 120   |   | 787   |                       |

Net Borrowing capacity reflects full SOMA reinvestments until October 2017, followed by SOMA capped redemptions until the second half of 2021.

Treasury's primary dealer survey estimates can be found on page 11. OMB's projections of net borrowing from the public are from Table S-10 of "Budget of the U.S. Government Fiscal Year 2018." CBO's estimates of the borrowing from the public are from Table 1 and 2 of "The Budget and Economic Outlook: 2017 to 2027."

\*OFP's FY 2017 Net Marketable Borrowing Estimate

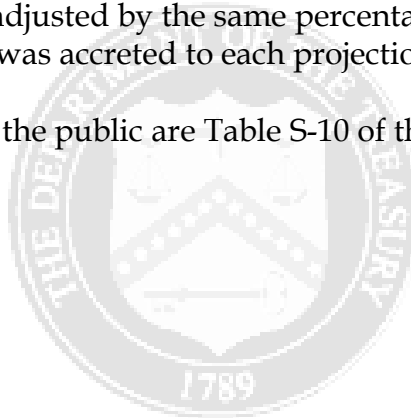
\*\*The "Budget of the U.S. Government Fiscal Year 2018" assumes an end-of-September cash balance target of \$350 billion. Given that OFP's FY2017 Net Marketable Borrowing Estimate assumes an end-of-September cash balance target of \$60 billion, the combined FY2017-18 figure would be \$290 billion higher in an equivalent comparison.

# Section IV: Portfolio Metrics

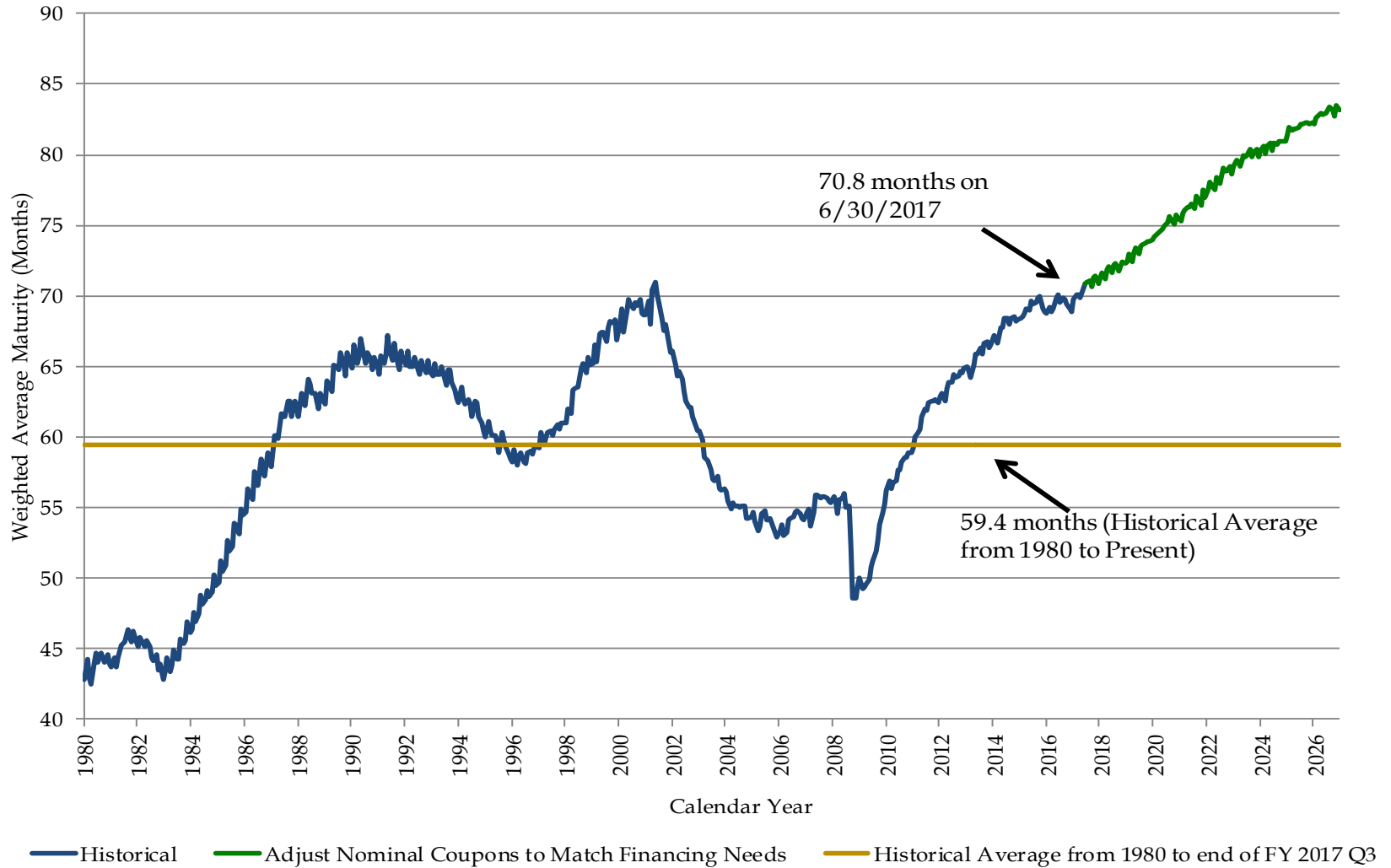


## Assumptions for Portfolio Metrics Section (pages 23 to 27) and Appendix

- Portfolio and SOMA holdings as of 06/30/2017.
- Full SOMA reinvestments until October 2017, followed by SOMA capped redemptions until the second half of 2021. These assumptions are based on the June FOMC addendum to the Policy Normalization Principles and Plans and expectations from the FRB-NY June 2017 Survey of Primary Dealers and the July projections for the SOMA portfolio.
- Assumes announced issuance sizes and patterns constant for nominal coupons, TIPS, and FRNs as of 06/30/2017, while using an average of ~\$1.7 trillion of bills outstanding.
- To match OMB's projected borrowing from the public for the next 10 years, nominal coupon securities (2-, 3-, 5-, 7-, 10-, and 30-year) were adjusted by the same percentage.
- The principal on the TIPS securities was accreted to each projection date based on market ZCIS levels as of 06/30/2017.
- OMB's estimates of borrowing from the public are Table S-10 of the "Budget of the U.S. Government Fiscal Year 2018."



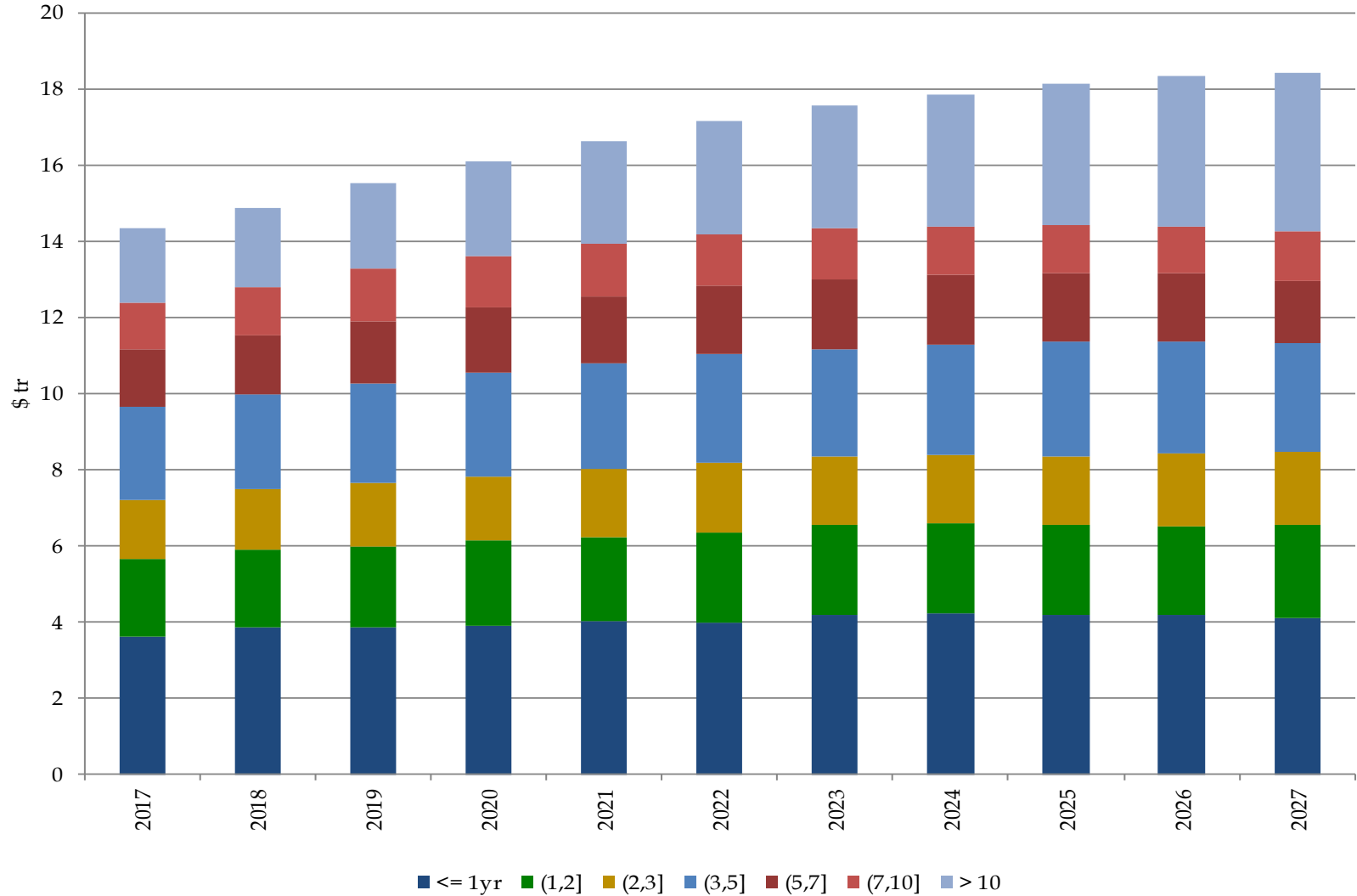
# Weighted Average Maturity of Marketable Debt Outstanding



This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury.



