Office of Debt Management

Fiscal Year 2012 Q1 Report

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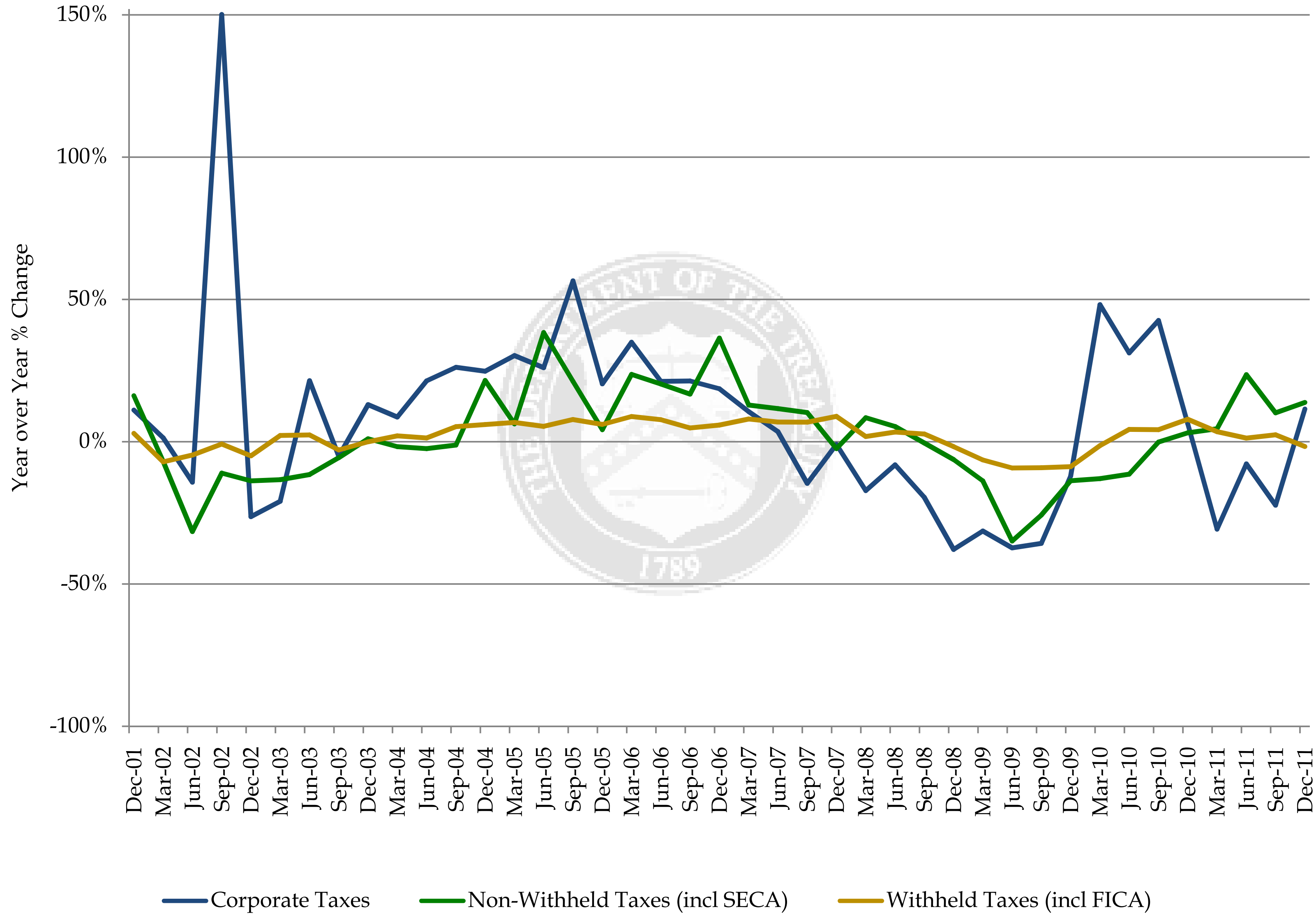
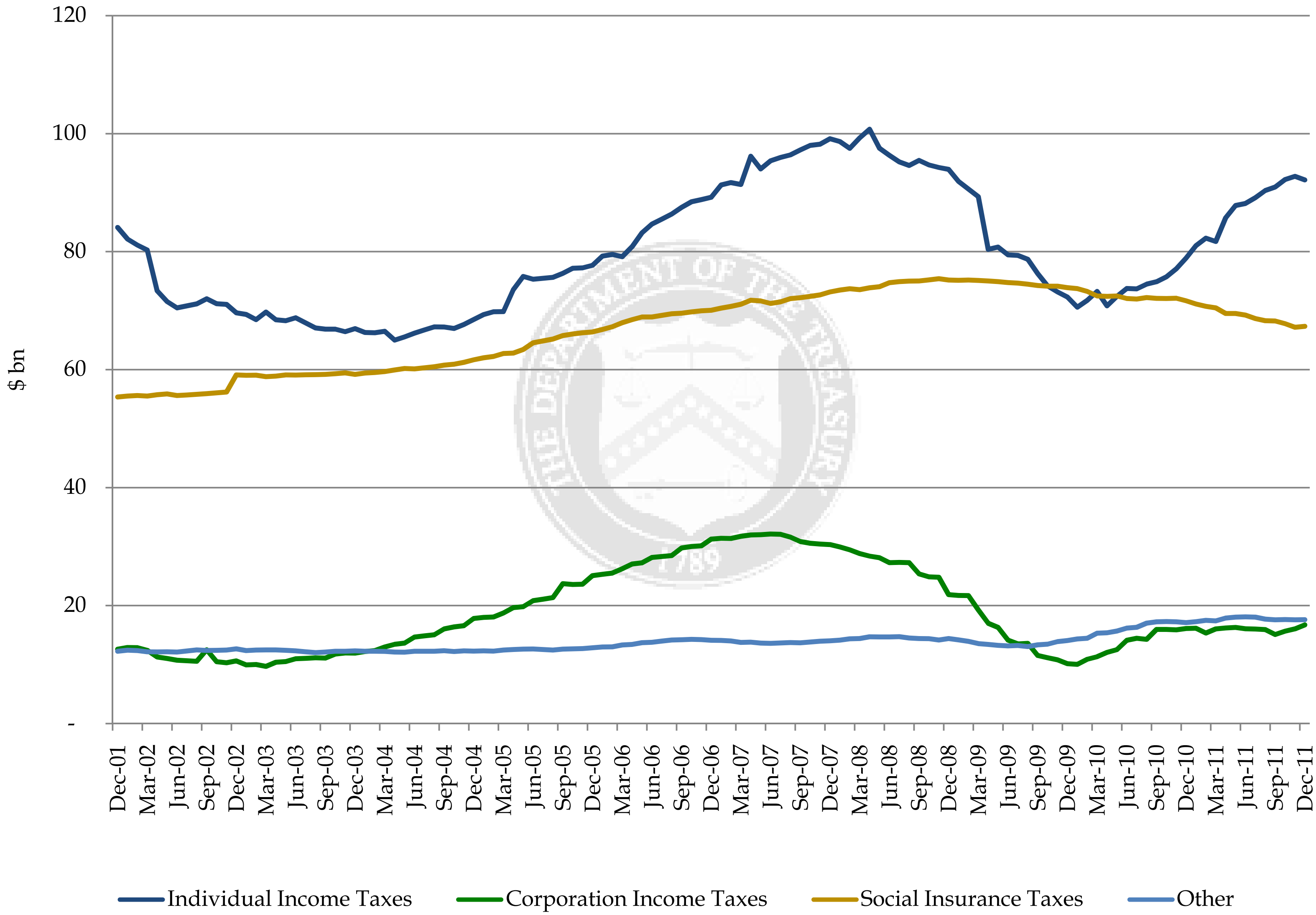
Section I: Fiscal

Quarterly Tax Receipts

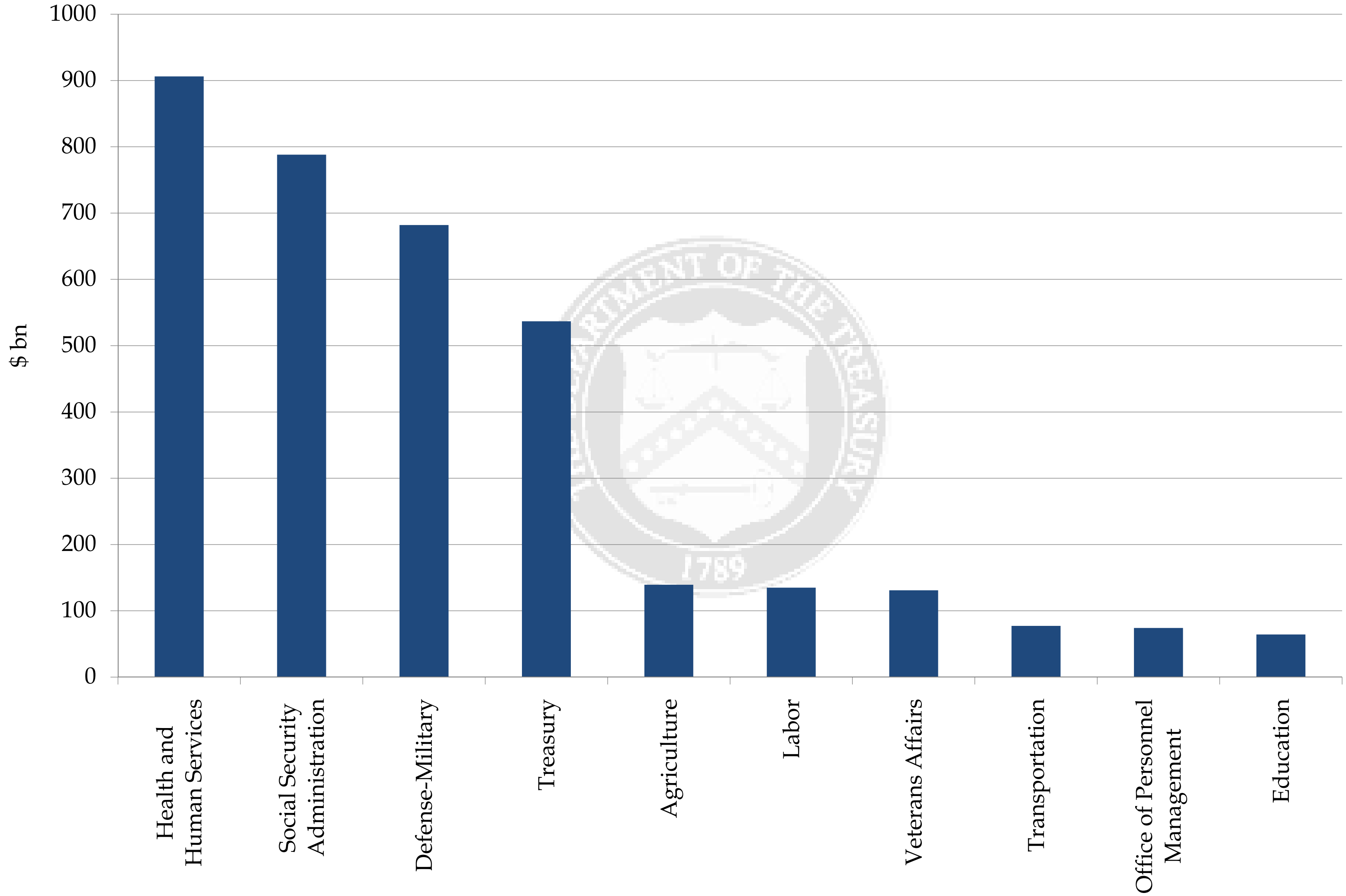


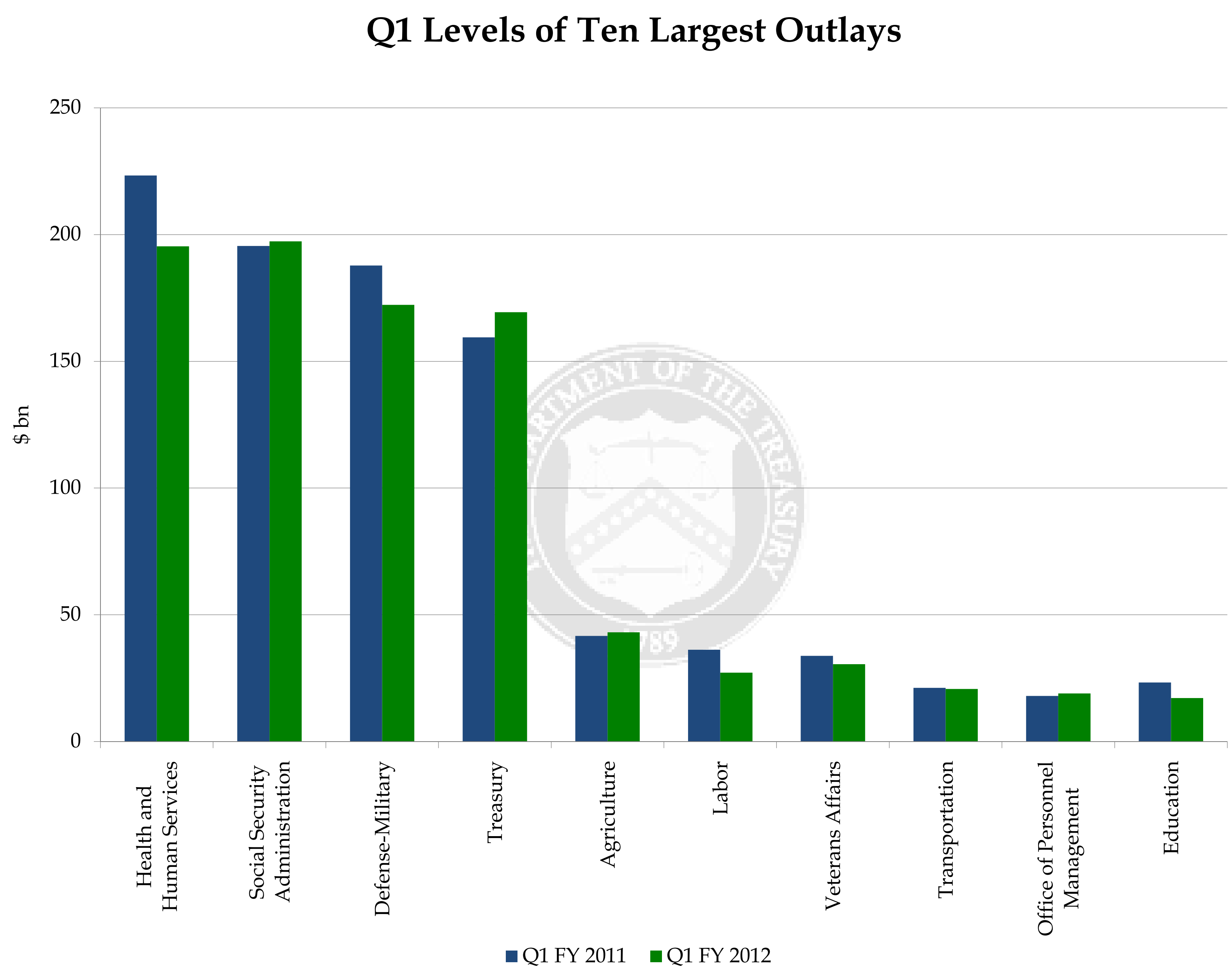
Receipt Base Levels
(12-Month Moving Average)



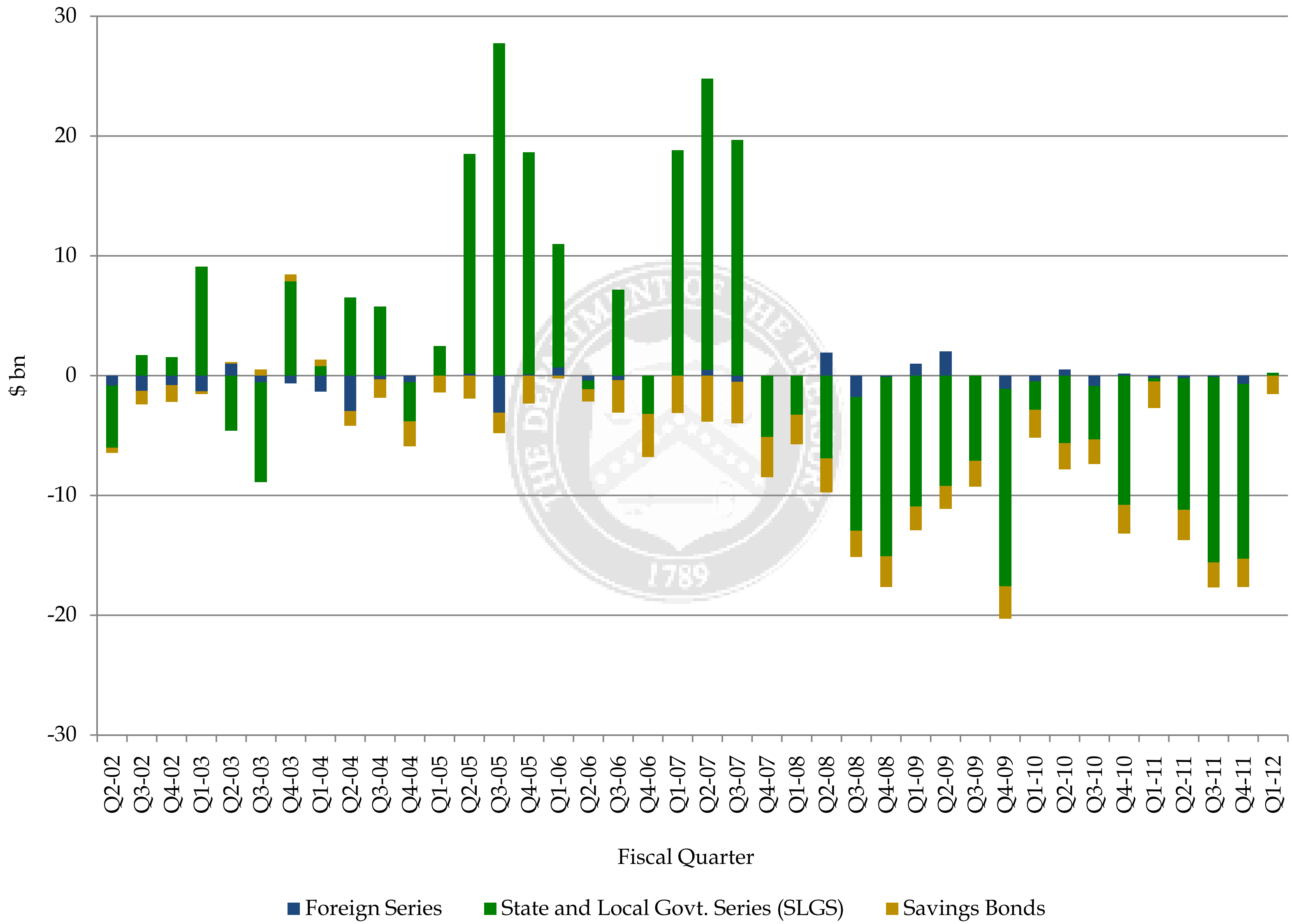
Individual Income Taxes include withheld and non-withheld. Social Insurance Taxes include FICA, SECA, RRTA, UTF Deposits, FUTA and RUIA. Other includes excise taxes, estate and gift taxes, customs duties and miscellaneous receipts.