## Projected Maturity Profile from end of Fiscal Year



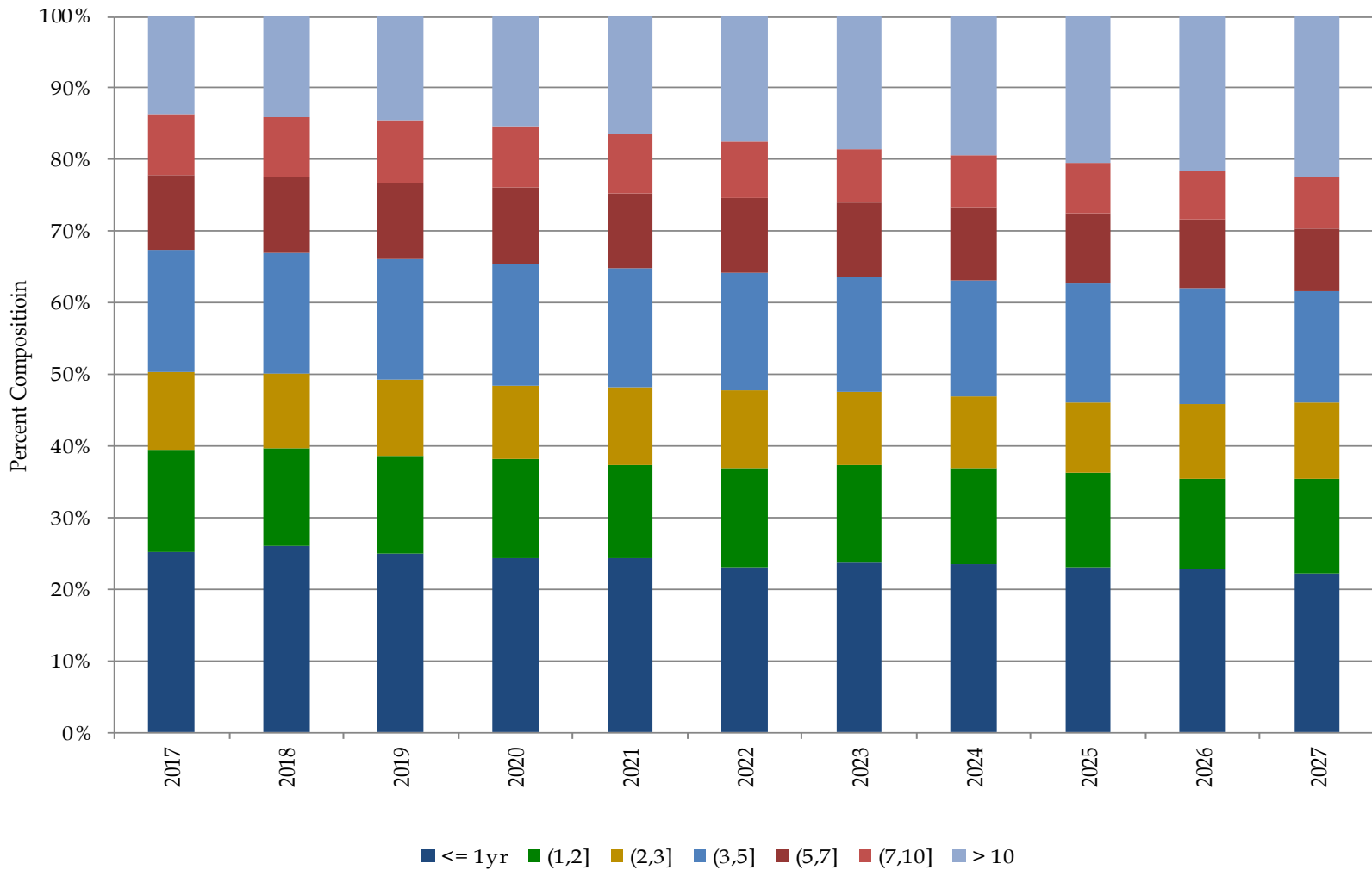
This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. See table on following page for details.

## Recent and Projected Maturity Profile, \$ billions

| End of Fiscal Year | <= 1yr | (1,2] | (2,3] | (3,5] | (5,7] | (7,10] | > 10  | Total  | (0,5]  |
|--------------------|--------|-------|-------|-------|-------|--------|-------|--------|--------|
| 2009               | 2,702  | 774   | 663   | 962   | 559   | 643    | 695   | 6,998  | 5,101  |
| 2010               | 2,563  | 1,141 | 895   | 1,273 | 907   | 856    | 853   | 8,488  | 5,872  |
| 2011               | 2,620  | 1,334 | 980   | 1,541 | 1,070 | 1,053  | 1,017 | 9,616  | 6,476  |
| 2012               | 2,951  | 1,373 | 1,104 | 1,811 | 1,214 | 1,108  | 1,181 | 10,742 | 7,239  |
| 2013               | 2,939  | 1,523 | 1,242 | 1,965 | 1,454 | 1,136  | 1,331 | 11,590 | 7,669  |
| 2014               | 2,935  | 1,739 | 1,319 | 2,207 | 1,440 | 1,113  | 1,528 | 12,281 | 8,199  |
| 2015               | 3,097  | 1,775 | 1,335 | 2,382 | 1,478 | 1,121  | 1,654 | 12,841 | 8,589  |
| 2016               | 3,423  | 1,828 | 1,538 | 2,406 | 1,501 | 1,151  | 1,800 | 13,648 | 9,195  |
| 2017               | 3,615  | 2,050 | 1,535 | 2,463 | 1,491 | 1,210  | 1,966 | 14,328 | 9,662  |
| 2018               | 3,867  | 2,045 | 1,558 | 2,510 | 1,559 | 1,245  | 2,095 | 14,879 | 9,979  |
| 2019               | 3,864  | 2,120 | 1,676 | 2,607 | 1,640 | 1,351  | 2,254 | 15,512 | 10,267 |
| 2020               | 3,908  | 2,244 | 1,642 | 2,759 | 1,702 | 1,355  | 2,482 | 16,093 | 10,553 |
| 2021               | 4,032  | 2,178 | 1,815 | 2,779 | 1,727 | 1,393  | 2,712 | 16,636 | 10,804 |
| 2022               | 3,966  | 2,382 | 1,840 | 2,834 | 1,784 | 1,372  | 2,981 | 17,161 | 11,023 |
| 2023               | 4,170  | 2,381 | 1,810 | 2,814 | 1,818 | 1,333  | 3,238 | 17,565 | 11,175 |
| 2024               | 4,202  | 2,374 | 1,824 | 2,867 | 1,832 | 1,294  | 3,470 | 17,863 | 11,267 |
| 2025               | 4,162  | 2,398 | 1,785 | 3,023 | 1,793 | 1,245  | 3,722 | 18,128 | 11,368 |
| 2026               | 4,186  | 2,307 | 1,923 | 2,947 | 1,782 | 1,244  | 3,937 | 18,326 | 11,364 |
| 2027               | 4,097  | 2,434 | 1,930 | 2,868 | 1,638 | 1,305  | 4,127 | 18,399 | 11,328 |

This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. Portfolio composition by original issuance type and term can be found in the appendix (Page 44).

## Projected Maturity Profile from end of Fiscal Year



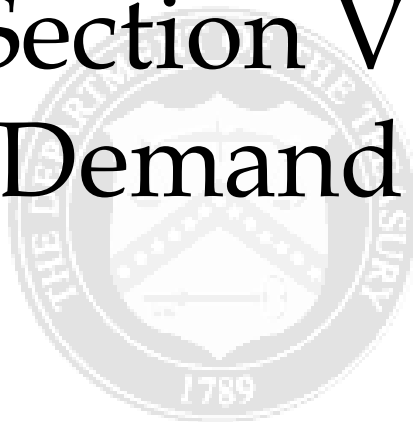
This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. See table on following page for details.

## Recent and Projected Maturity Profile, percent

| End of Fiscal Year | <= 1yr | (1,2] | (2,3] | (3,5] | (5,7] | (7,10] | > 10 | (0,3] | (0,5] |
|--------------------|--------|-------|-------|-------|-------|--------|------|-------|-------|
| 2009               | 38.6   | 11.1  | 9.5   | 13.7  | 8.0   | 9.2    | 9.9  | 59.1  | 72.9  |
| 2010               | 30.2   | 13.4  | 10.5  | 15.0  | 10.7  | 10.1   | 10.0 | 54.2  | 69.2  |
| 2011               | 27.2   | 13.9  | 10.2  | 16.0  | 11.1  | 10.9   | 10.6 | 51.3  | 67.3  |
| 2012               | 27.5   | 12.8  | 10.3  | 16.9  | 11.3  | 10.3   | 11.0 | 50.5  | 67.4  |
| 2013               | 25.4   | 13.1  | 10.7  | 17.0  | 12.5  | 9.8    | 11.5 | 49.2  | 66.2  |
| 2014               | 23.9   | 14.2  | 10.7  | 18.0  | 11.7  | 9.1    | 12.4 | 48.8  | 66.8  |
| 2015               | 24.1   | 13.8  | 10.4  | 18.5  | 11.5  | 8.7    | 12.9 | 48.3  | 66.9  |
| 2016               | 25.1   | 13.4  | 11.3  | 17.6  | 11.0  | 8.4    | 13.2 | 49.7  | 67.4  |
| 2017               | 25.2   | 14.3  | 10.7  | 17.2  | 10.4  | 8.4    | 13.7 | 50.2  | 67.4  |
| 2018               | 26.0   | 13.7  | 10.5  | 16.9  | 10.5  | 8.4    | 14.1 | 50.2  | 67.1  |
| 2019               | 24.9   | 13.7  | 10.8  | 16.8  | 10.6  | 8.7    | 14.5 | 49.4  | 66.2  |
| 2020               | 24.3   | 13.9  | 10.2  | 17.1  | 10.6  | 8.4    | 15.4 | 48.4  | 65.6  |
| 2021               | 24.2   | 13.1  | 10.9  | 16.7  | 10.4  | 8.4    | 16.3 | 48.2  | 64.9  |
| 2022               | 23.1   | 13.9  | 10.7  | 16.5  | 10.4  | 8.0    | 17.4 | 47.7  | 64.2  |
| 2023               | 23.7   | 13.6  | 10.3  | 16.0  | 10.4  | 7.6    | 18.4 | 47.6  | 63.6  |
| 2024               | 23.5   | 13.3  | 10.2  | 16.1  | 10.3  | 7.2    | 19.4 | 47.0  | 63.1  |
| 2025               | 23.0   | 13.2  | 9.8   | 16.7  | 9.9   | 6.9    | 20.5 | 46.0  | 62.7  |
| 2026               | 22.8   | 12.6  | 10.5  | 16.1  | 9.7   | 6.8    | 21.5 | 45.9  | 62.0  |
| 2027               | 22.3   | 13.2  | 10.5  | 15.6  | 8.9   | 7.1    | 22.4 | 46.0  | 61.6  |

This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. Portfolio composition by original issuance type and term can be found in the appendix (Page 44).