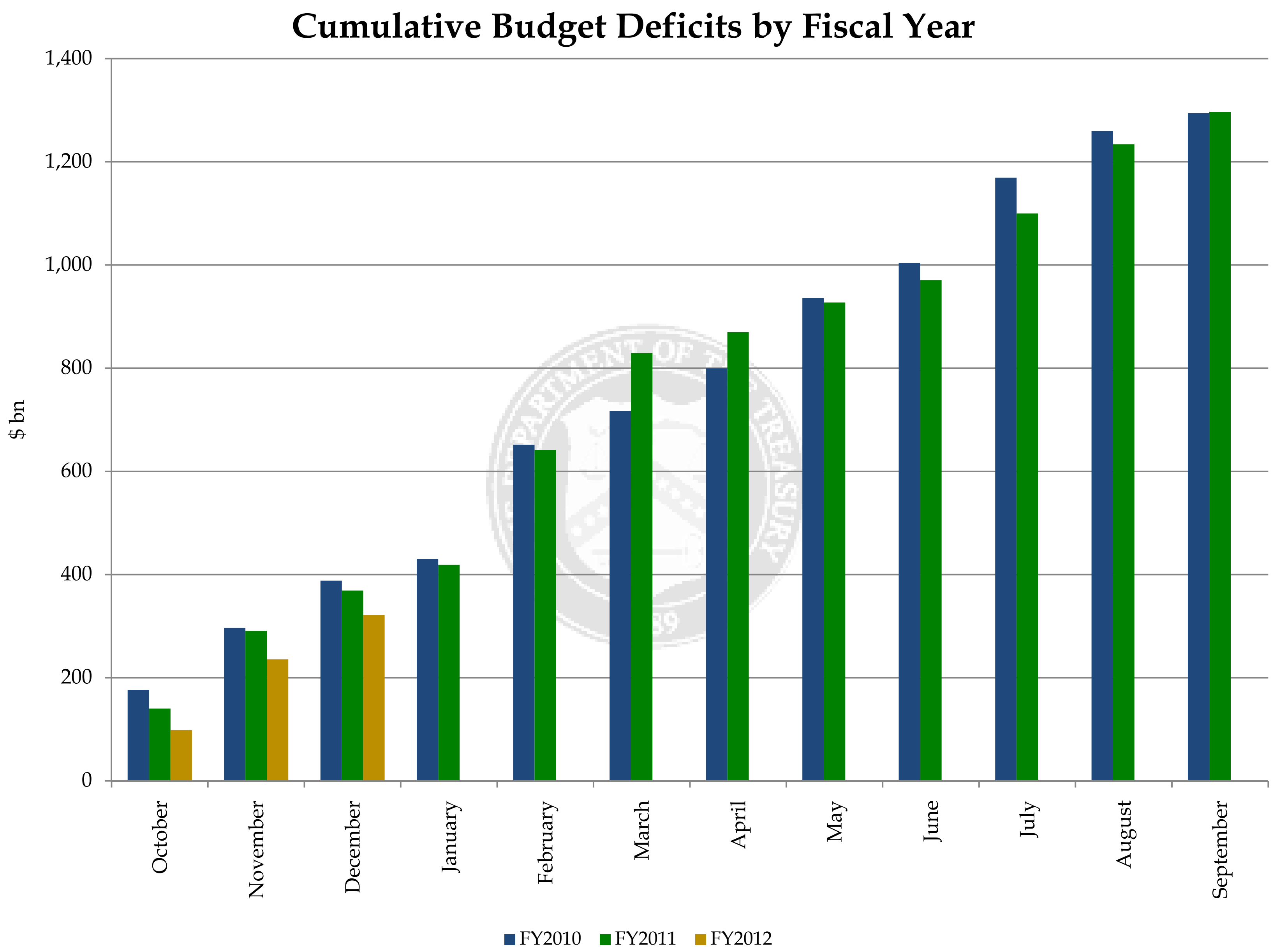
Ten Largest Outlays for FY 2011




Q1 Levels of Ten Largest Outlays
$ bn
250
200
150
100
50
0
Health and Human Services
Social Security Administration
Defense-Military
Treasury
Agriculture
Labor
Veterans Affairs
Transportation
Office of Personnel Management
Education
Q1 FY 2011
Q1 FY 2012

Treasury Net Non-Marketable Borrowing





Cumulative Budget Deficits by Fiscal Year
1,400
1,200
1,000
800
600
400
200
0
$ bn
October
November
December
January
February
March
April
May
June
July
August
September
FY2010
FY2011
FY2012

FY 2012-2014 Deficit and Borrowing Estimates

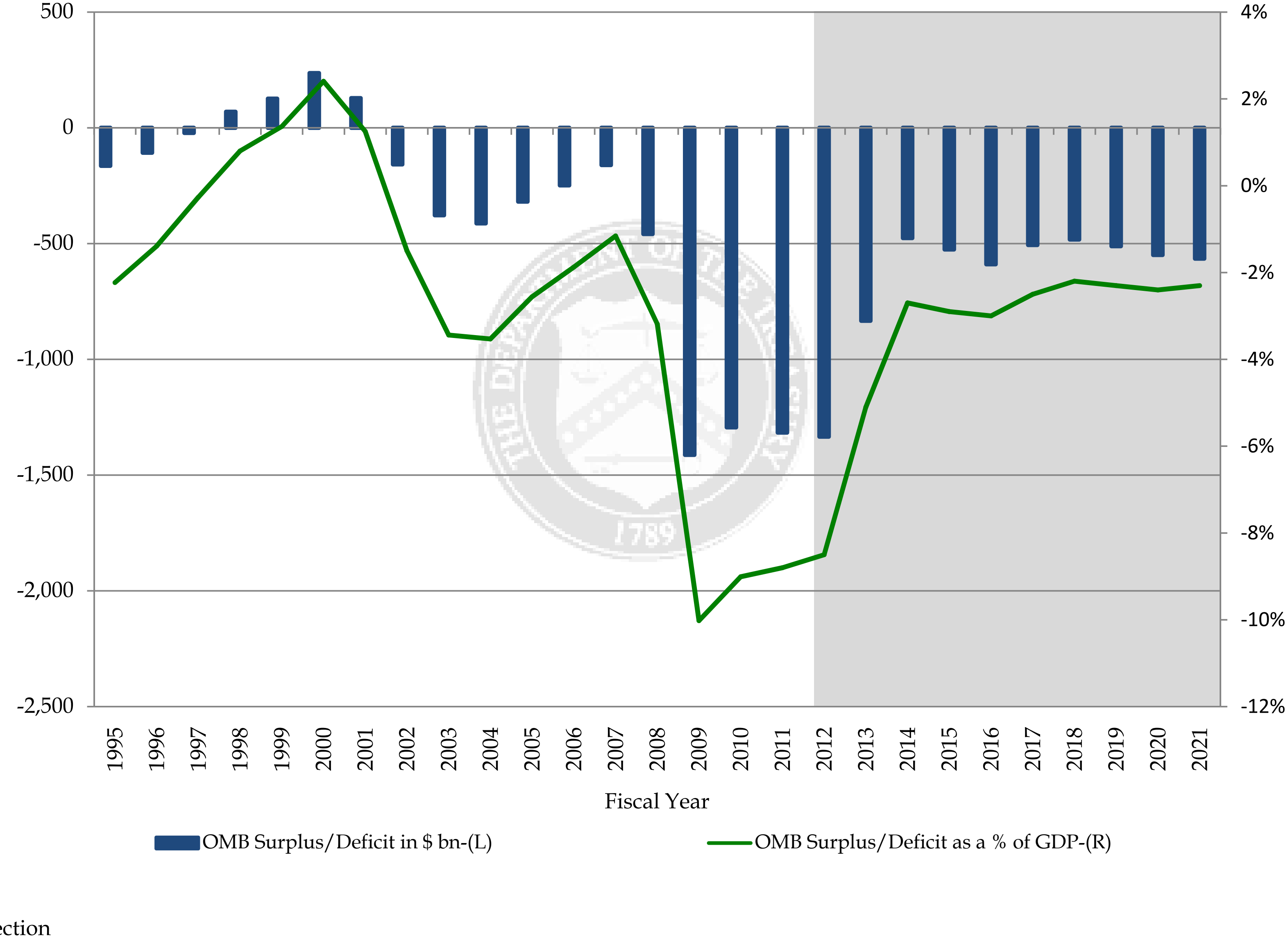
In $ Billion

	Primary Dealers*	CBO**	OMB***
Estimates as of:	Jan-12	Aug-11	Sep-11
FY 2012 Deficit Estimate	1,127	973	1,334
FY 2013 Deficit Estimate	899	623	883
FY 2014 Deficit Estimate	737	380	476
FY 2012 Deficit Range	1,000-1,275		
FY 2013 Deficit Range	580-1,120		
FY 2014 Deficit Range	85-1,037		

FY 2012 Marketable Borrowing Range	1,025-1,275		
FY 2013 Marketable Borrowing Range	635-1,120		

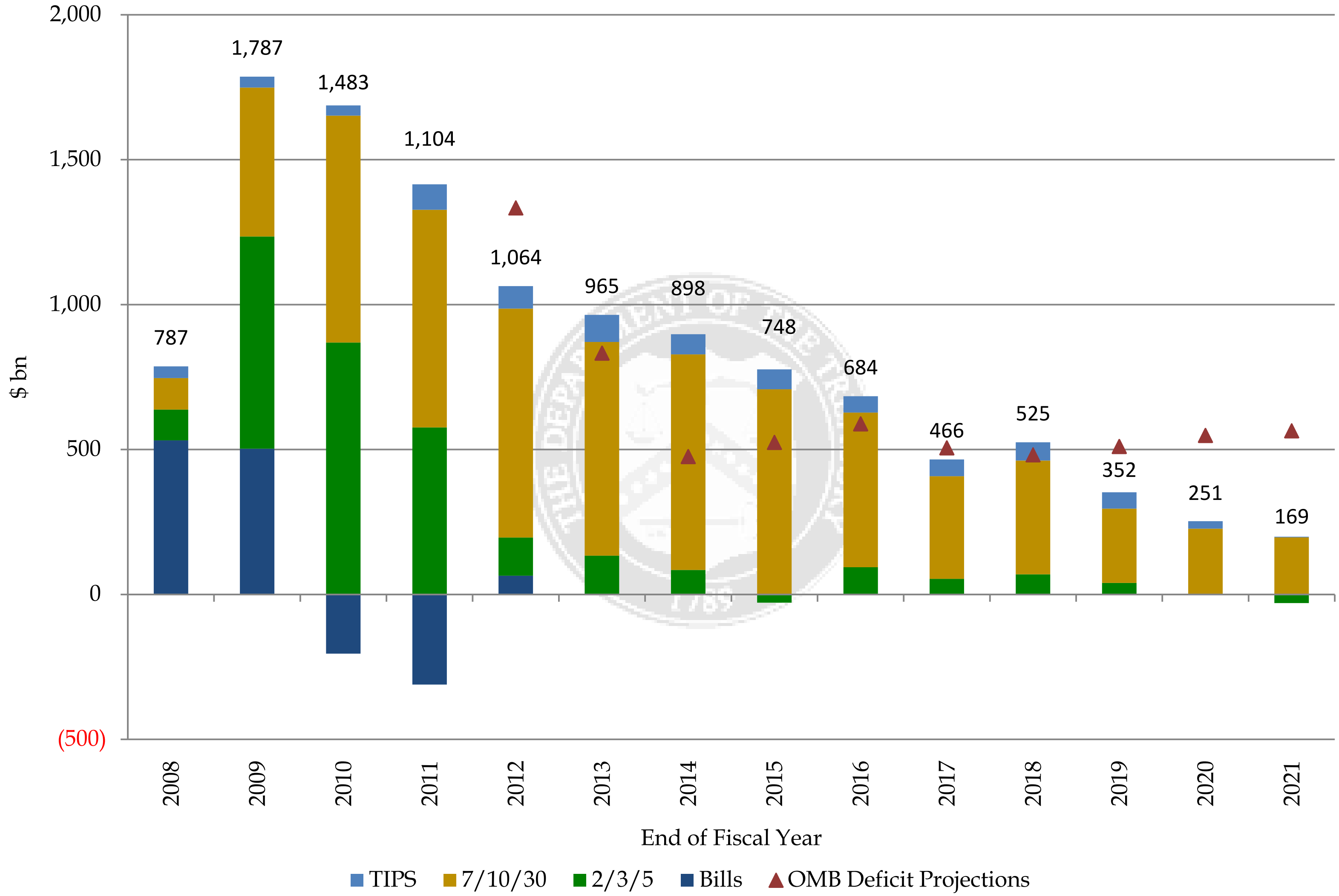
*Based on primary dealer feedback on January 23, 2012. Deficit estimates are averages.
**Current law, prior to any Joint Committee actions or sequester.
***Deficit projections from September 2011 – "Living Within Our Means and Investing in the Future".