# Section V: Demand



## Summary Statistics for Fiscal Year 2017 Q3 Auctions

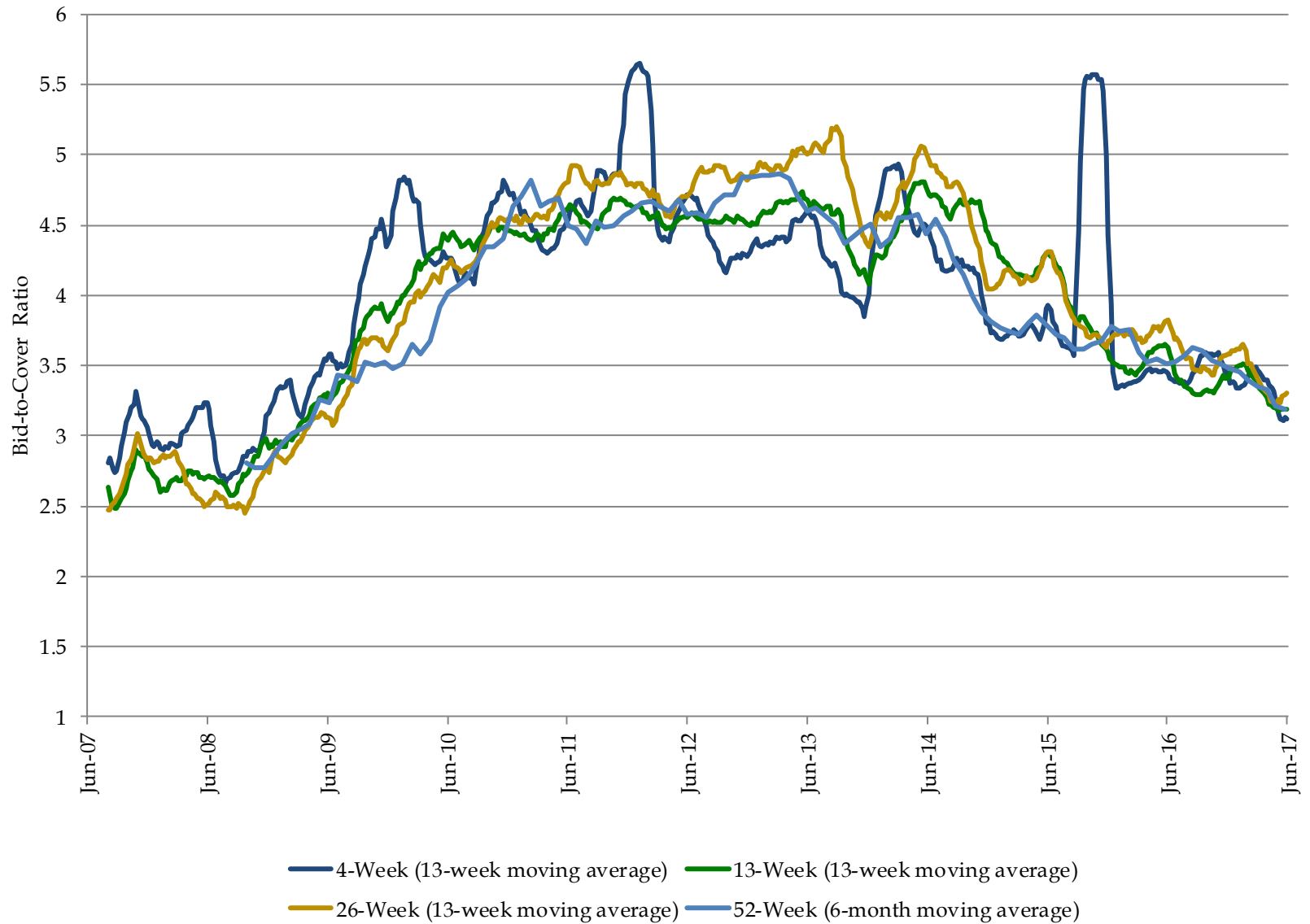
| Security Type | Term    | Stop Out Rate (%)* | Bid-to-Cover Ratio* | Competitive Awards (\$bn) | % Primary Dealer* | % Direct* | % Indirect* | Non-Competitive Awards (\$bn) | SOMA Add Ons (\$bn) | 10-Year Equivalent (\$bn)** |
|---------------|---------|--------------------|---------------------|---------------------------|-------------------|-----------|-------------|-------------------------------|---------------------|-----------------------------|
| Bill          | 4-Week  | 0.772              | 3.1                 | 634.1                     | 58.0              | 6.7       | 35.3        | 5.1                           | 0.0                 | 5.6                         |
| Bill          | 13-Week | 0.905              | 3.2                 | 497.3                     | 54.2              | 8.8       | 37.0        | 6.5                           | 0.0                 | 14.3                        |
| Bill          | 26-Week | 1.022              | 3.3                 | 416.6                     | 48.6              | 4.2       | 47.2        | 5.6                           | 0.0                 | 24.2                        |
| Bill          | 52-Week | 1.141              | 3.1                 | 58.7                      | 59.0              | 4.3       | 36.7        | 0.7                           | 0.0                 | 6.8                         |
| Bill          | CMB     | 0.735              | 3.1                 | 25.0                      | 56.7              | 12.6      | 30.7        | 0.0                           | 0.0                 | 0.1                         |
| Coupon        | 2-Year  | 1.315              | 2.9                 | 77.2                      | 28.4              | 14.1      | 57.6        | 0.5                           | 9.8                 | 19.7                        |
| Coupon        | 3-Year  | 1.532              | 2.8                 | 71.5                      | 36.0              | 8.0       | 56.1        | 0.2                           | 8.1                 | 26.8                        |
| Coupon        | 5-Year  | 1.845              | 2.4                 | 101.8                     | 28.6              | 7.7       | 63.7        | 0.2                           | 12.9                | 62.4                        |
| Coupon        | 7-Year  | 2.067              | 2.6                 | 84.0                      | 18.5              | 12.0      | 69.5        | 0.0                           | 10.6                | 70.1                        |
| Coupon        | 10-Year | 2.313              | 2.4                 | 63.0                      | 30.9              | 5.2       | 63.9        | 0.0                           | 7.8                 | 71.4                        |
| Coupon        | 30-Year | 2.960              | 2.2                 | 39.0                      | 31.9              | 5.9       | 62.2        | 0.0                           | 5.1                 | 99.3                        |
| TIPS          | 5-Year  | -0.049             | 2.5                 | 15.9                      | 16.7              | 9.2       | 74.2        | 0.1                           | 0.0                 | 9.1                         |
| TIPS          | 10-Year | 0.420              | 2.6                 | 11.0                      | 11.3              | 8.4       | 80.3        | 0.0                           | 1.3                 | 13.1                        |
| TIPS          | 30-Year | 0.880              | 2.8                 | 5.0                       | 15.5              | 8.4       | 76.1        | 0.0                           | 0.6                 | 16.6                        |
| FRN           | 2-Year  | 0.067              | 3.2                 | 41.0                      | 43.7              | 0.4       | 55.9        | 0.0                           | 3.6                 | 0.0                         |

|               |       |     |         |      |     |      |      |      |       |
|---------------|-------|-----|---------|------|-----|------|------|------|-------|
| Total Bills   | 0.889 | 3.2 | 1,631.7 | 54.5 | 6.7 | 38.8 | 17.9 | 0.0  | 50.9  |
| Total Coupons | 1.910 | 2.6 | 436.5   | 28.5 | 9.2 | 62.4 | 0.9  | 54.2 | 349.7 |
| Total TIPS    | 0.258 | 2.6 | 31.9    | 14.6 | 8.8 | 76.6 | 0.1  | 1.9  | 38.8  |
| Total FRN     | 0.067 | 3.2 | 41.0    | 43.7 | 0.4 | 55.9 | 0.0  | 3.6  | 0.0   |

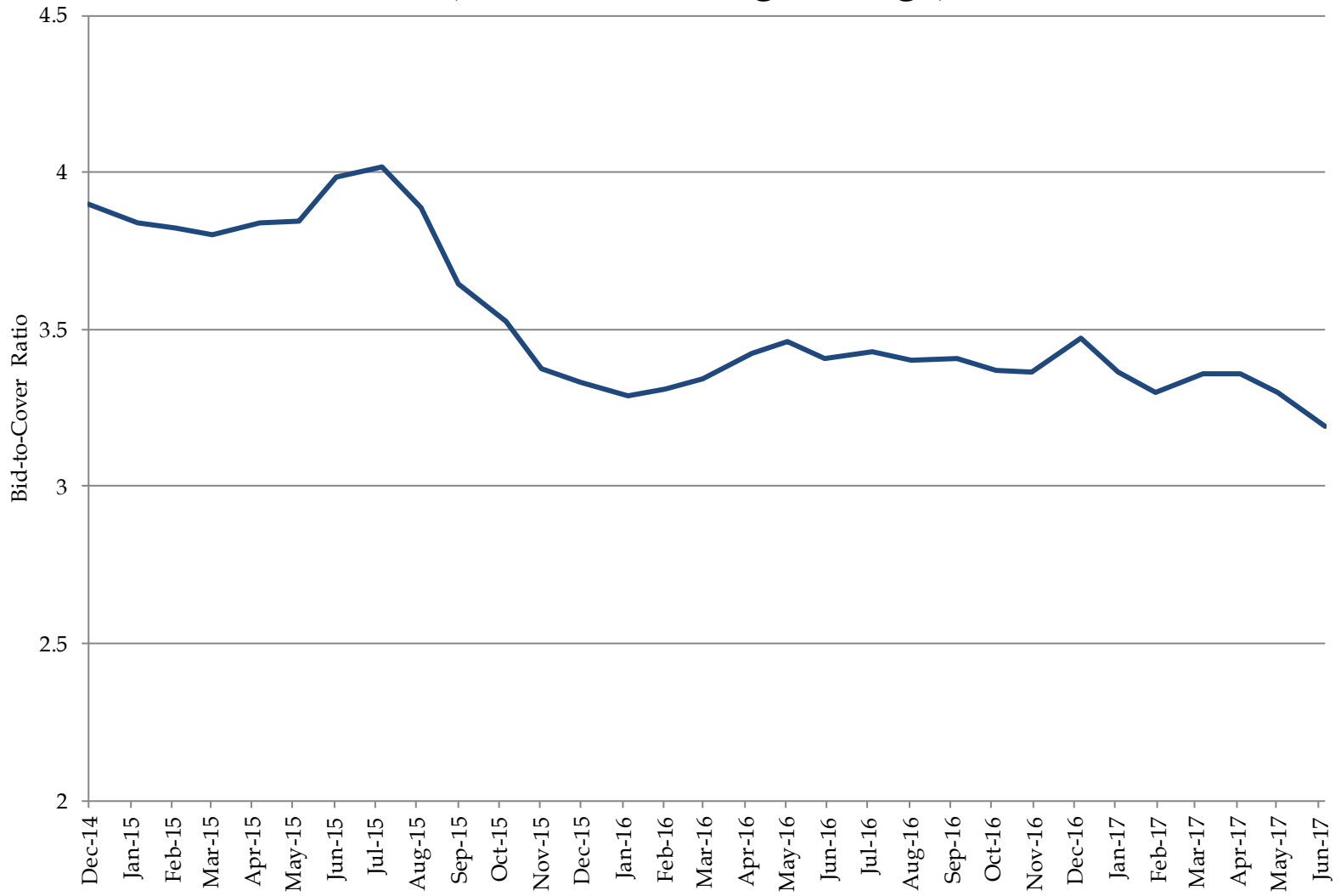
\*Weighted averages of Competitive Awards.

\*\*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.