Budget Surplus/Deficit with OMB Forecast from September 2011 – "Living Within Our Means and Investing in the Future"



Section II: Portfolio Metrics

Historical and Projected Net Marketable Borrowing Assuming All Issuance Remains Constant



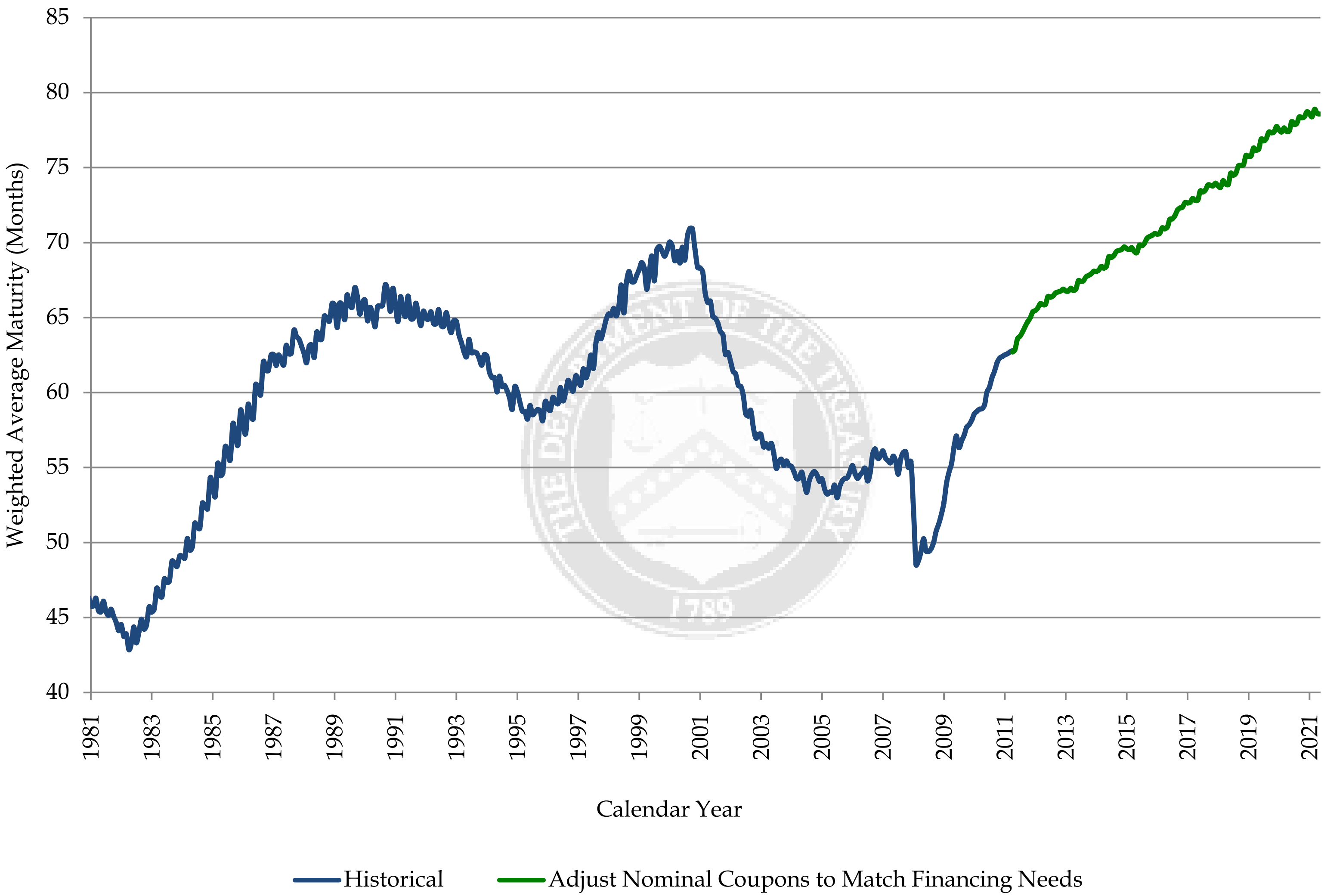
Portfolio & SOMA holdings as of 12/30/2011. Assumes current issuance sizes for Bills, Nominal Coupons and TIPS; along with SOMA reinvestment. The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. No attempt was made to match future financing needs. OMB deficit projections are from Table S-1 of September 2011, "Living Within Our Means and Investing in the Future". Data labels represent net borrowing numbers in billions.

Historical and Projected Net Marketable Borrowing Assuming All Issuance Remains Constant, $ Billion

End of Fiscal Year	Bills	2/3/5	7/10/30	TIPS	Net Borrowing	OMB Deficit Projections
2008	532	106	109	40	787	-
2009	503	732	514	38	1,787	-
2010	(204)	869	783	35	1,483	-
2011	(311)	576	751	88	1,104	-
2012	65	131	790	77	1,064	1,334
2013	0	134	737	93	965	833
2014	0	85	744	70	898	476
2015	0	(28)	708	69	748	525
2016	0	94	534	56	684	589
2017	0	54	354	58	466	506
2018	0	69	393	63	525	482
2019	0	40	256	57	352	511
2020	0	(2)	227	26	251	549
2021	0	(30)	197	2	169	565

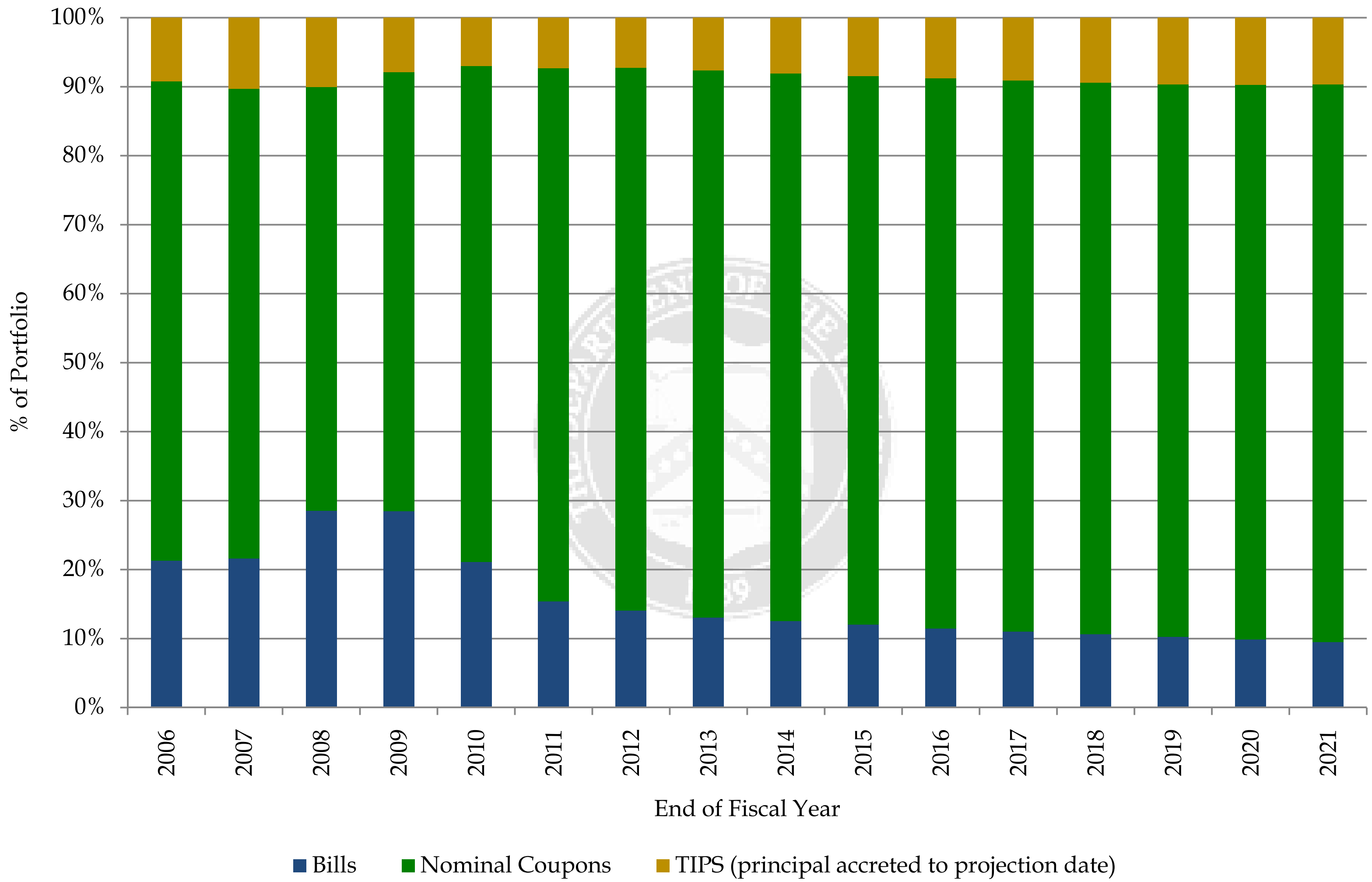
Portfolio & SOMA holdings as of 12/30/2011. Assumes current issuance sizes for Bills, Nominal Coupons and TIPS; along with SOMA reinvestment. The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. No attempt was made to match future financing needs. OMB deficit projections are from Table S-1 of September 2011, "Living Within Our Means and Investing in the Future". Data labels represent net borrowing numbers in billions.

Weighted Average Maturity of Marketable Debt



Portfolio & SOMA holdings as of 12/30/2011. To match OMB's projected financing needs for the next 10 years, nominal coupon securities (2-, 3-, 5-, 7-, 10-, and 30-year) were adjusted by the same percentage. OMB deficit projections are from Table S-1 of September 2011, "Living Within Our Means and Investing in the Future". The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. 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.

Recent and Future Portfolio Composition by Issuance Type, Percent



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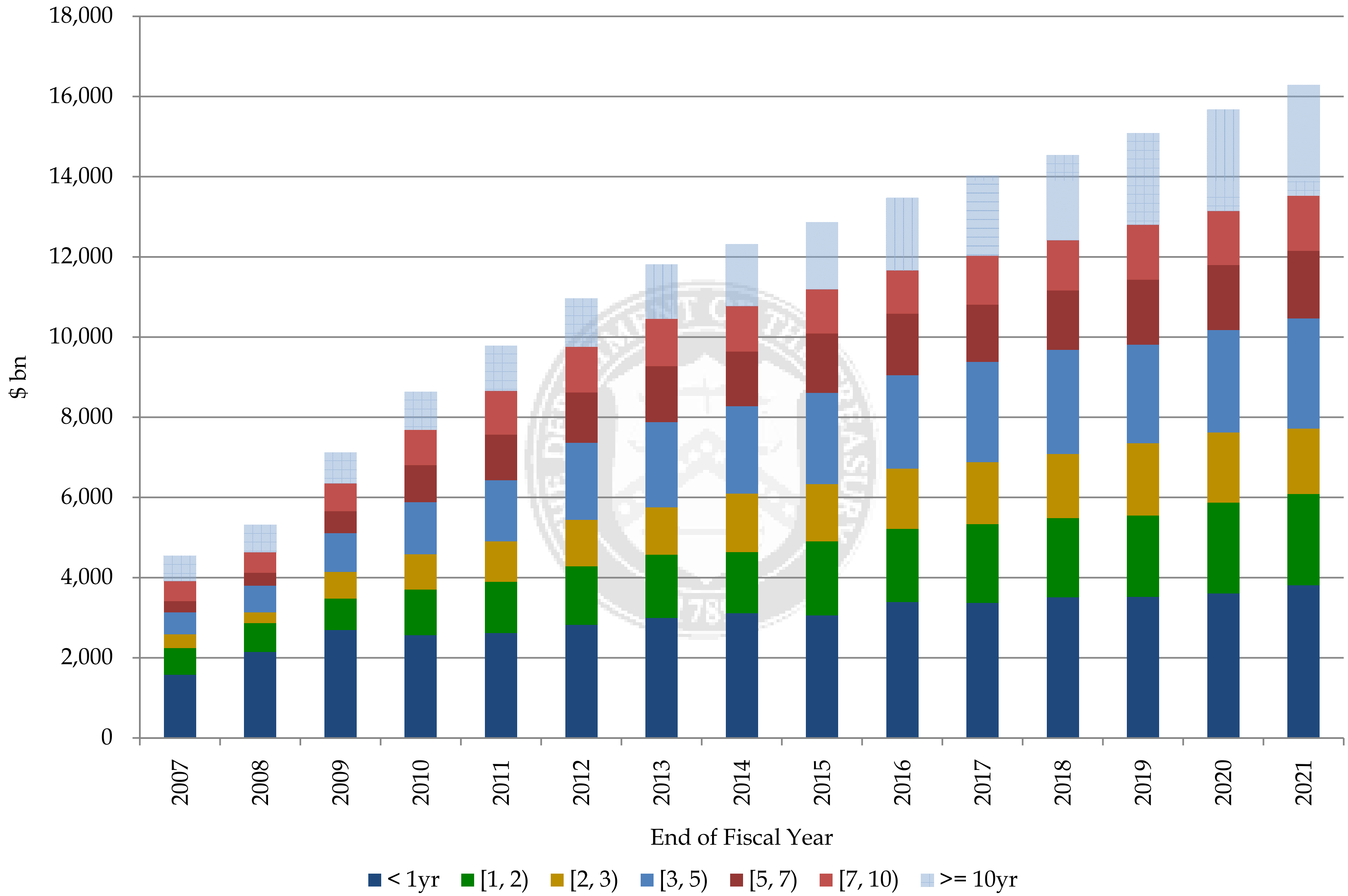
Recent and Future Portfolio Composition by Issuance Type, Percent

End of Fiscal Year	Bills	Nominal Coupons	TIPS (principal accreted to projection date)
2006	21.3%	69.5%	9.2%
2007	21.6%	68.1%	10.3%
2008	28.5%	61.4%	10.0%
2009	28.5%	63.6%	7.9%
2010	21.1%	71.9%	7.0%
2011	15.4%	77.3%	7.3%
2012	14.1%	78.7%	7.3%
2013	13.1%	79.3%	7.7%
2014	12.5%	79.4%	8.1%
2015	12.0%	79.5%	8.5%
2016	11.4%	79.8%	8.8%
2017	11.0%	79.9%	9.1%
2018	10.6%	80.0%	9.4%
2019	10.2%	80.1%	9.7%
2020	9.8%	80.4%	9.8%
2021	9.5%	80.9%	9.7%

Portfolio & SOMA holdings as of 12/30/2011. To match OMB's projected financing needs for the next 10 years, nominal coupon securities (2-, 3-, 5-, 7-, 10-, and 30-year) were adjusted by the same percentage. OMB deficit projections are from Table S-1 of September 2011, "Living Within Our Means and Investing in the Future". The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. 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.

Recent and Future Maturity Profile, $ Billion



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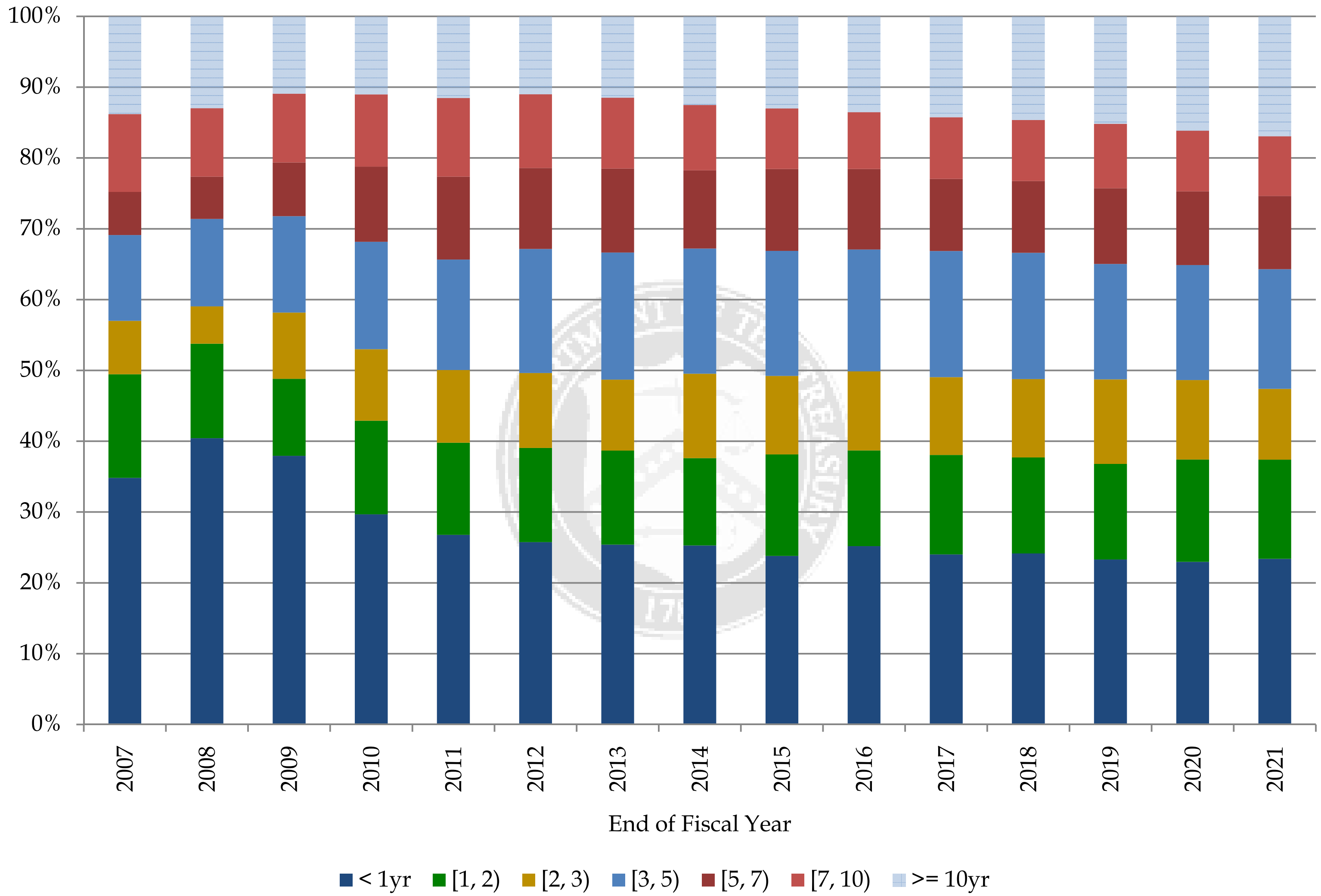
Recent and Future Maturity Profile, $ Billion

End of Fiscal Year	< 1yr	[1, 2)	[2, 3)	[3, 5)	[5, 7)	[7, 10)	>= 10yr
2007	1,582	664	342	551	276	499	627
2008	2,151	710	280	657	318	515	690
2009	2,702	775	666	970	540	691	779
2010	2,563	1,143	872	1,310	918	881	952
2011	2,621	1,273	1,004	1,527	1,146	1,086	1,129
2012	2,824	1,458	1,160	1,923	1,255	1,139	1,208
2013	3,002	1,570	1,182	2,123	1,400	1,181	1,359
2014	3,114	1,518	1,467	2,177	1,361	1,133	1,543
2015	3,063	1,843	1,426	2,273	1,489	1,098	1,674
2016	3,395	1,825	1,505	2,322	1,532	1,081	1,826
2017	3,370	1,967	1,541	2,500	1,427	1,221	1,999
2018	3,512	1,971	1,609	2,594	1,474	1,252	2,131
2019	3,516	2,036	1,803	2,458	1,615	1,368	2,293
2020	3,602	2,265	1,760	2,546	1,631	1,344	2,530
2021	3,811	2,281	1,627	2,751	1,686	1,370	2,760

Portfolio & SOMA holdings as of 12/30/2011. To match OMB's projected financing needs for the next 10 years, nominal coupon securities (2-, 3-, 5-, 7-, 10-, and 30-year) were adjusted by the same percentage. OMB deficit projections are from Table S-1 of September 2011, "Living Within Our Means and Investing in the Future". The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. 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.