# Bid-to-Cover Ratios for Treasury Bills

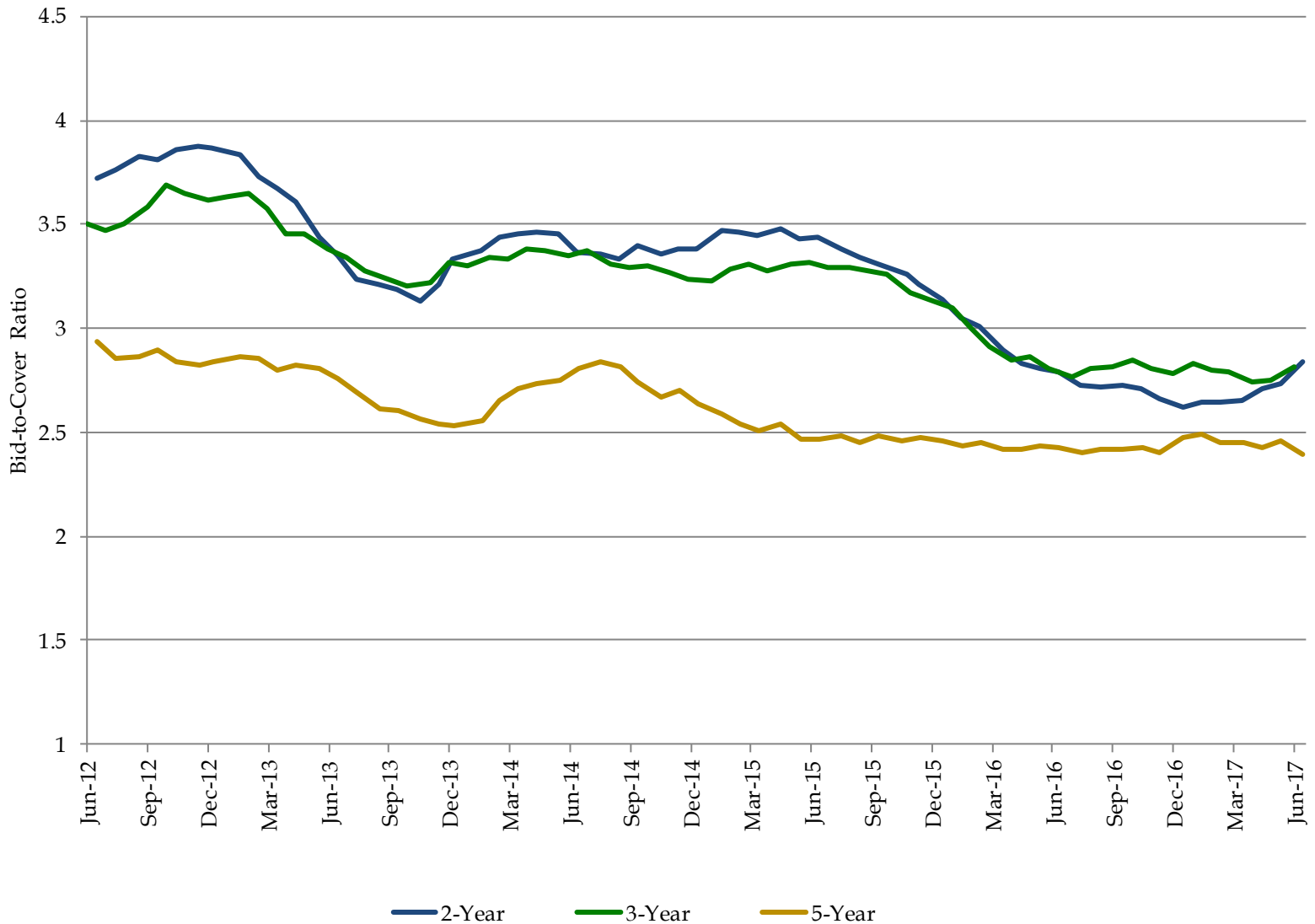


## Bid-to-Cover Ratios for FRNs (6-Month Moving Average)

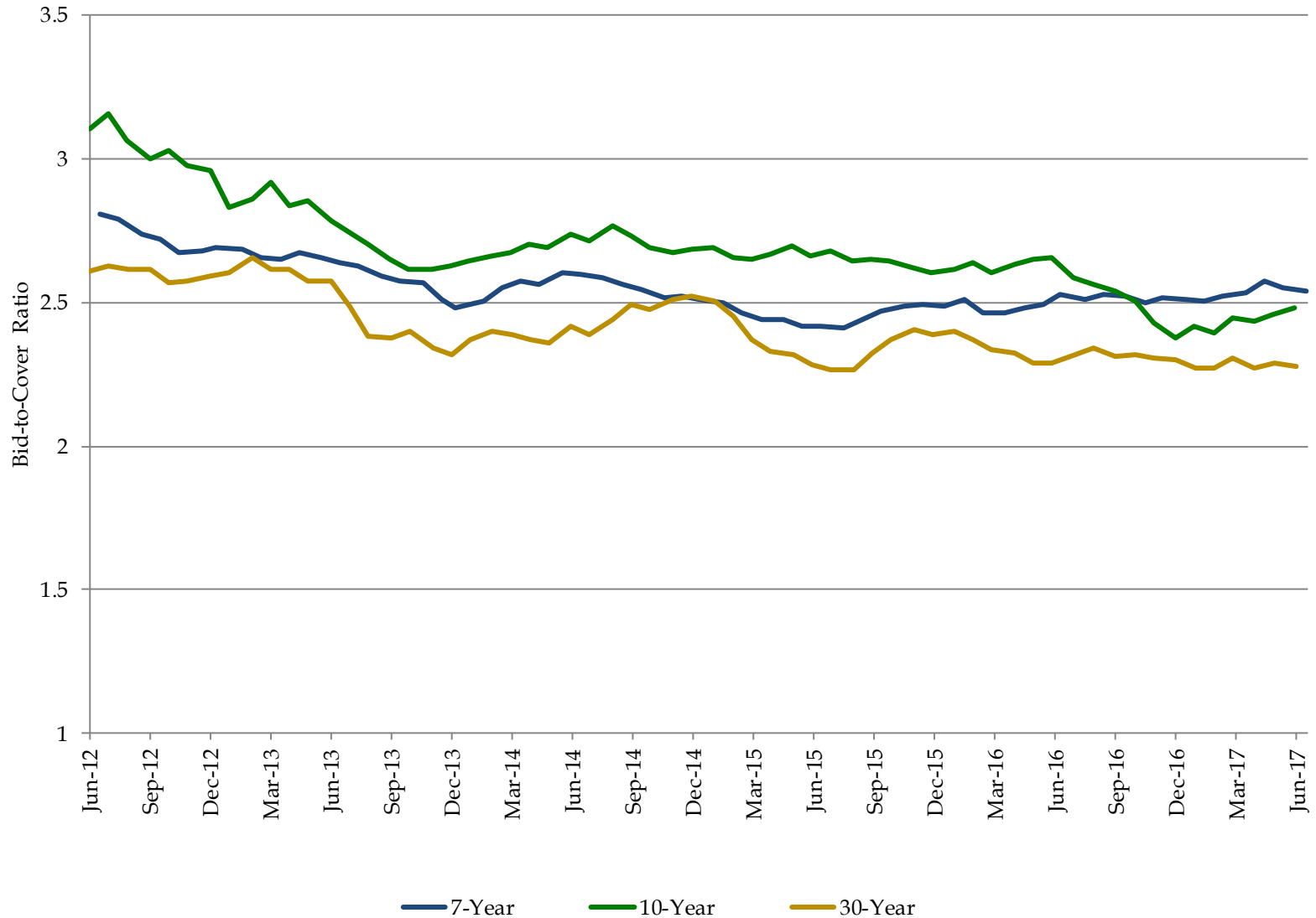




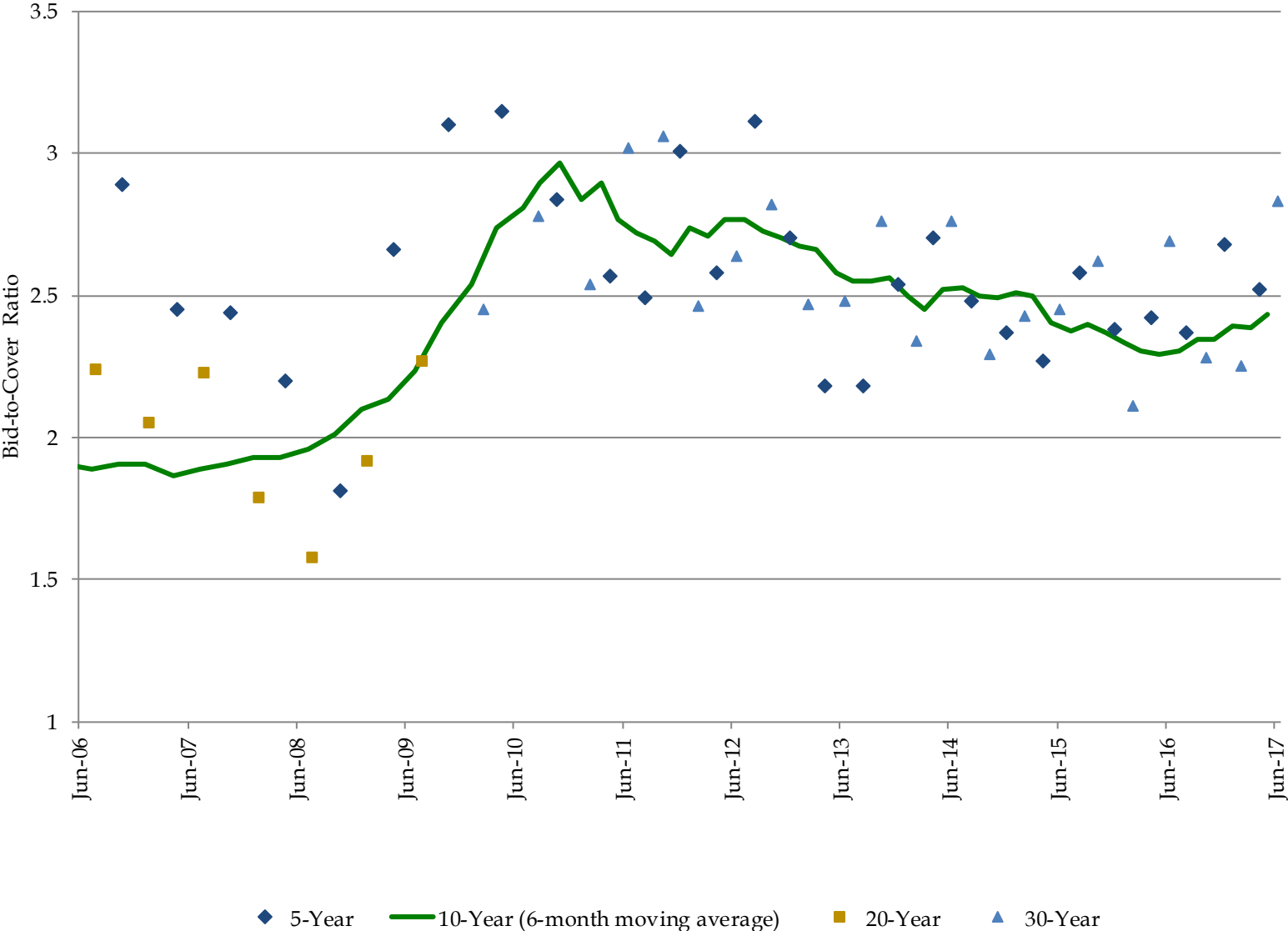
## Bid-to-Cover Ratios for 2-, 3-, and 5-Year Nominal Securities (6-Month Moving Average)



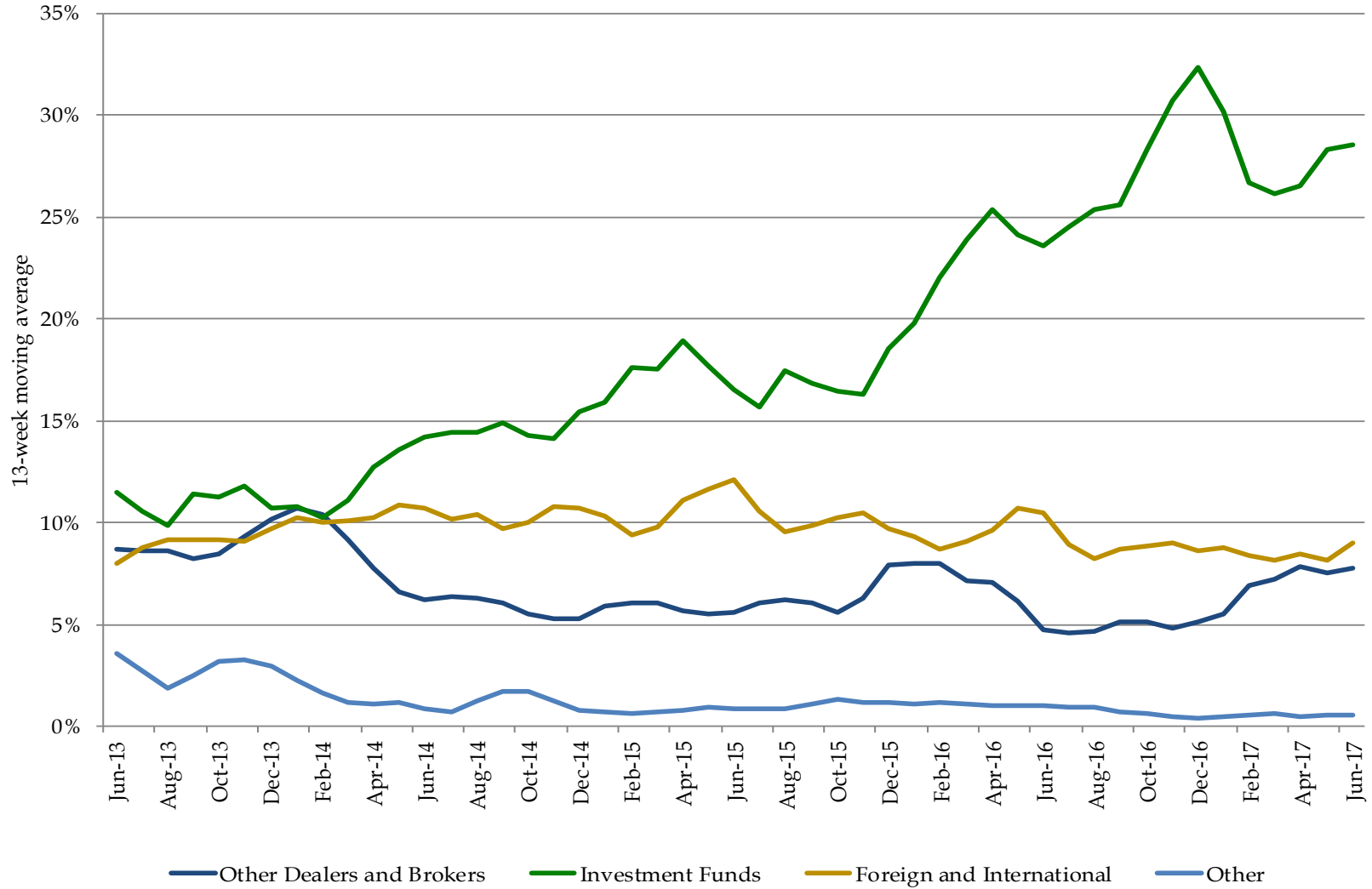
## Bid-to-Cover Ratios for 7-, 10-, and 30-Year Nominal Securities (6-Month Moving Average)



# Bid-to-Cover Ratios for TIPS

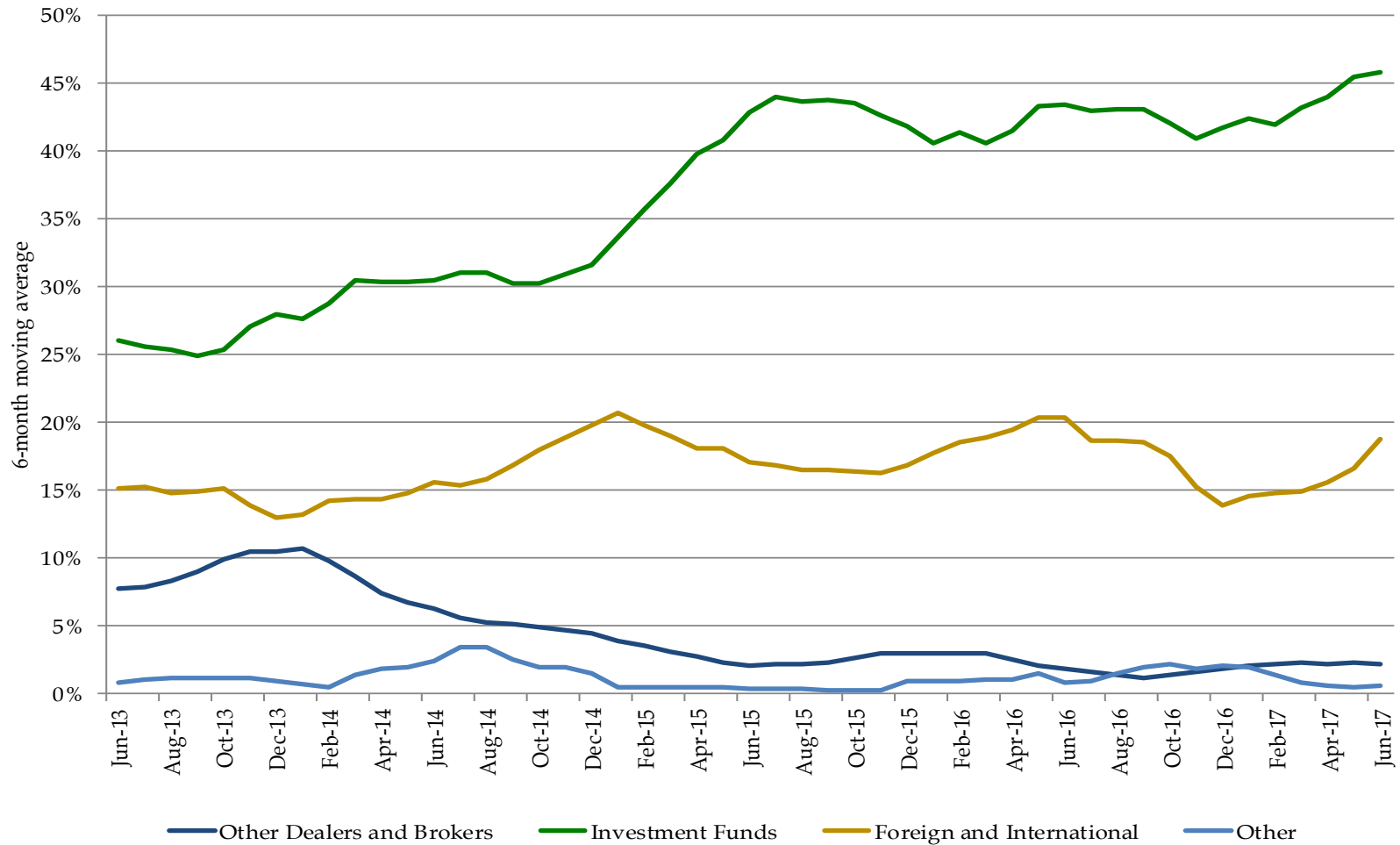


## Percent Awarded in Bill Auctions by Investor Class (13-Week Moving Average)



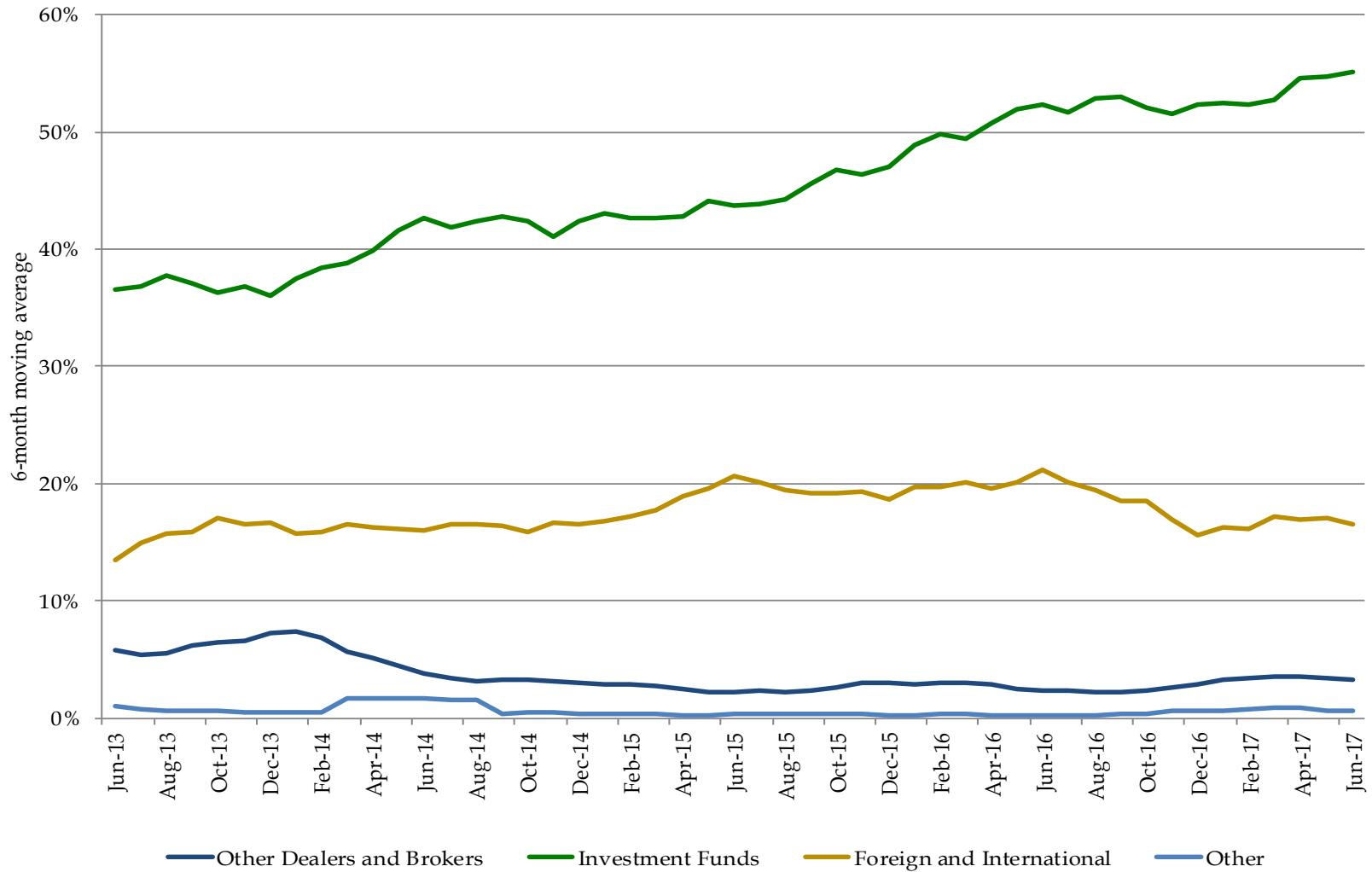
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