Recent and Future Maturity Profile, Percent



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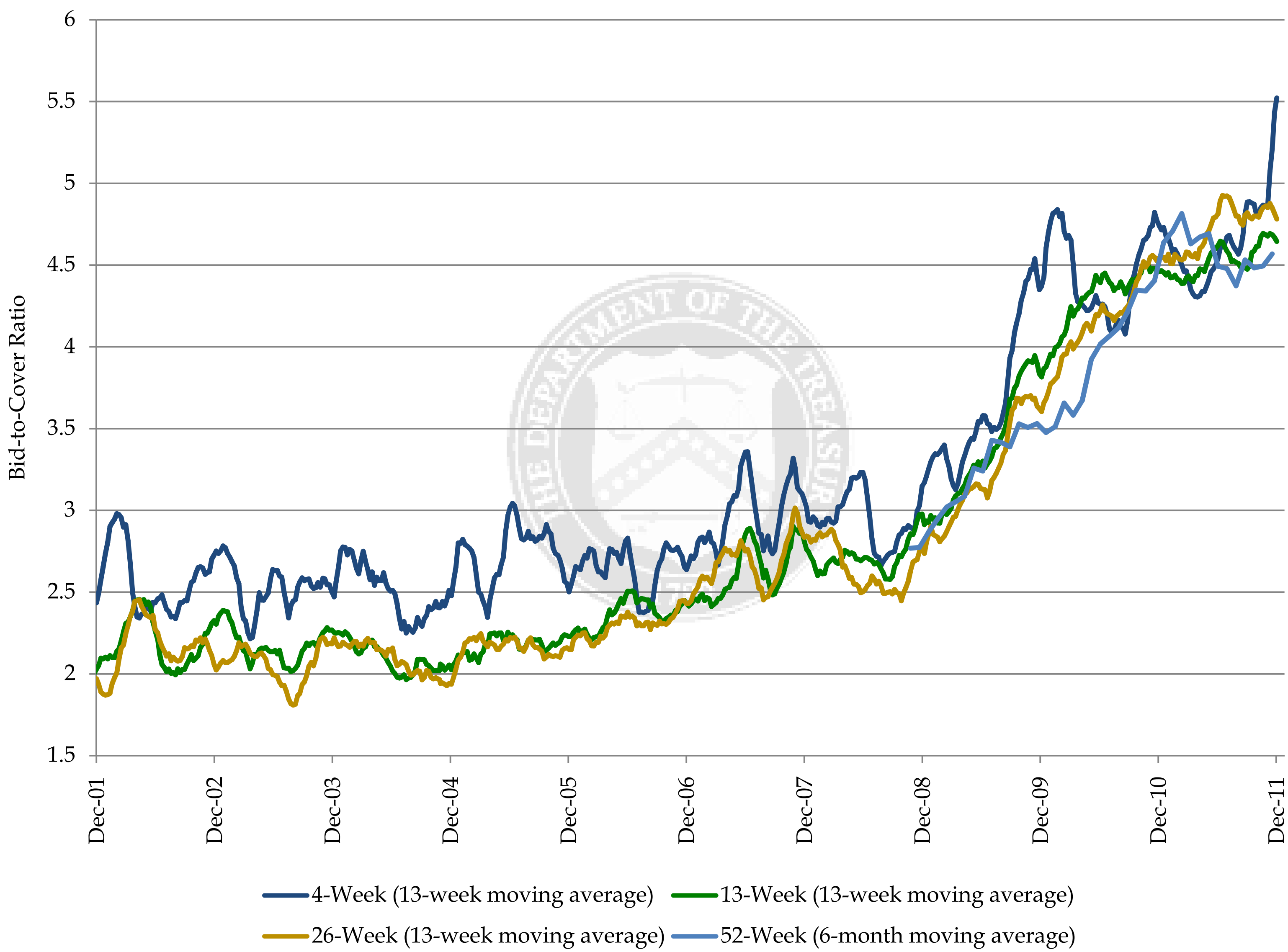
Recent and Future Maturity Profile, Percent

End of Fiscal Year	< 1yr	[1, 2)	[2, 3)	[3, 5)	[5, 7)	[7, 10)	>= 10yr
2007	34.8%	14.6%	7.5%	12.1%	6.1%	11.0%	13.8%
2008	40.4%	13.3%	5.3%	12.3%	6.0%	9.7%	13.0%
2009	37.9%	10.9%	9.3%	13.6%	7.6%	9.7%	10.9%
2010	29.7%	13.2%	10.1%	15.2%	10.6%	10.2%	11.0%
2011	26.8%	13.0%	10.3%	15.6%	11.7%	11.1%	11.5%
2012	25.8%	13.3%	10.6%	17.5%	11.4%	10.4%	11.0%
2013	25.4%	13.3%	10.0%	18.0%	11.8%	10.0%	11.5%
2014	25.3%	12.3%	11.9%	17.7%	11.1%	9.2%	12.5%
2015	23.8%	14.3%	11.1%	17.7%	11.6%	8.5%	13.0%
2016	25.2%	13.5%	11.2%	17.2%	11.4%	8.0%	13.5%
2017	24.0%	14.0%	11.0%	17.8%	10.2%	8.7%	14.3%
2018	24.1%	13.6%	11.1%	17.8%	10.1%	8.6%	14.7%
2019	23.3%	13.5%	12.0%	16.3%	10.7%	9.1%	15.2%
2020	23.0%	14.4%	11.2%	16.2%	10.4%	8.6%	16.1%
2021	23.4%	14.0%	10.0%	16.9%	10.4%	8.4%	16.9%

Portfolio & SOMA holdings as of 12/30/2011. To match OMB's projected financing needs for the next 10 years, nominal coupon securities (2-, 3-, 5-, 7-, 10-, and 30-year) were adjusted by the same percentage. OMB deficit projections are from Table S-1 of September 2011, "Living Within Our Means and Investing in the Future". The principal on the TIPS securities were accreted to each projection date based on market ZCIS levels. 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.

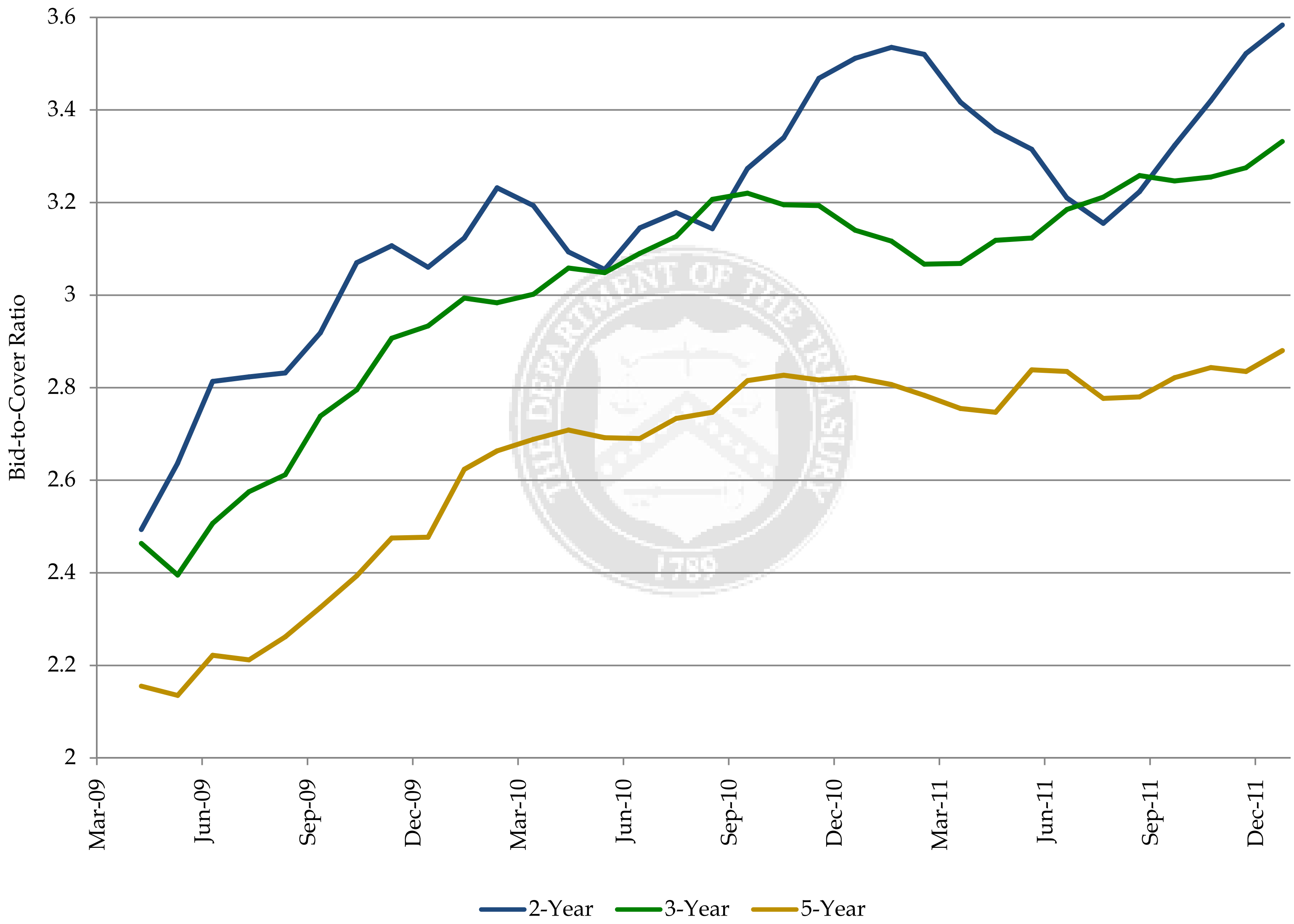
Section III: Demand

Bid-to-Cover Ratios for Treasury Bills



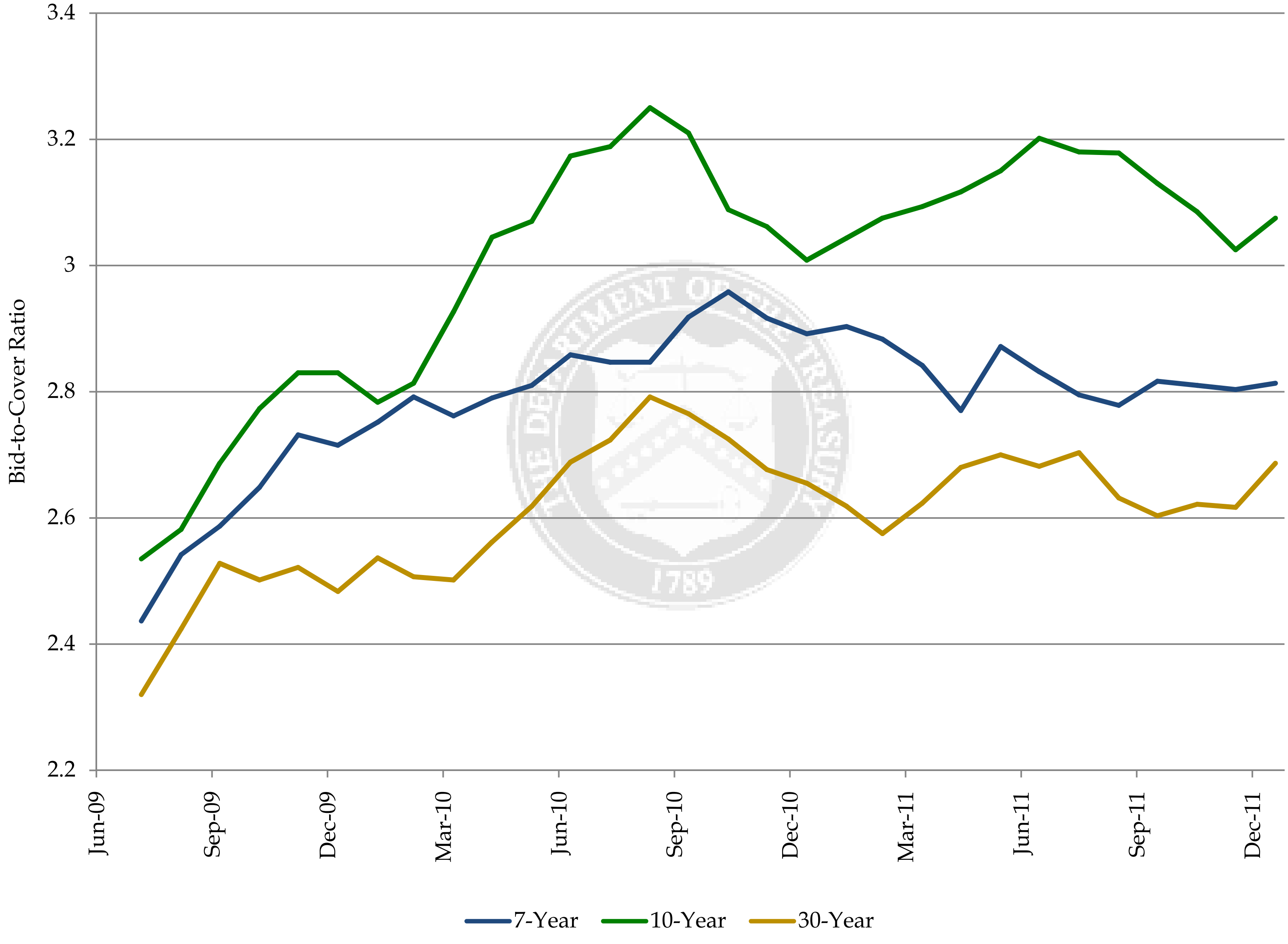
2-, 3-, and 5-Year Bid-to-Cover Ratios for Nominal Securities

(6-Month Moving Average)