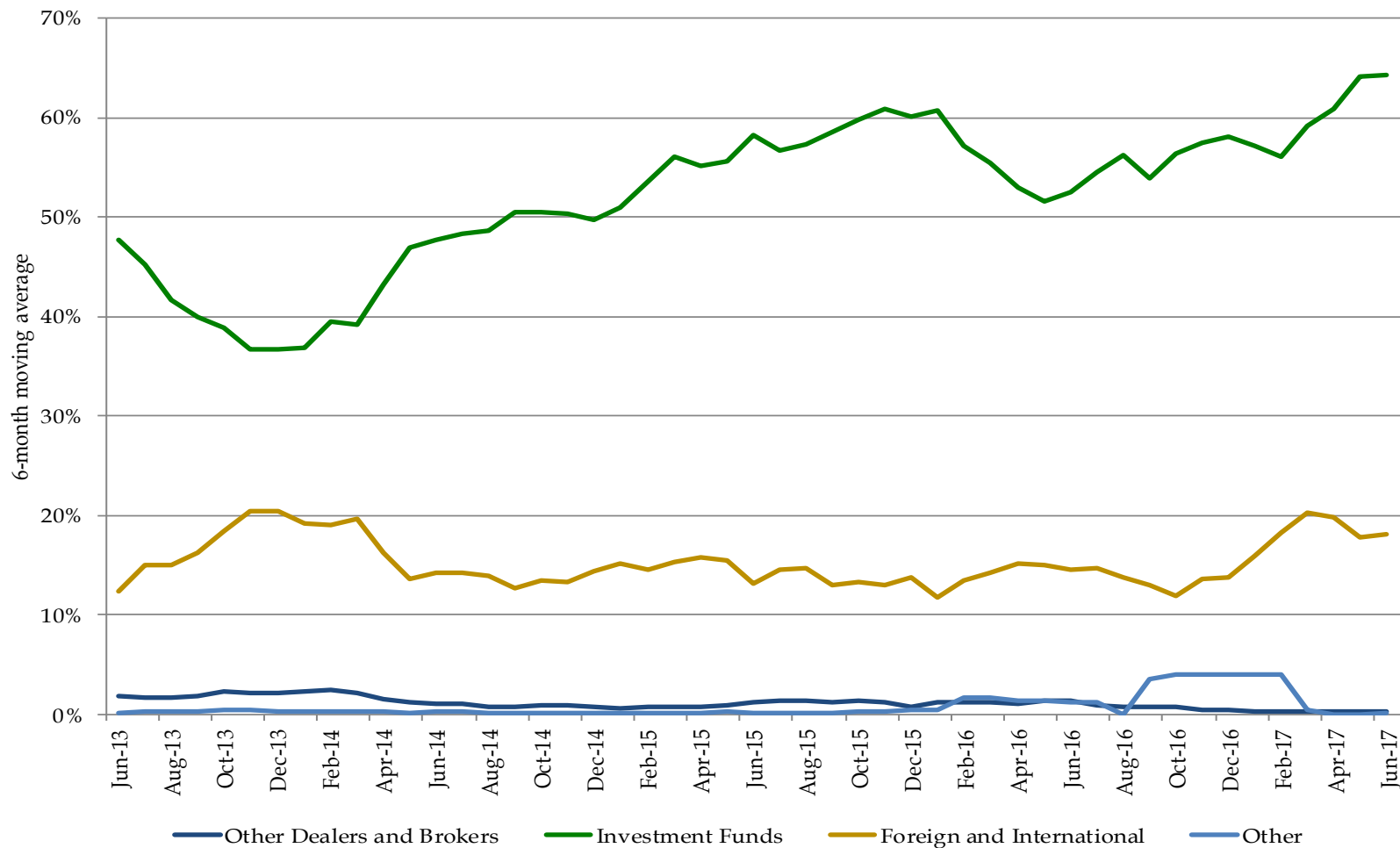
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

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



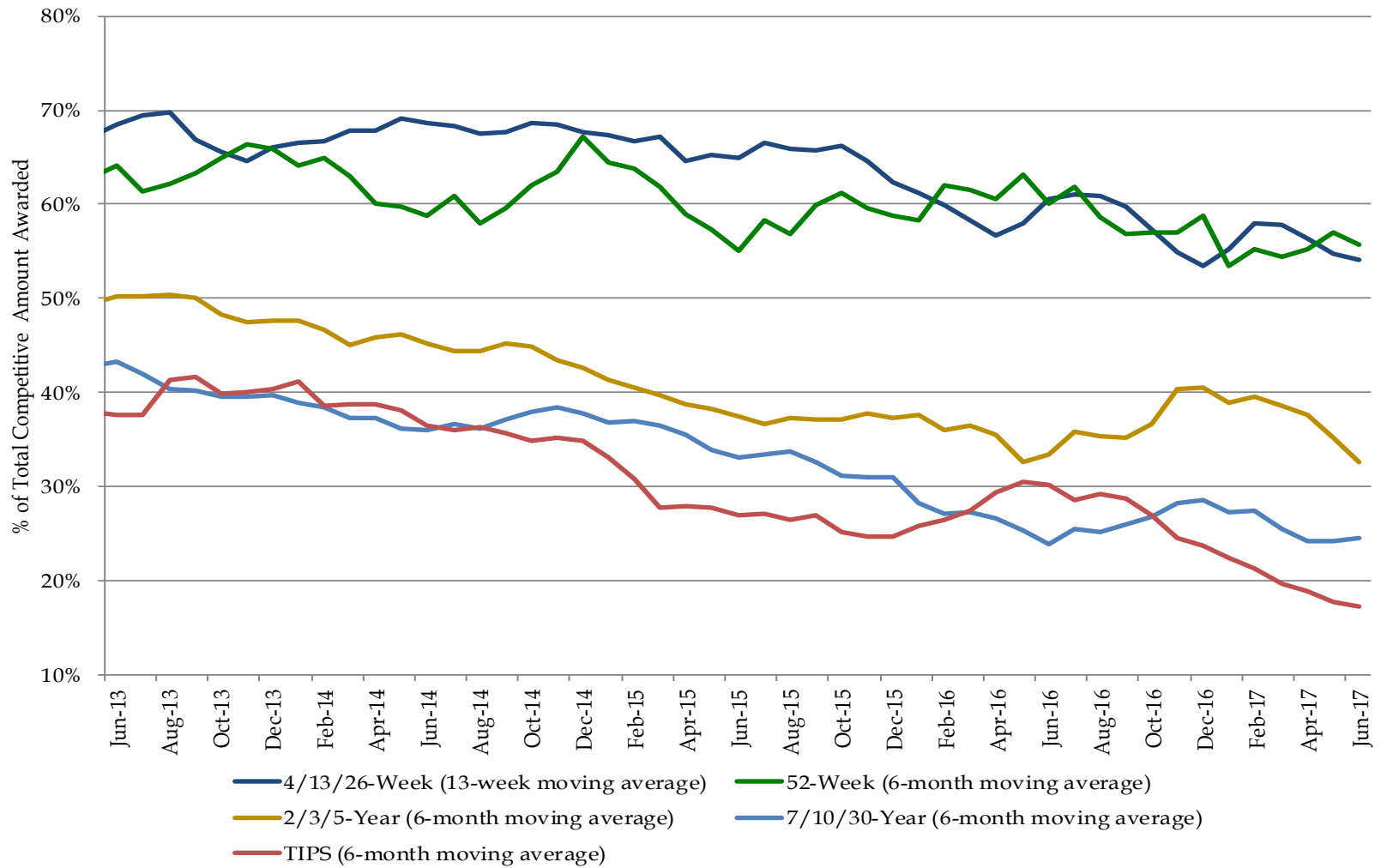
Excludes SOMA add-ons. The “Other” category includes categories that are each less than 5%, which include Depository Institutions, Individuals, Pension and Insurance.

## 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.

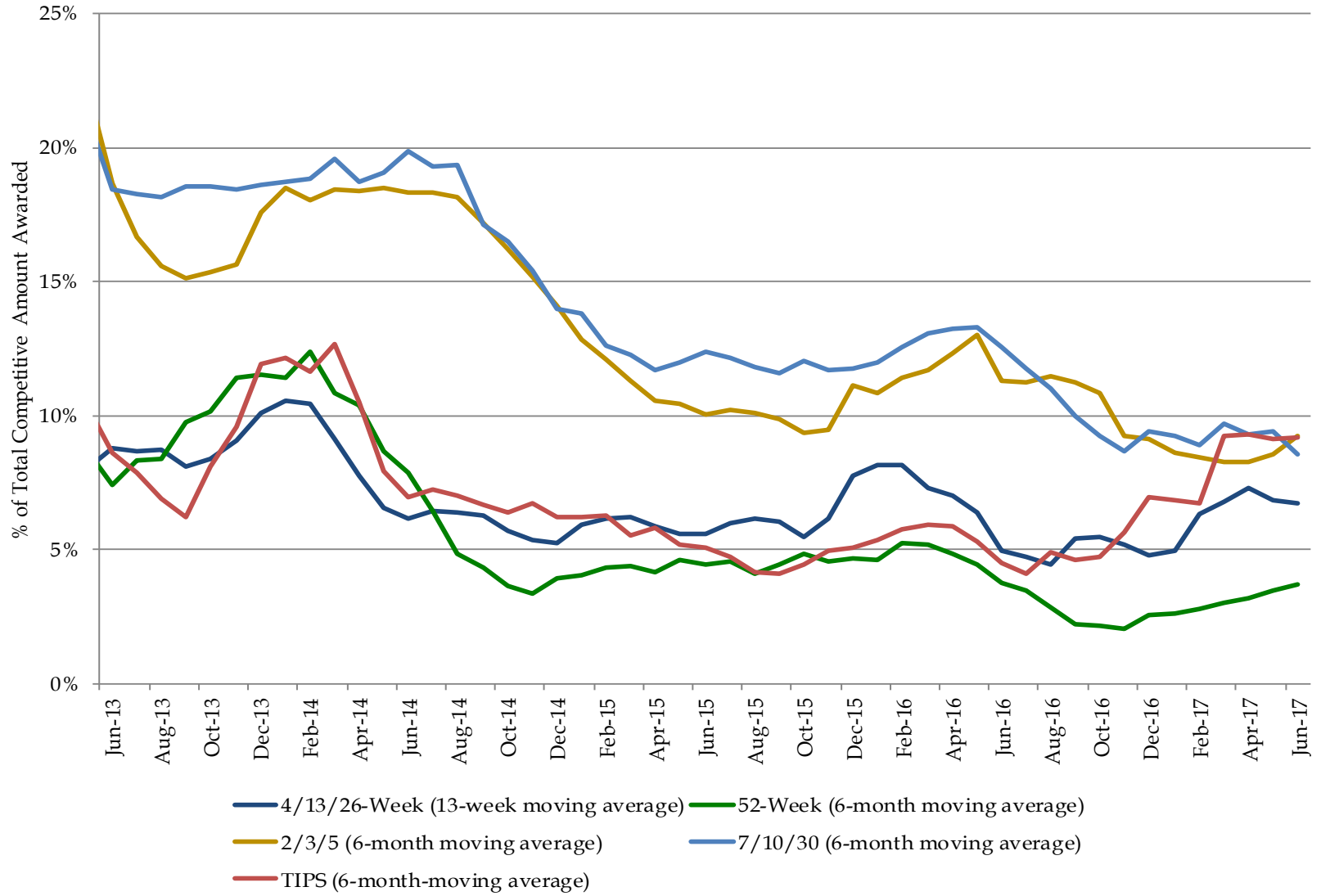
# Primary Dealer Awards at Auction



Excludes SOMA add-ons.