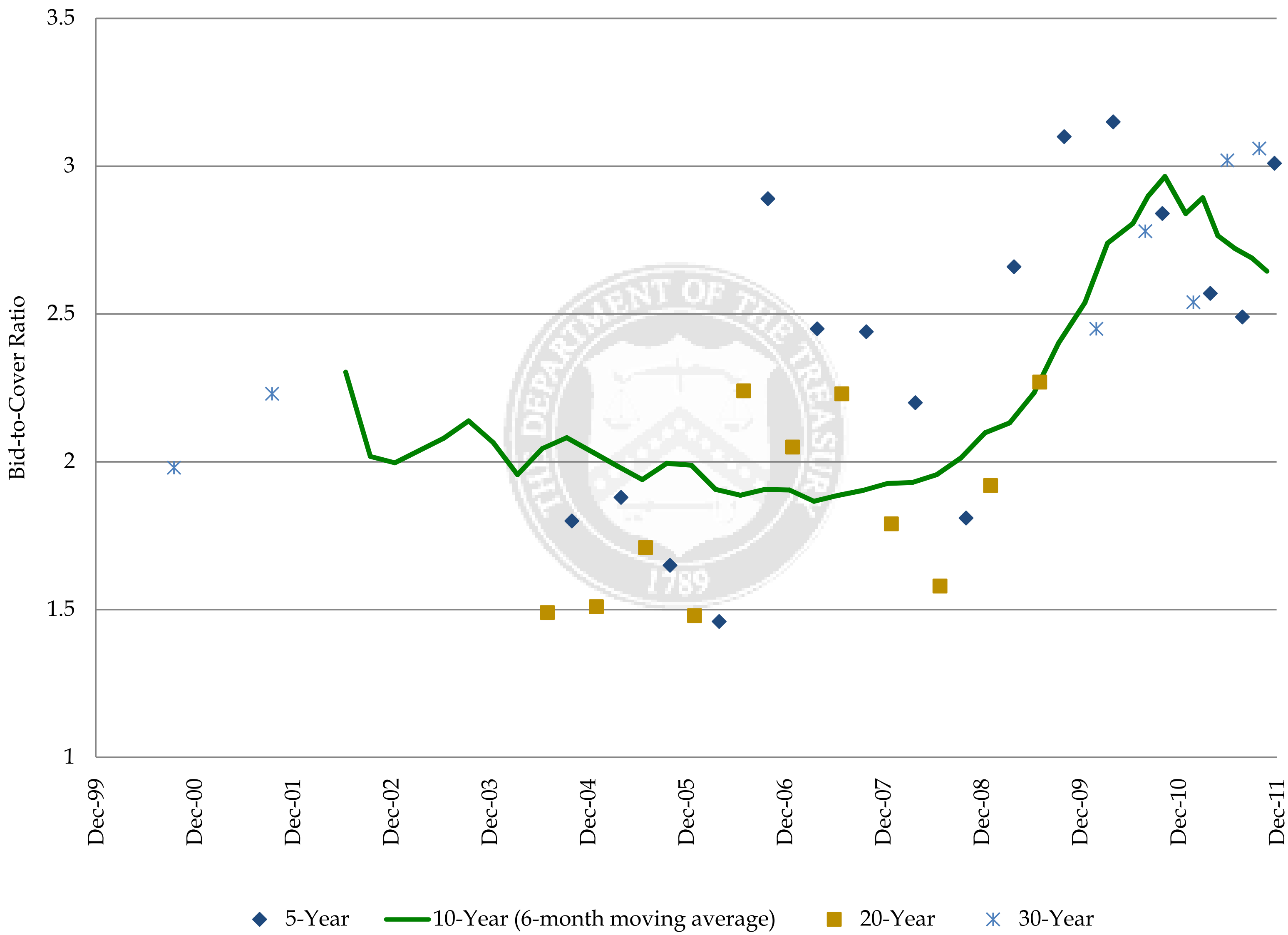


Bid-to-Cover Ratios for 7-, 10-, and 30-Year Nominal Securities

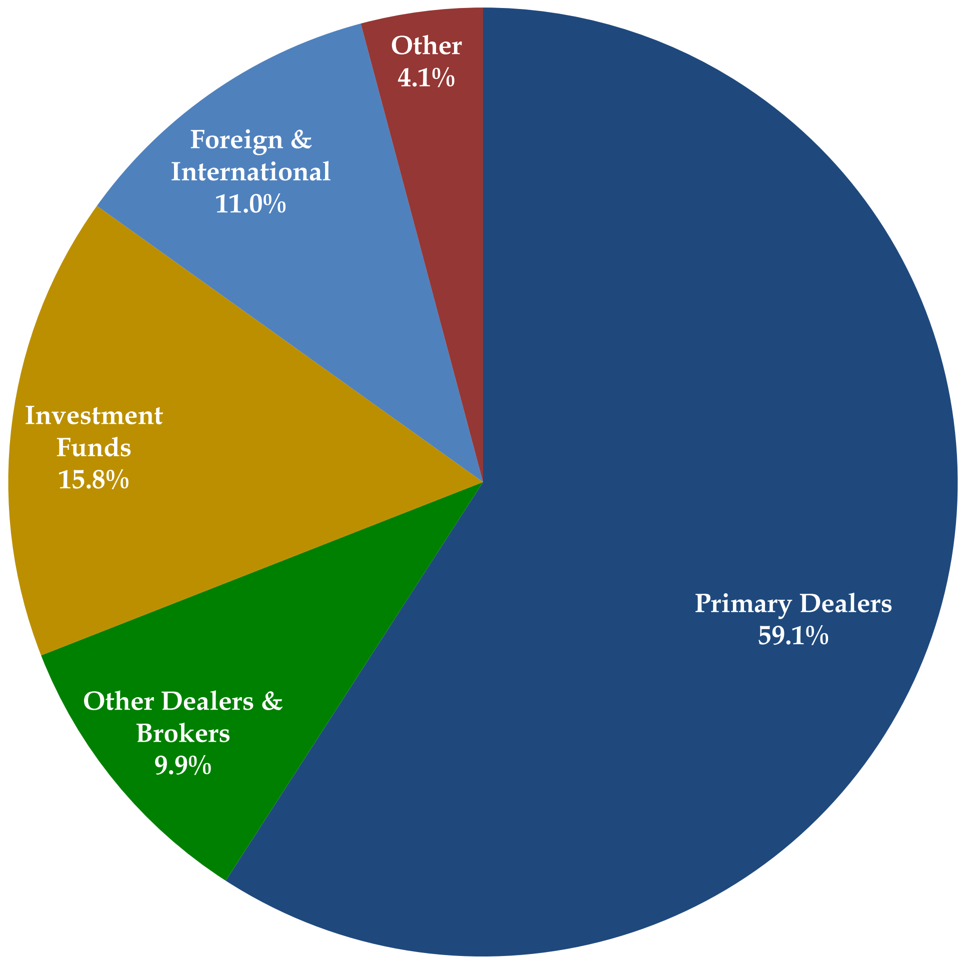
(6-Month Moving Average)



Bid-to-Cover Ratios for TIPS

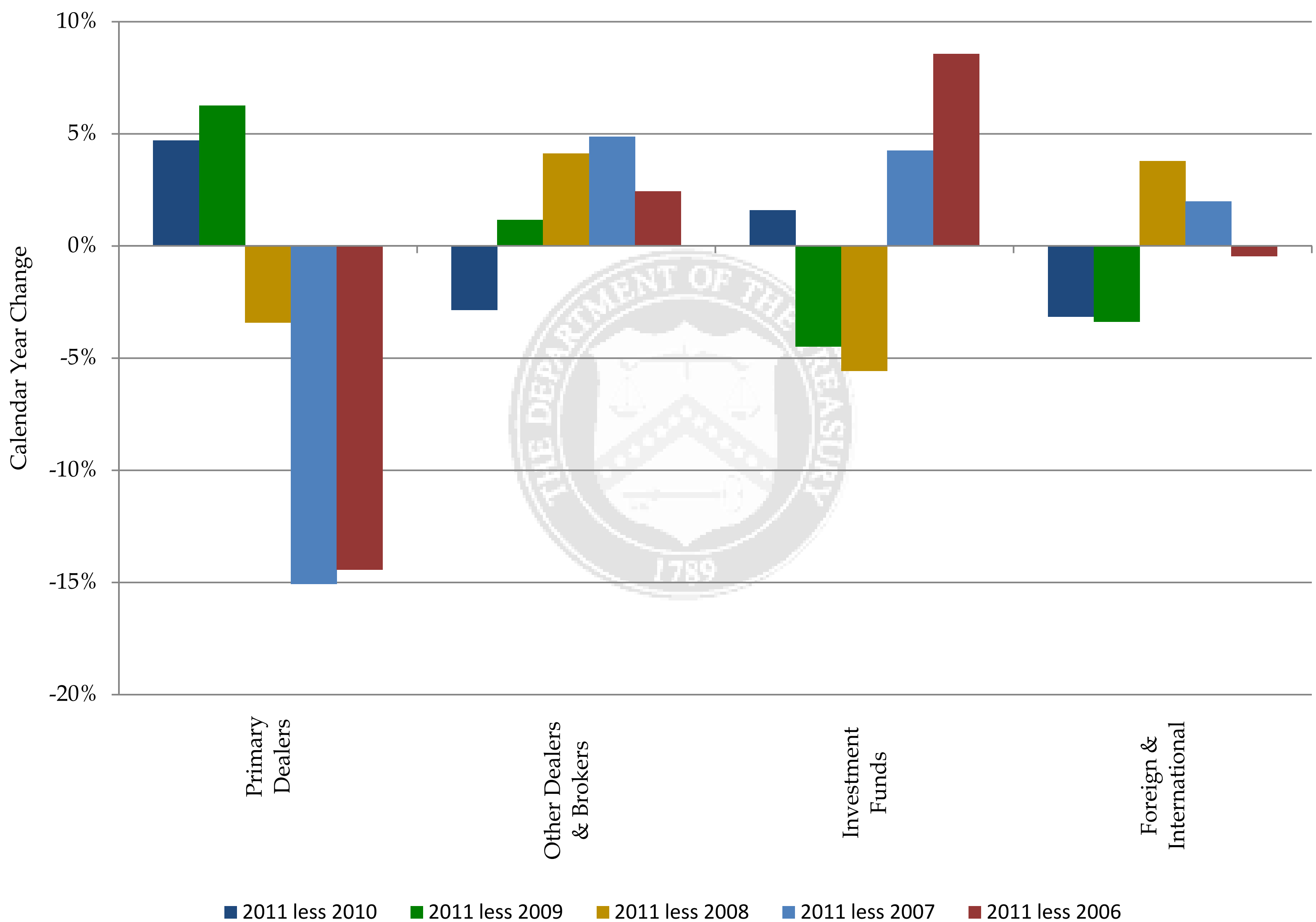


Investor Class Auction Awards: Bills
Calendar Year 2011



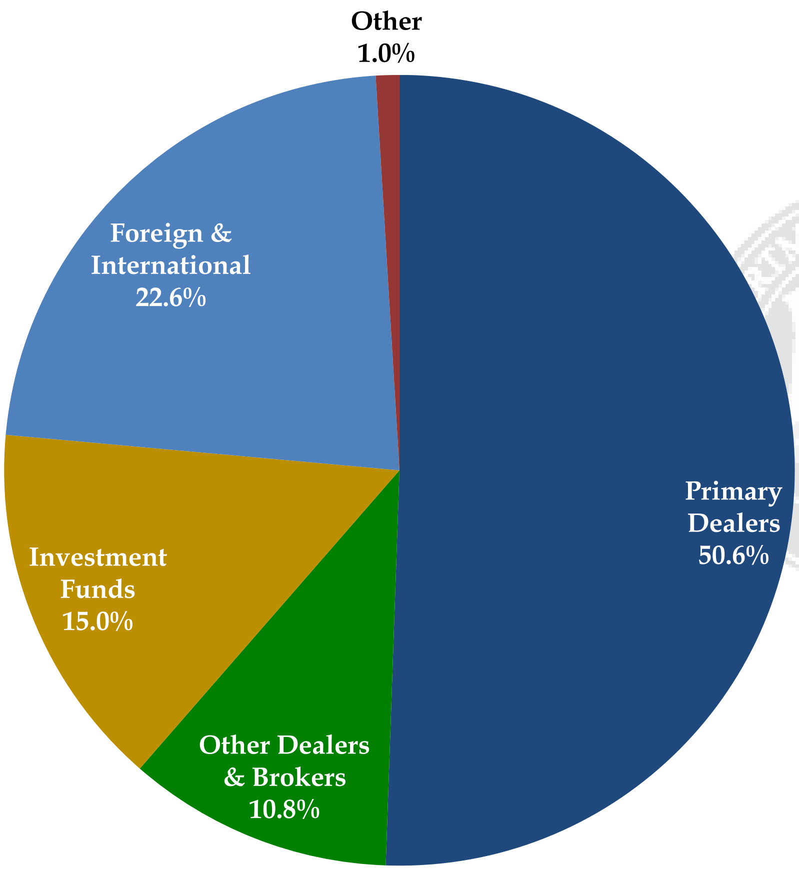
Excludes SOMA add-ons. "Other" includes categories that are each less than 2%, which include Depository Institutions, Individuals, Pension and Insurance.

Calendar Year Change in Bill Auction Awards by Investor Class

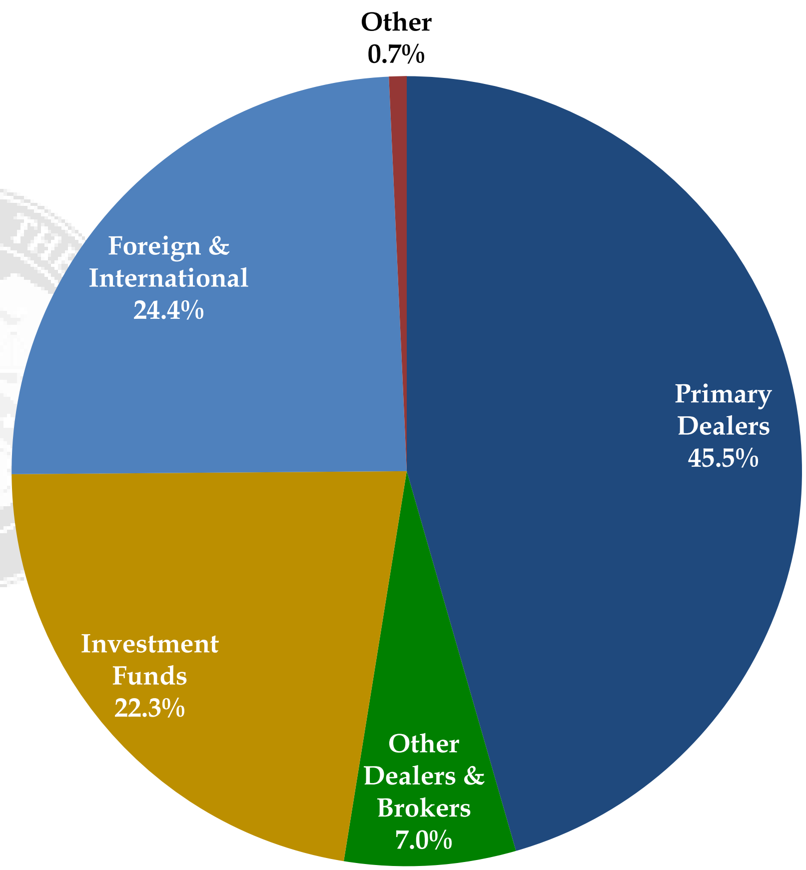


Excludes SOMA add-ons.

Investor Class Auction Awards: 2-, 3-, and 5-Year Nominal Securities Calendar Year 2011

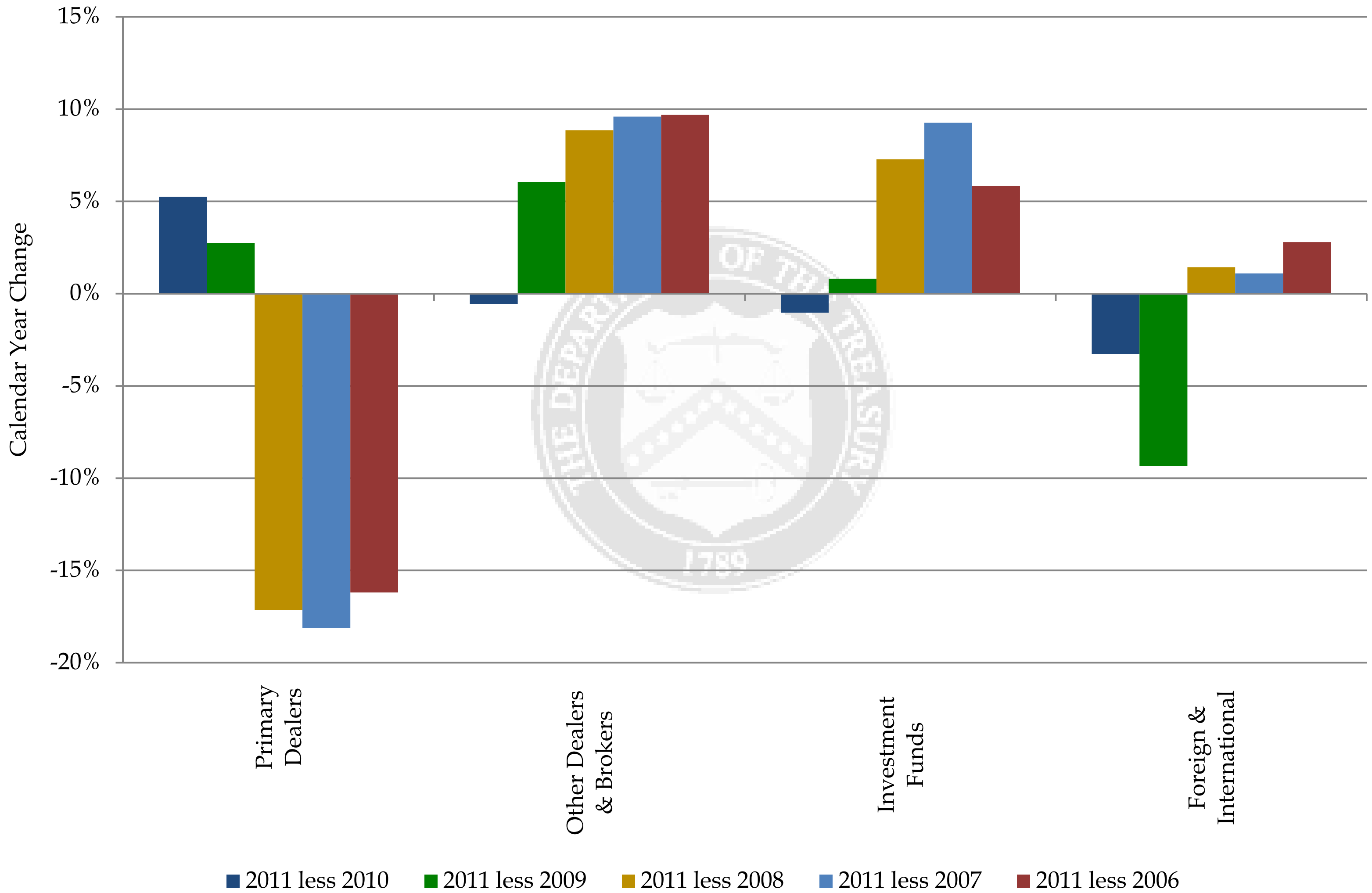


Investor Class Auction Awards: 7-, 10-, and 30-Year Nominal Securities Calendar Year 2011



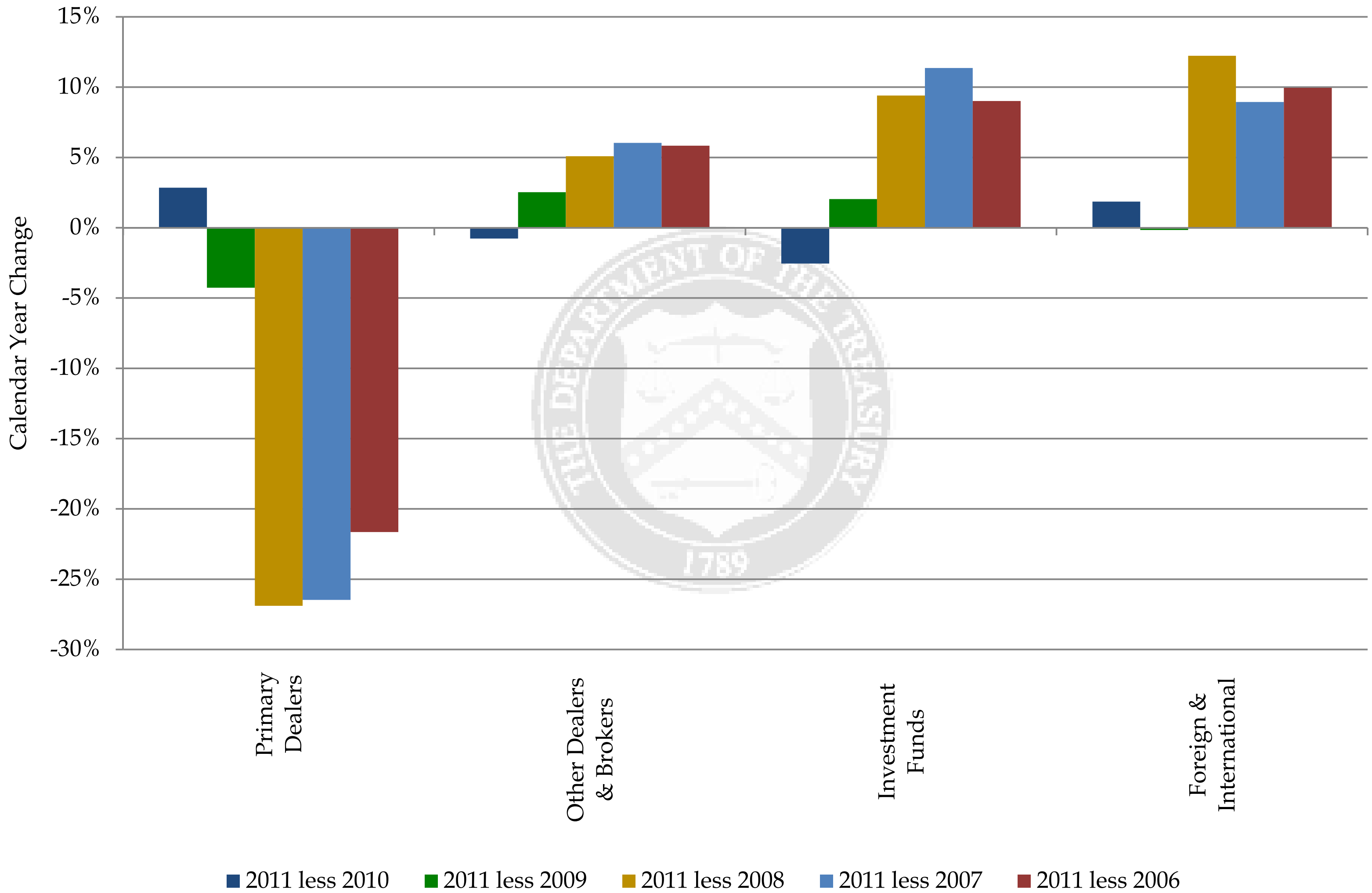
Excludes SOMA add-ons. “Other” includes categories that are each less than 2%, which include Depository Institutions, Individuals, Pension and Insurance.

Calendar Year Change in 2-, 3-, 5-Year Nominal Securities Auction Awards by Investor Class



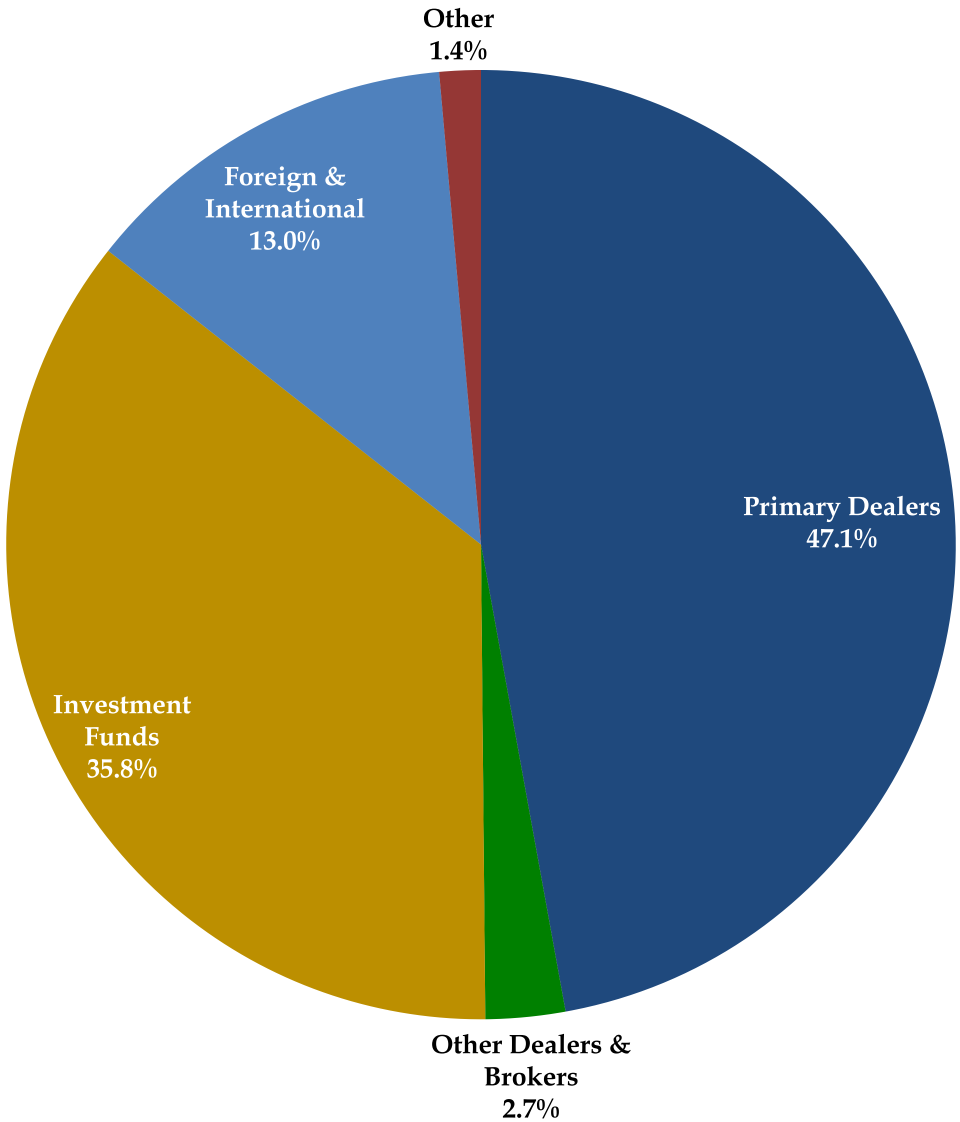
Excludes SOMA add-ons.

Calendar Year Change in 7-, 10-, and 30-Year Nominal Securities Auction Awards by Investor Class



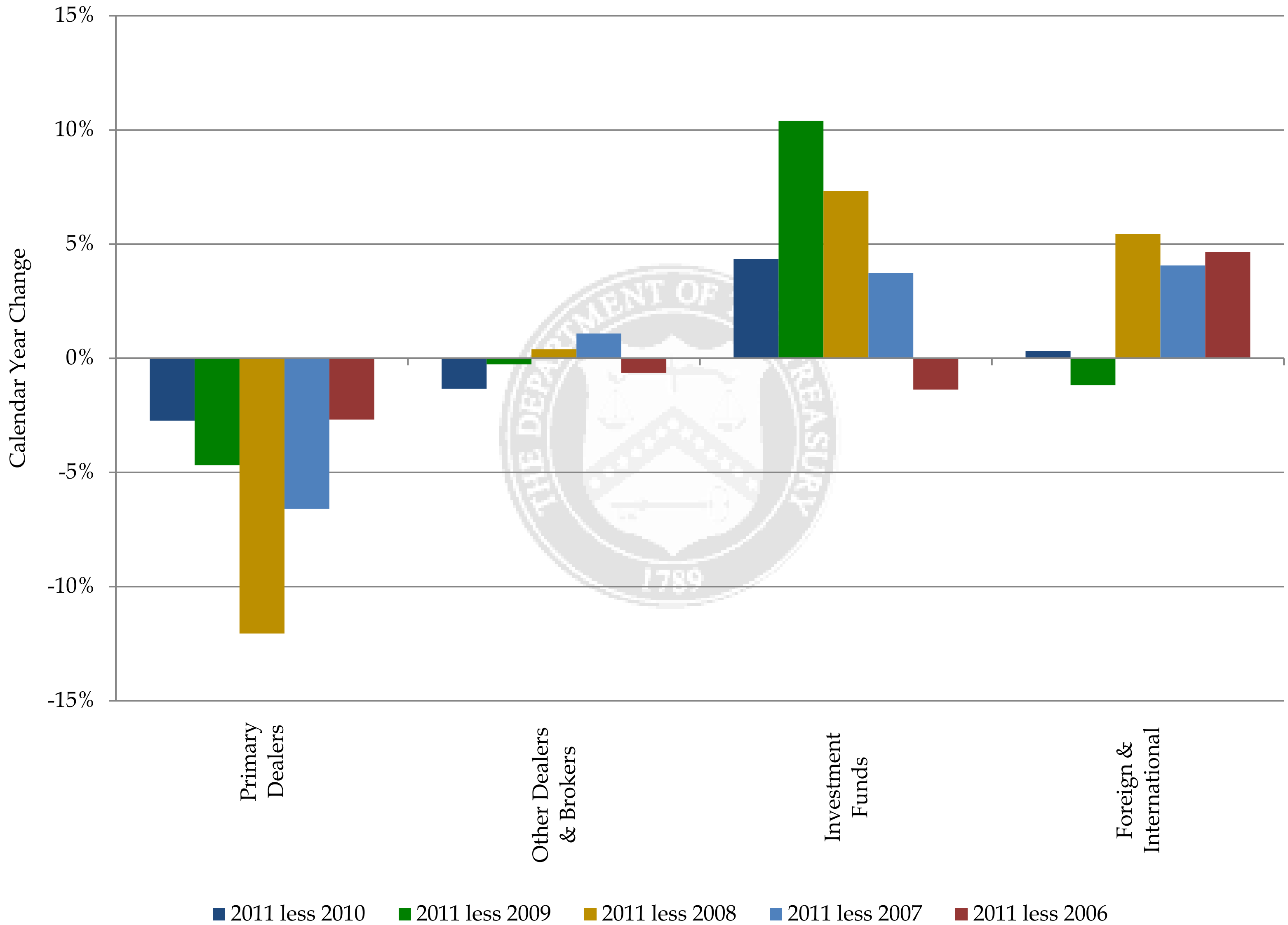
Excludes SOMA add-ons.

Investor Class Auction Awards: TIPS
Calendar Year 2011



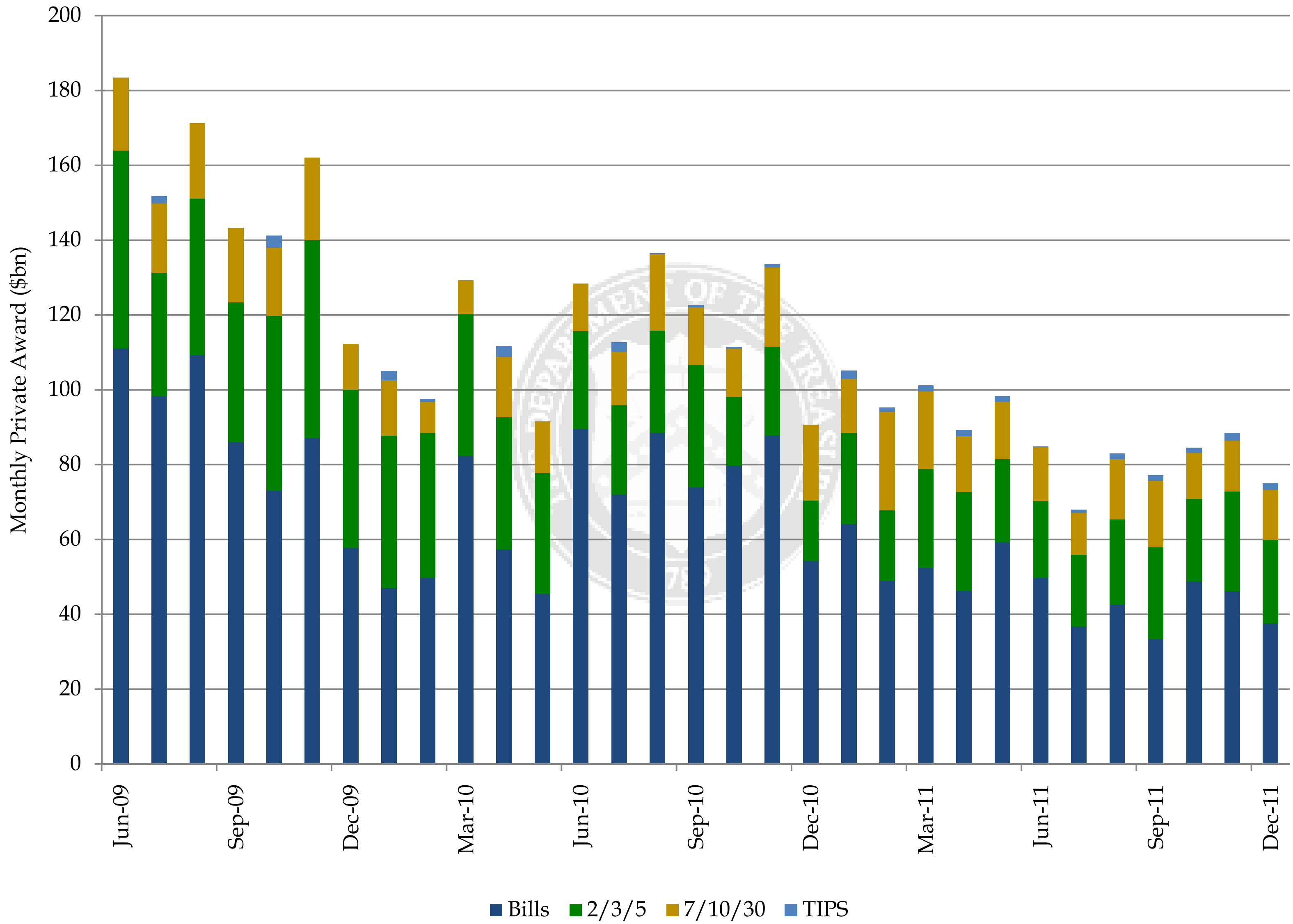
Excludes SOMA add-ons. “Other” includes categories that are each less than 2%, which include Depository Institutions, Individuals, Pension and Insurance.