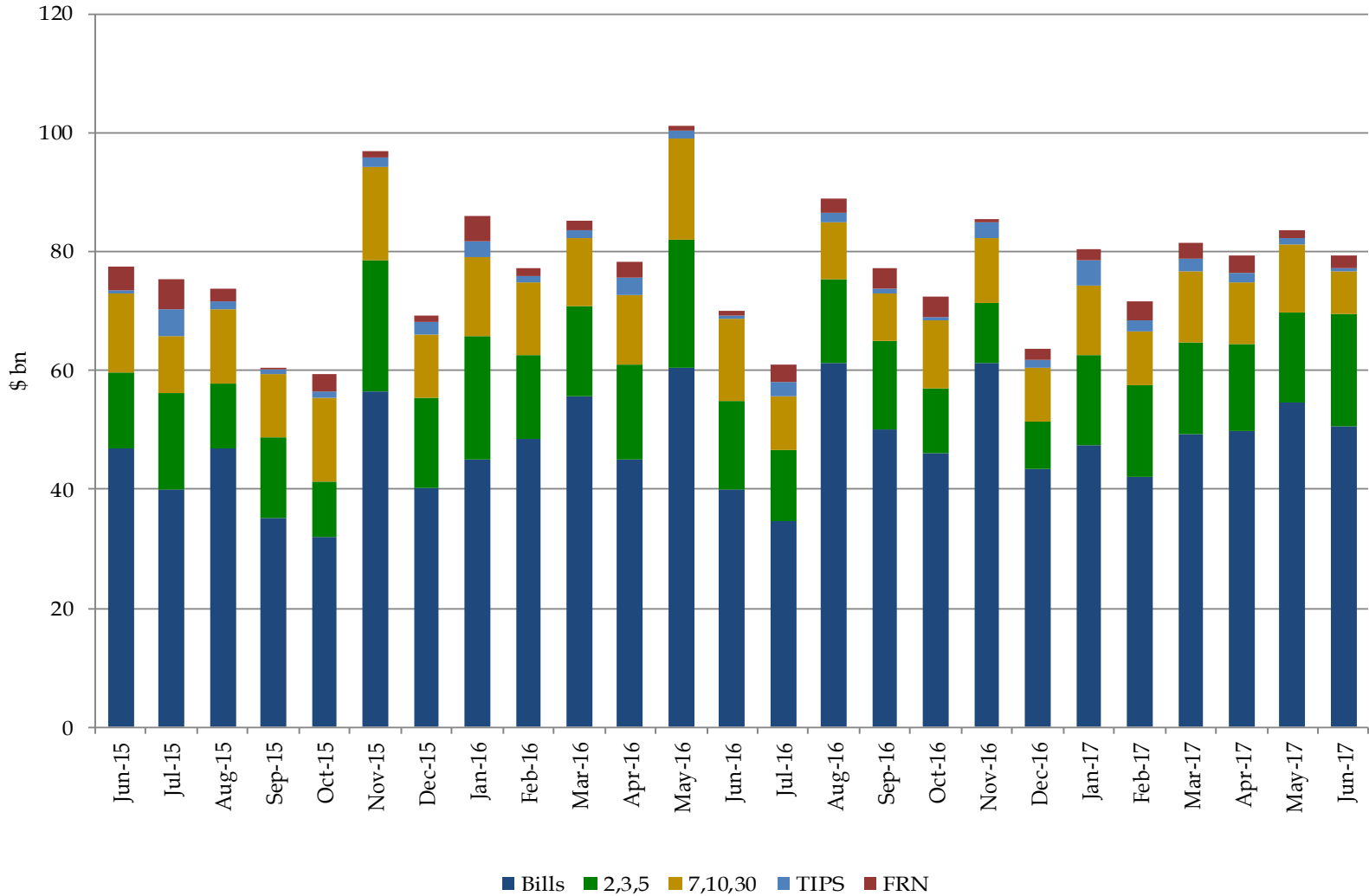


# Direct Bidder Awards at Auction



Excludes SOMA add-ons.

## Total Foreign Awards of Treasuries at Auction, \$ billions

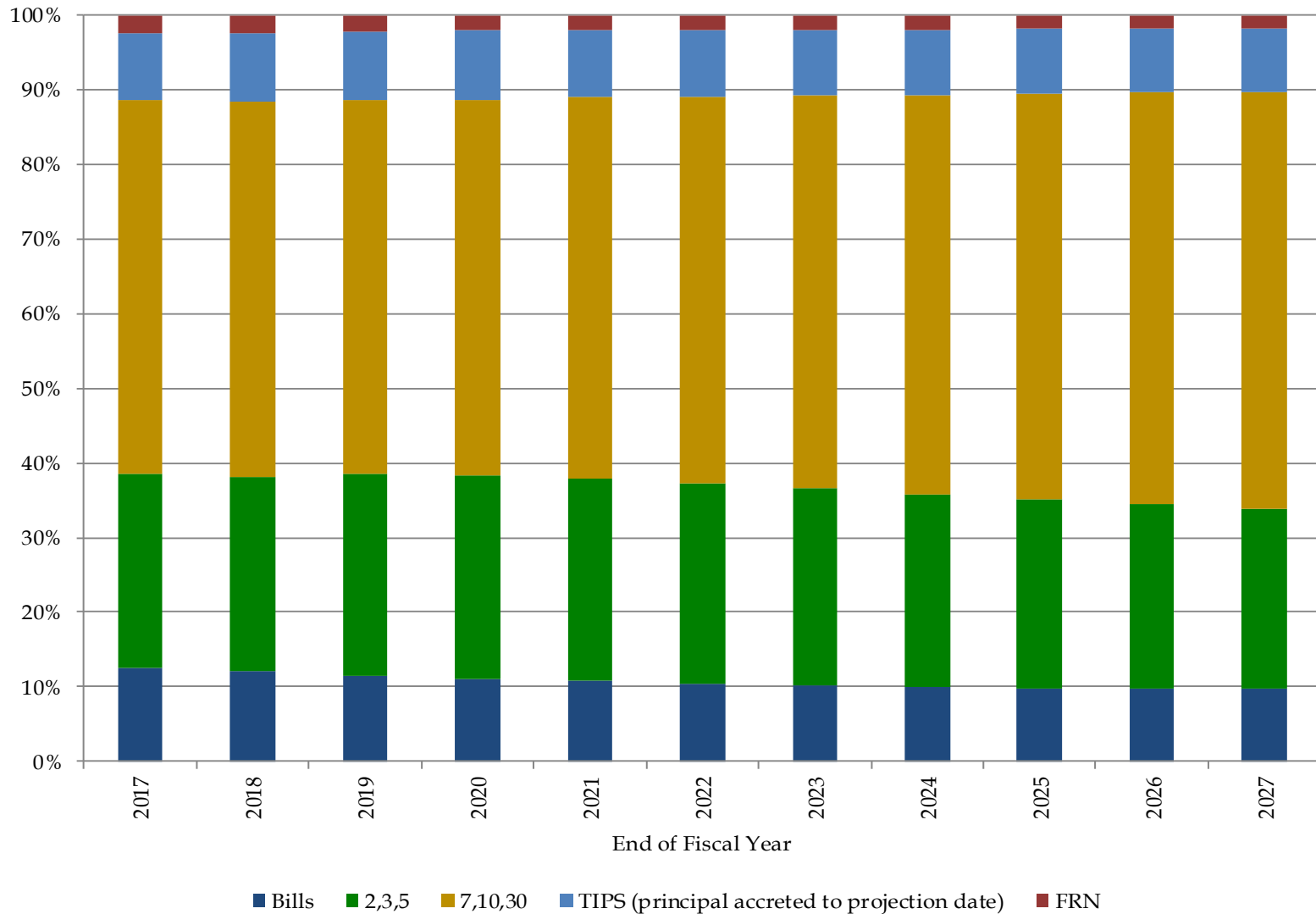


Foreign includes both private sector and official institutions.

# Appendix

The seal of the U.S. Department of the Treasury is centered behind the word "Appendix". The seal is circular and features a shield with a scale of justice, a sword, and a chevron with stars. The text "THE DEPARTMENT OF THE TREASURY" is written around the perimeter, and "1789" is at the bottom.

## Projected Portfolio Composition by Issuance Type



This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury. See table on following page for details.

## Recent and Projected Portfolio Composition by Issuance Type, Percent

| End of Fiscal Year | Bills | 2-, 3-, 5-Year Nominal Coupons | 7-, 10-, 30-Year Nominal Coupons | Total Nominal Coupons | TIPS (principal accreted to projection date) | FRN |
|--------------------|-------|--------------------------------|----------------------------------|-----------------------|--|-----|
| 2009               | 28.5  | 36.2                           | 27.4                             | 63.6                  | 7.9  | 0.0 |
| 2010               | 21.1  | 40.1                           | 31.8                             | 71.9                  | 7.0  | 0.0 |
| 2011               | 15.4  | 41.4                           | 35.9                             | 77.3                  | 7.3  | 0.0 |
| 2012               | 15.0  | 38.4                           | 39.0                             | 77.4                  | 7.5  | 0.0 |
| 2013               | 13.2  | 35.8                           | 43.0                             | 78.7                  | 8.1  | 0.0 |
| 2014               | 11.5  | 33.0                           | 46.0                             | 79.0                  | 8.5  | 1.0 |
| 2015               | 10.6  | 29.4                           | 49.0                             | 78.3                  | 8.8  | 2.2 |
| 2016               | 12.1  | 27.0                           | 49.6                             | 76.6                  | 8.9  | 2.4 |
| 2017               | 12.5  | 26.2                           | 50.0                             | 76.2                  | 9.0  | 2.4 |
| 2018               | 12.0  | 26.2                           | 50.4                             | 76.5                  | 9.2  | 2.3 |
| 2019               | 11.5  | 26.9                           | 50.1                             | 77.0                  | 9.3  | 2.2 |
| 2020               | 11.1  | 27.1                           | 50.5                             | 77.6                  | 9.2  | 2.1 |
| 2021               | 10.7  | 27.2                           | 51.1                             | 78.2                  | 9.1  | 2.0 |
| 2022               | 10.4  | 26.8                           | 51.9                             | 78.8                  | 8.9  | 1.9 |
| 2023               | 10.2  | 26.5                           | 52.6                             | 79.1                  | 8.9  | 1.9 |
| 2024               | 10.0  | 25.9                           | 53.4                             | 79.3                  | 8.8  | 1.9 |
| 2025               | 9.8   | 25.3                           | 54.4                             | 79.7                  | 8.6  | 1.8 |
| 2026               | 9.7   | 24.7                           | 55.3                             | 79.9                  | 8.5  | 1.8 |
| 2027               | 9.7   | 24.2                           | 55.8                             | 80.0                  | 8.5  | 1.8 |

This scenario does not represent any particular course of action that Treasury is expected to follow. Instead, it is intended to demonstrate the basic trajectory of average maturity absent changes to the mix of securities issued by Treasury.