Calendar Year Change in TIPS Auction Awards by Investor Class



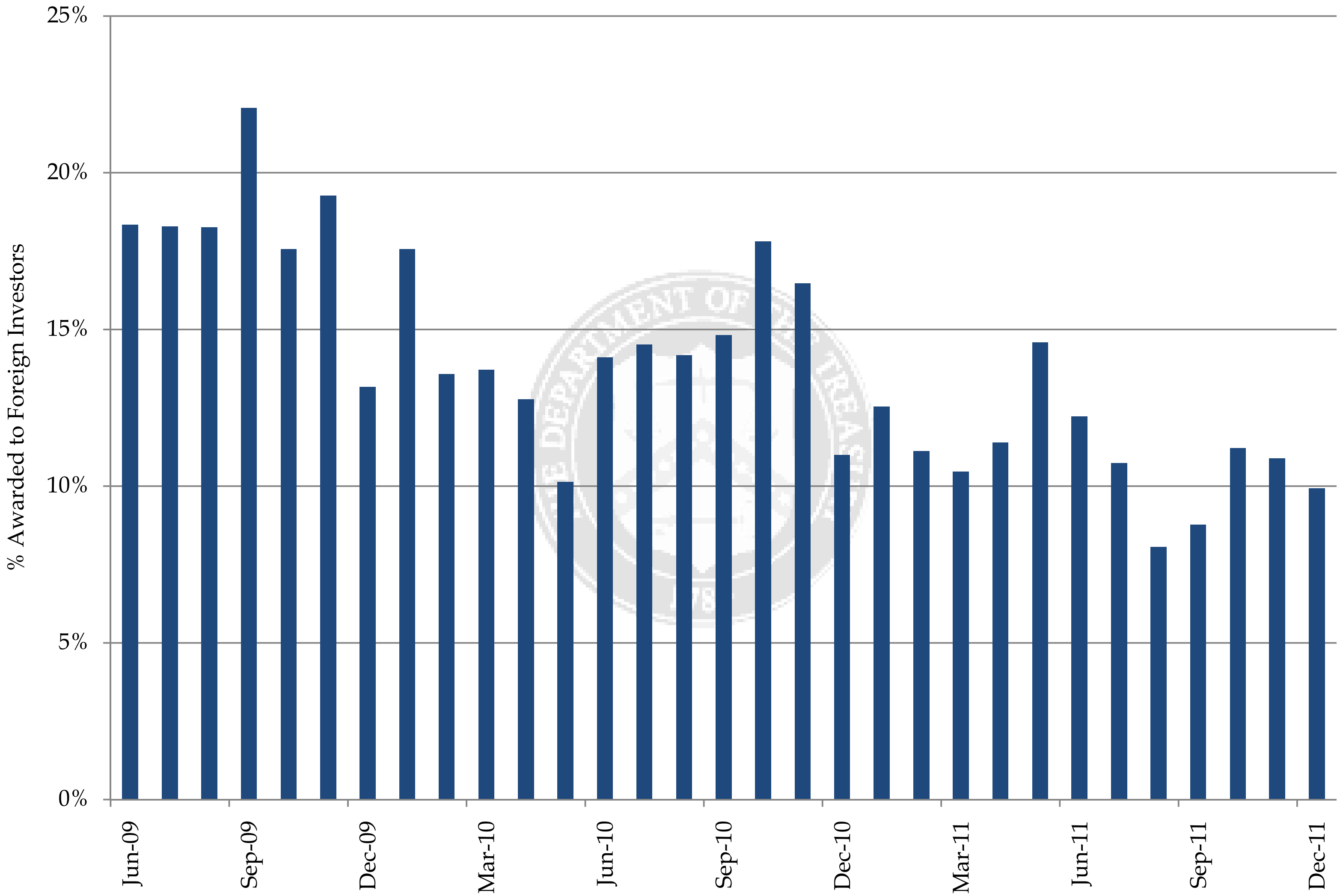
Excludes SOMA add-ons.

Foreign Awards of Treasuries at Auction, $ Billion



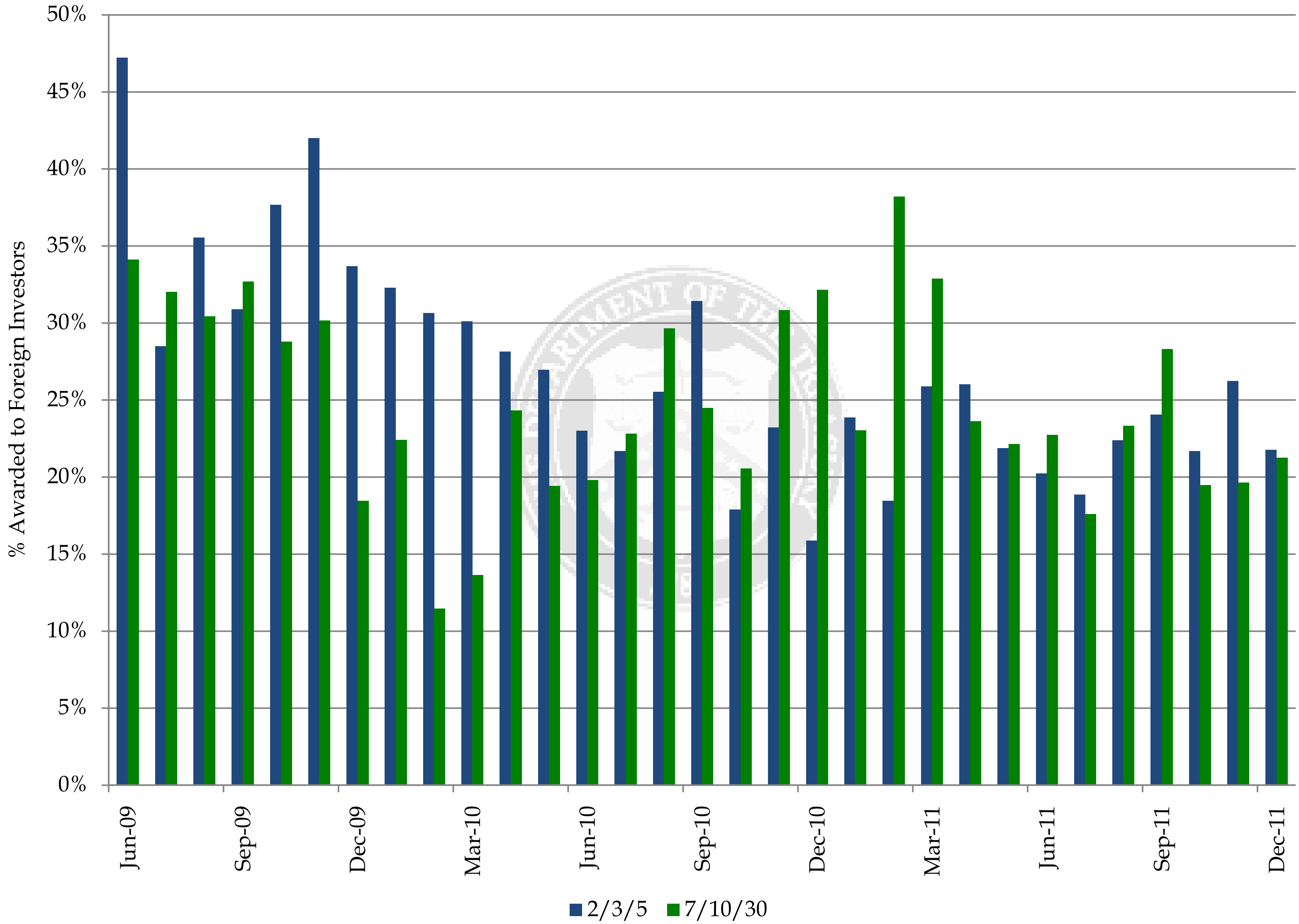
Foreign includes both private sector and official institutions.

Foreign Awards of Bills at Auction, Percent



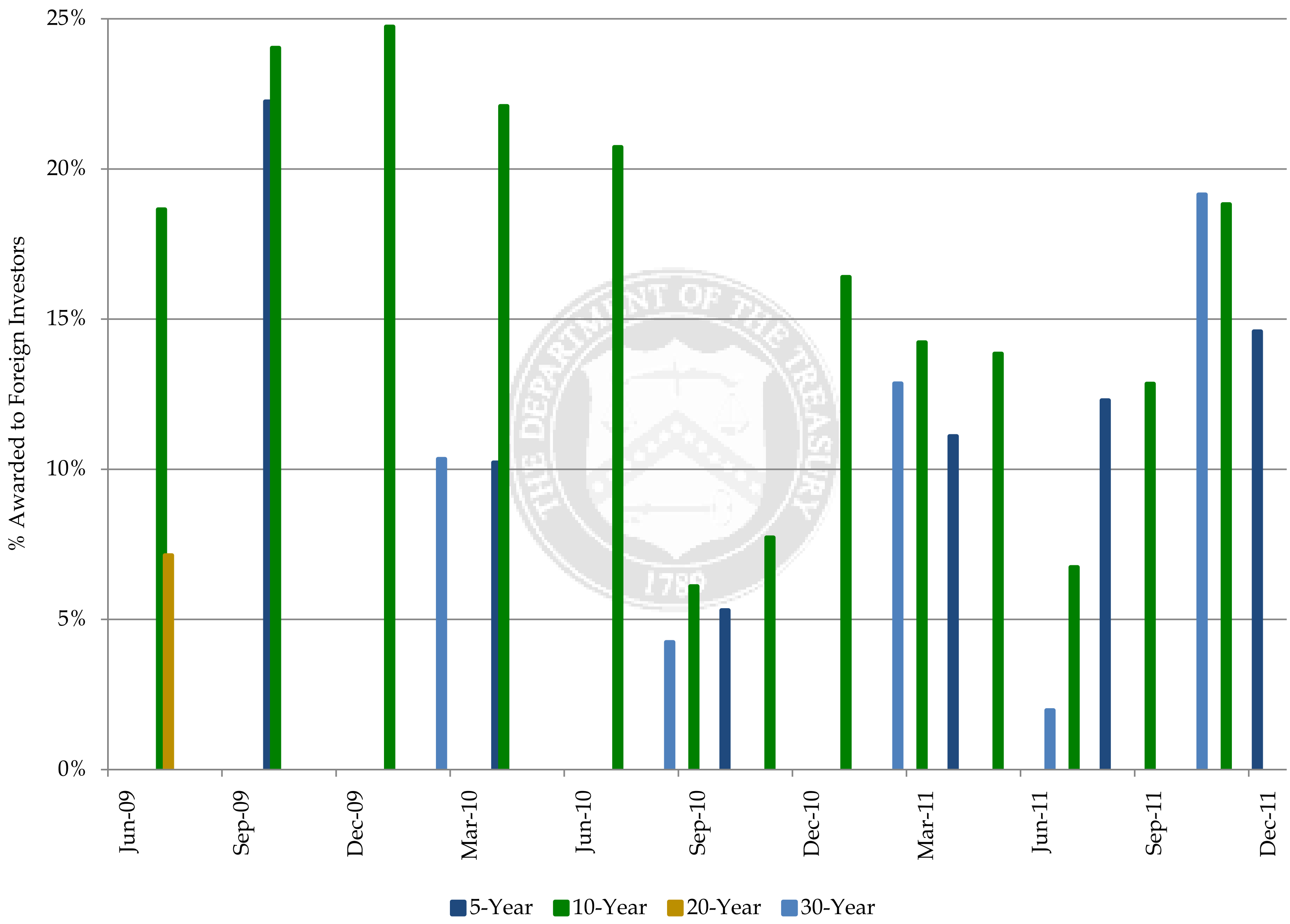
Excludes SOMA add-ons. Foreign includes both private sector and official institutions.

Foreign Awards of Nominal Coupons at Auction, Percent



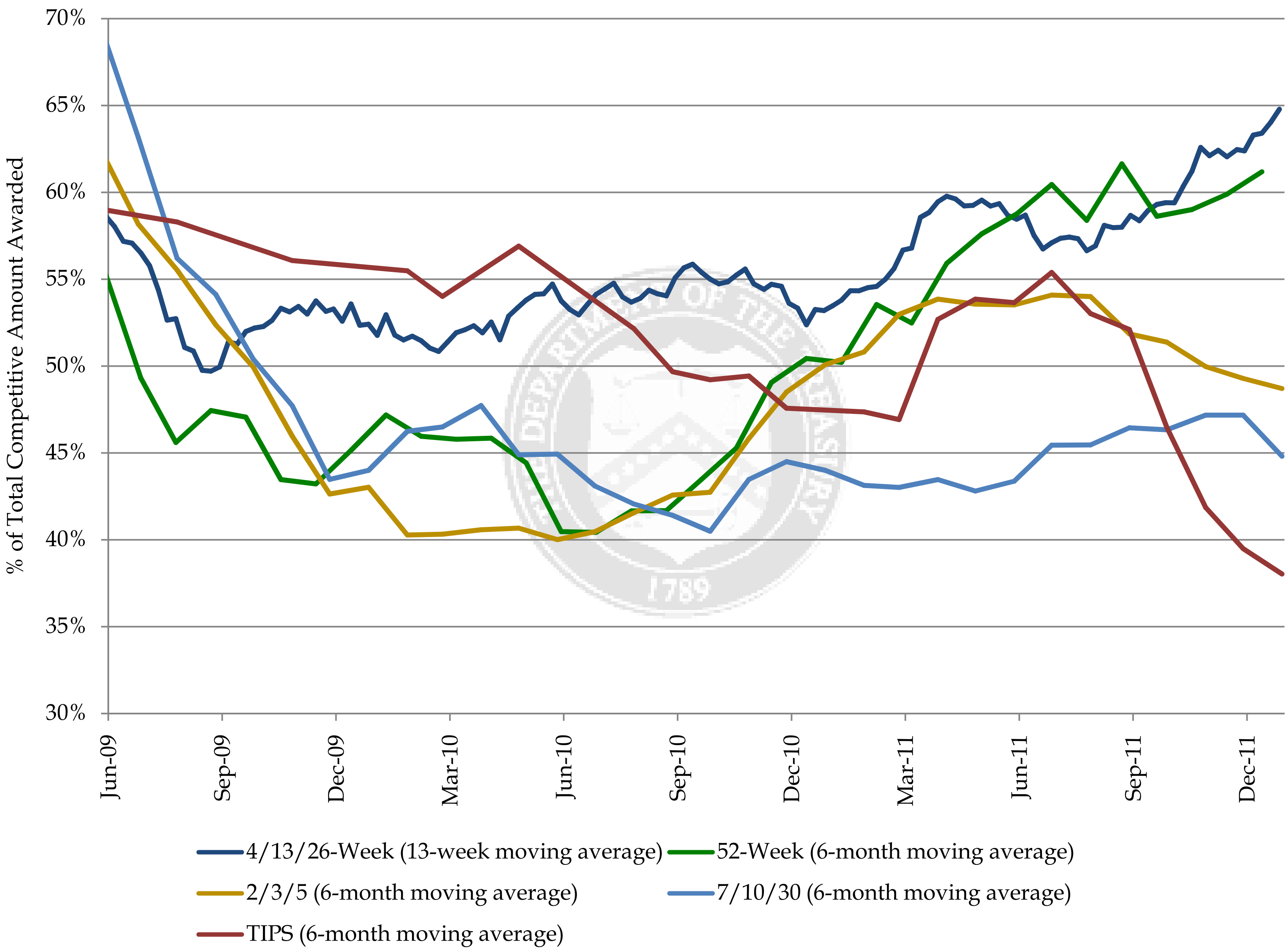
Excludes SOMA add-ons. Foreign includes both private sector and official institutions.

Foreign Awards of TIPS at Auction, Percent



Excludes SOMA add-ons. Foreign includes both private sector and official institutions.

Primary Dealer Awards at Auction, Percent

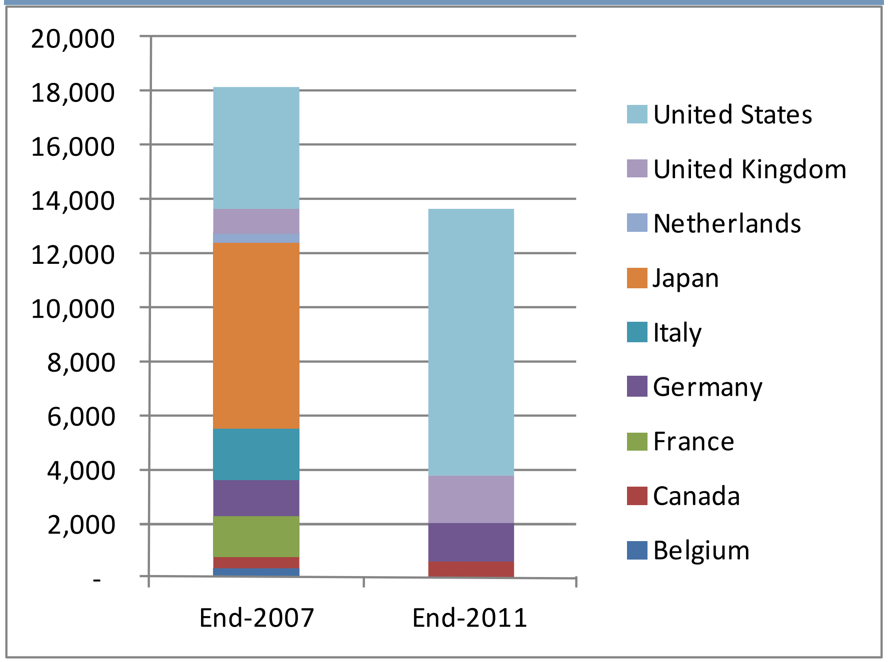


US TREASURY FLOATING RATE NOTES

February 2012

The demand backdrop for US Treasuries – whether FRNs or fixed rate debt – should benefit from a structural decline in the stock of high quality assets

Total debt outstanding for G-10 countries with 5Y CDS spreads less than 100bp, as of end-2007 and end-2011; USD bn

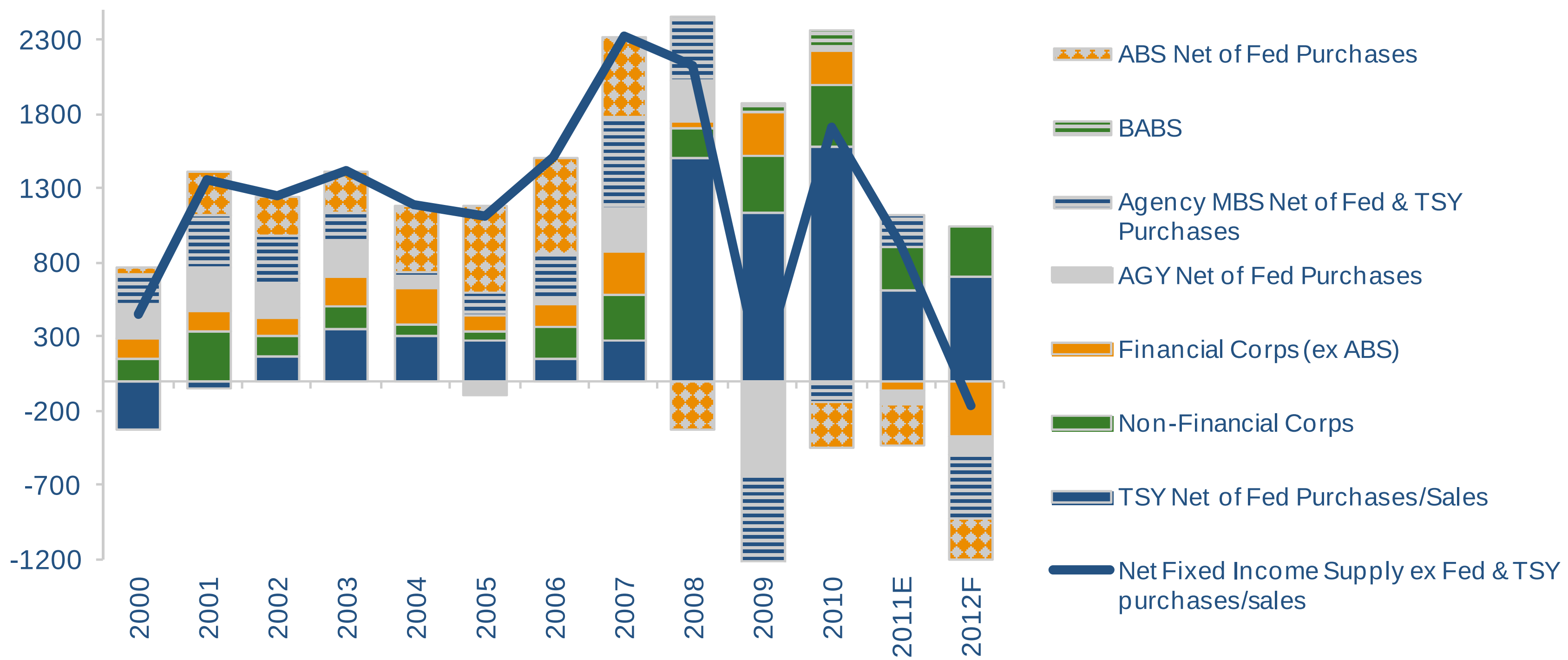


Note: Sweden and Switzerland were excluded due to lack of data. For end-2011, Canada data is as of March 2011, and Japan data is as of September 2011. For European sovereigns, we assume that the amount of bills and non-domestic bonds outstanding is unchanged between 2007 and 2011.