| 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  | 4/6/2017    | 0.760              | 3.03                | 54.5                      | 61.3              | 9.2       | 29.5        | 0.4                           | 0.0                 | 0.5                        |
| 4-Week  | 4/13/2017   | 0.760              | 3.09                | 54.6                      | 56.3              | 5.6       | 38.1        | 0.3                           | 0.0                 | 0.5                        |
| 4-Week  | 4/20/2017   | 0.750              | 3.25                | 54.5                      | 50.8              | 7.1       | 42.1        | 0.4                           | 0.0                 | 0.5                        |
| 4-Week  | 4/27/2017   | 0.735              | 3.32                | 59.6                      | 49.7              | 10.5      | 39.7        | 0.4                           | 0.0                 | 0.5                        |
| 4-Week  | 5/4/2017    | 0.725              | 2.99                | 54.6                      | 64.1              | 7.1       | 28.8        | 0.4                           | 0.0                 | 0.5                        |
| 4-Week  | 5/11/2017   | 0.710              | 3.25                | 54.5                      | 53.7              | 8.1       | 38.1        | 0.4                           | 0.0                 | 0.5                        |
| 4-Week  | 5/18/2017   | 0.695              | 2.99                | 54.5                      | 51.9              | 4.9       | 43.2        | 0.4                           | 0.0                 | 0.5                        |
| 4-Week  | 5/25/2017   | 0.735              | 2.85                | 54.5                      | 67.2              | 4.1       | 28.7        | 0.4                           | 0.0                 | 0.5                        |
| 4-Week  | 6/1/2017    | 0.840              | 2.68                | 44.6                      | 75.6              | 4.5       | 19.9        | 0.4                           | 0.0                 | 0.4                        |
| 4-Week  | 6/8/2017    | 0.840              | 3.35                | 39.5                      | 46.4              | 7.6       | 46.0        | 0.4                           | 0.0                 | 0.3                        |
| 4-Week  | 6/15/2017   | 0.885              | 3.27                | 34.5                      | 65.4              | 3.3       | 31.3        | 0.4                           | 0.0                 | 0.3                        |
| 4-Week  | 6/22/2017   | 0.850              | 3.42                | 34.6                      | 53.9              | 4.8       | 41.3        | 0.4                           | 0.0                 | 0.3                        |
| 4-Week  | 6/29/2017   | 0.890              | 3.11                | 39.6                      | 60.1              | 8.1       | 31.9        | 0.4                           | 0.0                 | 0.3                        |
| 13-Week | 4/6/2017    | 0.790              | 3.14                | 38.5                      | 64.2              | 8.2       | 27.6        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 4/13/2017   | 0.825              | 3.28                | 38.5                      | 43.5              | 8.1       | 48.4        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 4/20/2017   | 0.820              | 3.11                | 38.4                      | 54.1              | 10.9      | 35.0        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 4/27/2017   | 0.820              | 3.09                | 37.5                      | 60.3              | 12.7      | 27.0        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 5/4/2017    | 0.845              | 3.03                | 38.4                      | 73.7              | 7.9       | 18.4        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 5/11/2017   | 0.900              | 3.23                | 38.3                      | 44.7              | 12.4      | 42.9        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 5/18/2017   | 0.905              | 3.09                | 38.3                      | 59.1              | 7.1       | 33.8        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 5/25/2017   | 0.920              | 3.23                | 38.4                      | 42.0              | 7.3       | 50.7        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 6/1/2017    | 0.960              | 3.17                | 37.5                      | 53.2              | 7.4       | 39.4        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 6/8/2017    | 0.980              | 3.28                | 38.5                      | 42.1              | 6.7       | 51.3        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 6/15/2017   | 0.990              | 3.51                | 38.3                      | 46.5              | 8.8       | 44.7        | 0.5                           | 0.0                 | 1.1                        |
| 13-Week | 6/22/2017   | 1.010              | 3.18                | 38.2                      | 63.0              | 7.3       | 29.7        | 0.6                           | 0.0                 | 1.1                        |
| 13-Week | 6/29/2017   | 1.000              | 3.10                | 38.3                      | 58.2              | 10.1      | 31.7        | 0.5                           | 0.0                 | 1.1                        |
| 26-Week | 4/6/2017    | 0.910              | 3.29                | 32.0                      | 60.8              | 4.1       | 35.1        | 0.5                           | 0.0                 | 1.9                        |
| 26-Week | 4/13/2017   | 0.950              | 3.25                | 32.0                      | 38.5              | 2.3       | 59.2        | 0.4                           | 0.0                 | 1.9                        |
| 26-Week | 4/20/2017   | 0.945              | 3.14                | 32.2                      | 64.4              | 5.6       | 30.1        | 0.4                           | 0.0                 | 1.9                        |
| 26-Week | 4/27/2017   | 0.955              | 3.42                | 31.6                      | 49.4              | 4.9       | 45.7        | 0.4                           | 0.0                 | 1.9                        |
| 26-Week | 5/4/2017    | 0.975              | 3.25                | 32.1                      | 55.9              | 3.5       | 40.6        | 0.4                           | 0.0                 | 1.9                        |
| 26-Week | 5/11/2017   | 1.015              | 3.01                | 32.3                      | 50.9              | 3.9       | 45.1        | 0.4                           | 0.0                 | 1.9                        |
| 26-Week | 5/18/2017   | 1.020              | 3.15                | 32.2                      | 43.8              | 3.6       | 52.6        | 0.5                           | 0.0                 | 1.8                        |
| 26-Week | 5/25/2017   | 1.050              | 3.06                | 32.2                      | 50.9              | 3.2       | 45.8        | 0.4                           | 0.0                 | 1.8                        |
| 26-Week | 6/1/2017    | 1.060              | 3.62                | 31.6                      | 31.7              | 8.2       | 60.1        | 0.4                           | 0.0                 | 1.8                        |
| 26-Week | 6/8/2017    | 1.070              | 3.35                | 32.4                      | 36.6              | 4.1       | 59.3        | 0.3                           | 0.0                 | 1.9                        |
| 26-Week | 6/15/2017   | 1.100              | 3.76                | 32.3                      | 45.4              | 4.4       | 50.2        | 0.4                           | 0.0                 | 1.9                        |
| 26-Week | 6/22/2017   | 1.120              | 3.35                | 32.2                      | 52.8              | 2.9       | 44.2        | 0.5                           | 0.0                 | 1.9                        |
| 26-Week | 6/29/2017   | 1.110              | 3.35                | 31.6                      | 50.7              | 4.0       | 45.4        | 0.5                           | 0.0                 | 1.9                        |
| 52-Week | 4/27/2017   | 1.060              | 3.23                | 19.2                      | 58.1              | 3.1       | 38.7        | 0.2                           | 0.0                 | 2.3                        |
| 52-Week | 5/25/2017   | 1.145              | 2.84                | 19.8                      | 73.4              | 3.4       | 23.2        | 0.2                           | 0.0                 | 2.2                        |
| 52-Week | 6/22/2017   | 1.215              | 3.31                | 19.7                      | 45.3              | 6.4       | 48.2        | 0.3                           | 0.0                 | 2.3                        |
| CMB     | 4/11/2017   | 0.720              | 4.61                | 0.0                       | 100.0             | 0.0       | 0.0         | 0.0                           | 0.0                 | 0.0                        |
| CMB     | 6/1/2017    | 0.735              | 3.14                | 25.0                      | 56.7              | 12.6      | 30.8        | 0.0                           | 0.0                 | 0.1                        |

\*Weighted averages of competitive awards.

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

| Nominal Coupons |             |                    |                     |                           |                   |           |             |                               |                     |                            |
|-----------------|-------------|--------------------|---------------------|---------------------------|-------------------|-----------|-------------|-------------------------------|---------------------|----------------------------|
| 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          | 5/1/2017    | 1.280              | 2.85                | 25.7                      | 29.7              | 11.4      | 58.9        | 0.2                           | 3.5                 | 6.7                        |
| 2-Year          | 5/31/2017   | 1.316              | 2.90                | 25.8                      | 30.4              | 12.4      | 57.2        | 0.1                           | 3.1                 | 6.5                        |
| 2-Year          | 6/30/2017   | 1.348              | 3.03                | 25.7                      | 25.0              | 18.3      | 56.6        | 0.2                           | 3.2                 | 6.6                        |
| 3-Year          | 4/17/2017   | 1.525              | 2.62                | 23.8                      | 39.9              | 8.3       | 51.8        | 0.1                           | 0.2                 | 8.1                        |
| 3-Year          | 5/15/2017   | 1.572              | 2.76                | 23.9                      | 39.9              | 9.3       | 50.8        | 0.0                           | 7.9                 | 10.8                       |
| 3-Year          | 6/15/2017   | 1.500              | 3.00                | 23.8                      | 28.2              | 6.2       | 65.6        | 0.1                           | 0.0                 | 8.0                        |
| 5-Year          | 5/1/2017    | 1.875              | 2.34                | 34.0                      | 37.4              | 5.3       | 57.3        | 0.0                           | 4.6                 | 21.1                       |
| 5-Year          | 5/31/2017   | 1.831              | 2.67                | 33.9                      | 22.7              | 8.6       | 68.7        | 0.1                           | 4.1                 | 20.5                       |
| 5-Year          | 6/30/2017   | 1.828              | 2.33                | 33.9                      | 25.6              | 9.2       | 65.2        | 0.1                           | 4.1                 | 20.8                       |
| 7-Year          | 5/1/2017    | 2.084              | 2.73                | 28.0                      | 8.8               | 9.5       | 81.7        | 0.0                           | 3.8                 | 23.7                       |
| 7-Year          | 5/31/2017   | 2.060              | 2.54                | 28.0                      | 21.6              | 17.2      | 61.2        | 0.0                           | 3.4                 | 23.1                       |
| 7-Year          | 6/30/2017   | 2.056              | 2.46                | 28.0                      | 25.2              | 9.4       | 65.4        | 0.0                           | 3.4                 | 23.3                       |
| 10-Year         | 4/17/2017   | 2.332              | 2.48                | 20.0                      | 29.5              | 5.3       | 65.2        | 0.0                           | 0.2                 | 20.1                       |
| 10-Year         | 5/15/2017   | 2.400              | 2.33                | 23.0                      | 34.2              | 5.1       | 60.7        | 0.0                           | 7.6                 | 31.3                       |
| 10-Year         | 6/15/2017   | 2.195              | 2.54                | 20.0                      | 28.6              | 5.3       | 66.1        | 0.0                           | 0.0                 | 20.0                       |
| 30-Year         | 4/17/2017   | 2.938              | 2.23                | 12.0                      | 29.7              | 5.8       | 64.5        | 0.0                           | 0.1                 | 27.1                       |
| 30-Year         | 5/15/2017   | 3.050              | 2.19                | 15.0                      | 35.6              | 5.3       | 59.1        | 0.0                           | 5.0                 | 45.2                       |
| 30-Year         | 6/15/2017   | 2.870              | 2.32                | 12.0                      | 29.6              | 6.7       | 63.7        | 0.0                           | 0.0                 | 27.0                       |
| 2-Year FRN      | 5/1/2017    | 0.070              | 3.35                | 15.0                      | 36.9              | 0.3       | 62.8        | 0.0                           | 2.0                 | 0.0                        |
| 2-Year FRN      | 5/26/2017   | 0.050              | 2.99                | 13.0                      | 58.4              | 0.8       | 40.8        | 0.0                           | 0.0                 | 0.0                        |
| 2-Year FRN      | 6/30/2017   | 0.080              | 3.13                | 13.0                      | 36.7              | 0.2       | 63.1        | 0.0                           | 1.6                 | 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  | 4/28/2017   | (0.049)            | 2.52                | 15.9                      | 16.7              | 9.2       | 74.2        | 0.1                           | 0.0                 | 9.1                        |
| 10-Year TIPS | 5/31/2017   | 0.420              | 2.56                | 11.0                      | 11.3              | 8.4       | 80.3        | 0.0                           | 1.3                 | 13.1                       |
| 30-Year TIPS | 6/30/2017   | 0.880              | 2.83                | 5.0                       | 15.5              | 8.4       | 76.1        | 0.0                           | 0.6                 | 16.6                       |

\*Weighted averages of competitive awards.

\*\*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.