- Using market-based risk assessment provides a useful view of the altered investment environment
  - The stock of bonds issued by sovereigns with 5Y CDS spreads below 100bp has fallen sharply since 2007, excluding the US (whose CDS spread is below 50bp)
  - In other words, US sovereign debt is now a higher fraction of the “higher quality” sovereign debt universe, likely resulting in a supportive demand backdrop for US Treasuries

Within the US fixed income markets, the share of Treasuries is growing while the share of other high-quality assets is falling

Net issuance for various fixed income products by year ; $bn

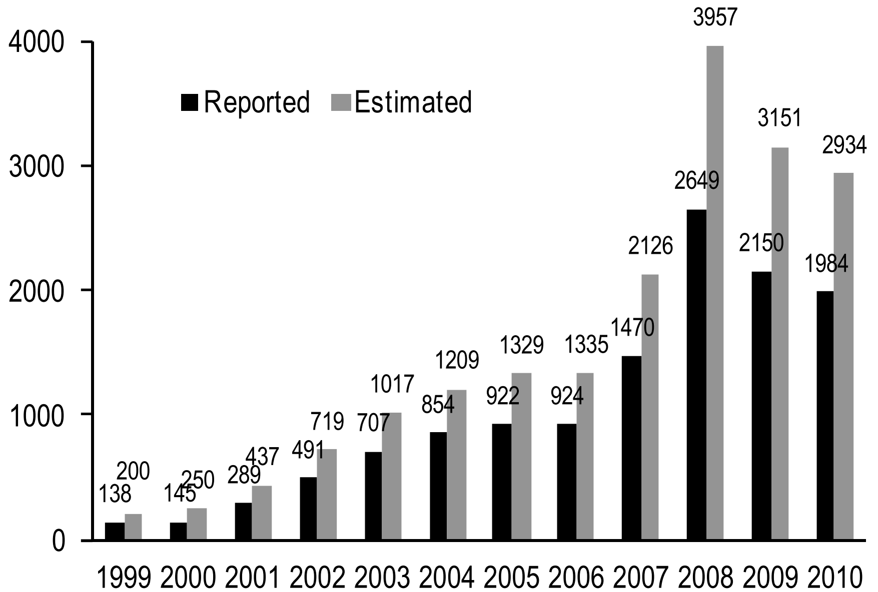


Will the Basel III LCR requirements trigger increased demand for US Treasuries in general and FRNs in particular?

- Market analysts estimated a Liquidity Coverage Ratio of 57% for 30 large bank holding companies, resulting in a gross shortfall of about $500bn - $1Tn depending on mitigation actions undertaken
- While Treasury floaters would be attractive for LCR purposes, the net demand for FRNs due to LCR provisions is likely to be modest
  - Treasury floaters are likely to yield less than liquid assets currently held by banks (fixed rate Treasuries/Agencies/Agency MBS).
  - While Treasury floaters would be lower duration than current alternatives, many banks are efficient duration hedgers and may be able to achieve higher returns net of hedging cost using the current mix of assets
  - With the Fed currently paying banks 25bp on excess reserves, banks are likely ignore Treasury floaters unless the yield at least matches IOER.
- Also, certain regulatory capital implications of Basel III provisions related to AOCI could, on the margin, incentivize banks to buy FRNs over fixed rate debt
  - However, this is one factor among several driving asset selection, and we expect the net preference for FRNs over fixed rate debt to be rather modest

Implementation of Dodd Frank's central clearing provisions will also create some modest net new demand for high quality collateral such as US Treasuries

Growth of value of total reported and estimated collateral, 2000-2010; $bn



Source: ISDA Margin Survey 2011

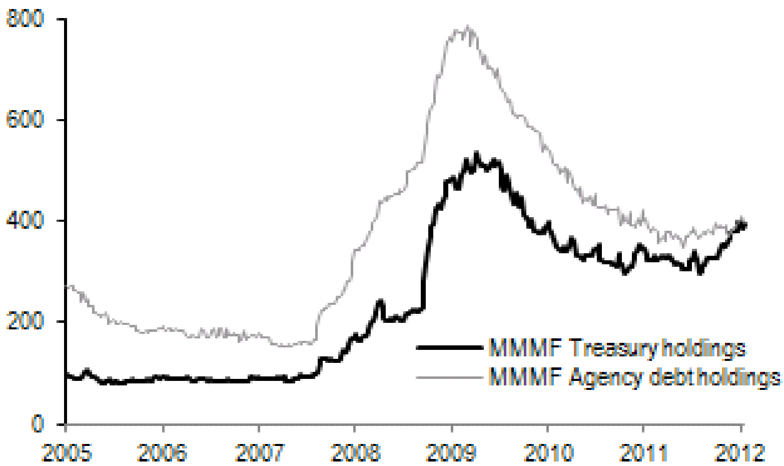
Value of collateral received and delivered by respondents, $mn

	Collateral received	Percent	Collateral delivered	Percent
Cash	**877,552**	**81%**	**715,444**	**80%**
Government securities	**106,697**	**10%**	**154,821**	**17%**
US	38,606	4%	48,409	5%
EU	22,943	2%	66,705	7%
UK	10,948	1%	13,414	1%
Japan	21,005	2%	17,438	2%
Other	13,196	1%	8,854	1%
Others	**100,699**	**9%**	**29,143**	**3%**
Total collateral	**1,084,949**		**899,408**	

- About 82% of gross credit exposure appears collateralized already—full implementation of Dodd-Frank could cause demand for collateral to rise by about $650bn
- However, this does not directly translate into increased demand for Treasuries—the ISDA margin survey also indicates that Treasuries and Agencies make up only about 6% of collateral, which is predominantly composed of cash
- Thus, the incremental demand for USTs due to increased collateral requirements stemming from the implementation of Dodd-Frank's central clearing provisions could turn out to be modest.
  - Caveat – it is possible that the move to hold collateral in custodial accounts rather than on a bilateral basis could lower returns on cash and alter the fraction of USTs in the mix. An increase in this fraction could result in considerable demand for USTs
  - In addition, the fraction of cash relative to overall collateral could decline as short-term rates rise, leading to higher fractions of other assets such as USTs
  - Here again, any such incremental demand will not discriminate between FRNs and fixed-rate securities

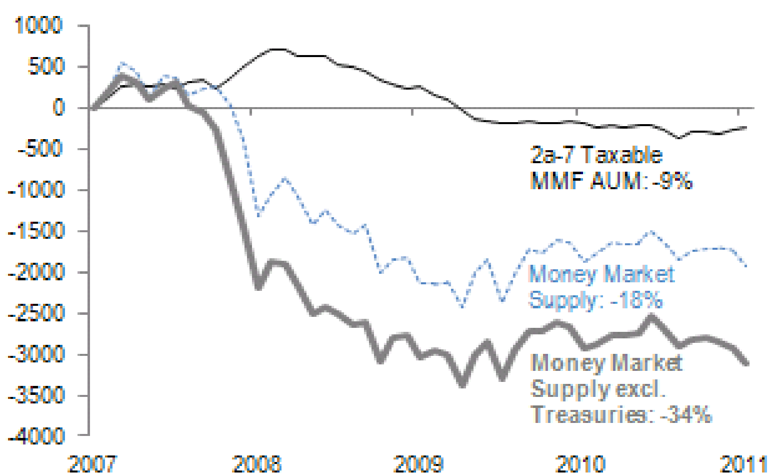
Money market investors have been increasing Treasury holdings recently thanks to a plunge in supply ex-Treasuries …

Estimate of MMMF Treasury and agency securities holdings, $bn



Source: iMoneyNet, Crane Data, J.P. Morgan
Note: Agency securities holdings includes discount notes and floating rate notes.

2a-7 Taxable MMF AUM vs. Money Market Supply, $bn, cumulative since 2007 year-end



Source: iMoneyNet, J.P. Morgan, Bloomberg

- Money fund AUM is modestly lower over the past four years, but money market supply has shrunk by 18%
- MMMF's are significant holders of Treasury and Agency securities
  - MMMF's hold about $400bn in Treasury and Agency securities each for combined $800bn, representing about 1/3 of AUM
  - In addition, repo holdings backed by Treasury securities and Agency securities (including Agency MBS) are approximately $150bn and $250bn, respectively
  - Preference for T-bills and Agency discount notes, but funds do own coupon securities including about $125bn in Agency FRNs with maturities 2 years or less
  - There could be demand for Treasury floaters yielding more than T-bills, but MMMF preference is likely under 2 year final maturity
- Other significant money market investors not bound by rule 2a-7 may have interest in Treasury floaters as a substitute for lower yielding bank deposits, money market fund shares, fixed-rate Treasuries and agencies, or other money market instruments.
  - **Securities Lending operations of custodial banks.** Historically buyers of floating rate ABS, corporates and agencies with maturities out to 3 years. Market analysts have estimated total investments by these securities lenders exceed $1tn, of which floaters currently account for about $200bn
  - **State and local governments.** Commonly invest operating and other funds in Treasuries, Agencies and MMMF shares.
  - **The mortgage GSEs.** Actively invest excess cash by selling Fed funds, investing in Treasuries and repo and time deposits with a limited number of financial institutions. Treasury floaters with yields in excess of the Fed funds rate could be attractive.
  - **Corporate cash.** The recent growth of US corporate cash balances has led to growth in bank deposits, MMMF and other liquid investment strategies. For many firms, Treasury floaters could be an easy to use alternative to these investments.

... but while this could be an initial tailwind, it is unlikely to be a long-term positive for demand

- Over the past 2 years, declining supply of T-Bills and Agency obligations have forced short-term liquidity investors into credit products such as CP/CDs, and any new supply would likely be well received
- However, in the longer term, regulation of money-market funds could alter their appeal to investors, subsequently altering their demand profile for any floating rate note issuance.
  - One offset – to the extent that money market regulation could cause assets to flow into short-term bond funds, those funds could in turn emerge as a demand source for FRNs

Revisiting the case to term out debt maturities

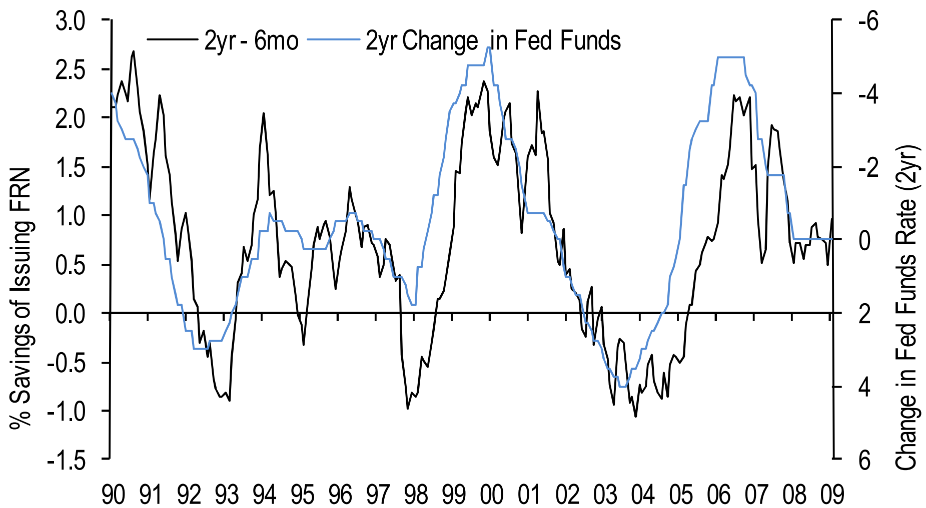
- Treasury terms out debt in order to reduce debt rollovers as well as the uncertainty regarding future debt service costs. Thus, extending the average maturity of outstanding Treasury debt is most beneficial when current term rates are low and/or the risk of large future changes in Treasury rates are at risk to the upside.
- Term Treasury yields are a composite of three things
  - Expectations of the future path of the Fed Funds rate
  - Sovereign credit spreads, and
  - Term premium
- By replacing T-Bill issuance with nominal fixed rate Treasury issuance, the Treasury locks in:
  - The current path of the expected increase in Fed Funds (currently benign)
  - Current credit costs as reflected in the current sovereign CDS credit spread (currently low)
  - The current yield curve term premium (currently low)

FRNs can help reduce the debt roll-over burden, without paying the yield curve term premium, but at the expense of retaining exposure to rising interest rates and credit costs

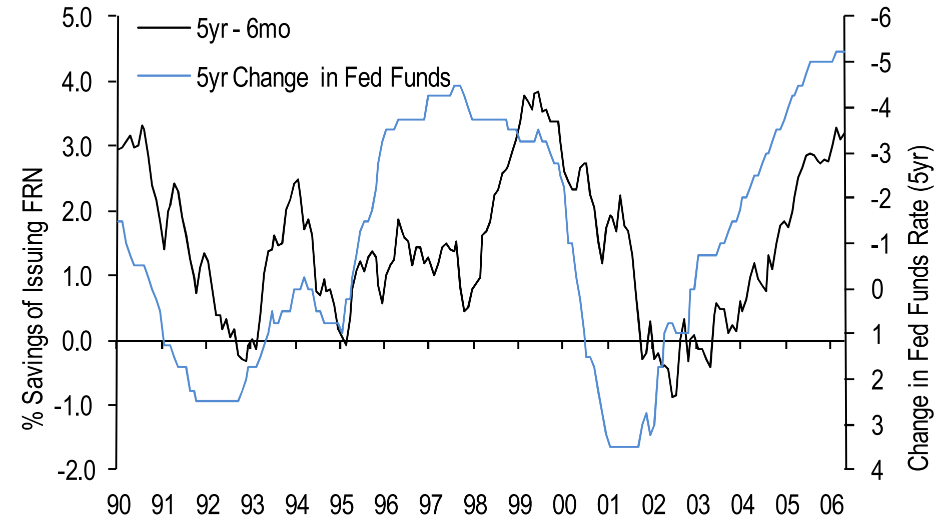
- By issuing FRNs with a term of (say) 2 years, Treasury can capture the low funding costs of T-bills, while effectively terming out issuance and reducing roll-over requirements
  - As an example, monthly issuance of (say) $10bn of 2-year FRNs raises $240bn over two years, and increases the rollover burden by $10bn/month once the auction cycle is fully phased in (i.e., after two years)
- Issuing an equivalent $240bn of securities by increasing 3 and 6 month bill offerings could boost the monthly roll-over requirement by $40-80bn.
- However, by choosing to substitute T-Bill issuance with FRNs rather than with fixed rate debt of similar maturity, the Treasury:
  - Does not lock in a future path of short rates, and instead takes on that risk in exchange for not paying the (usually positive) interest rate risk premium priced into the curve
  - It does lock in term funding, and thus takes advantage of its currently low sovereign CDS spread.
  - However, it may retain exposure to a widening in its sovereign CDS spread if its floating debt costs are indexed to some benchmark that is affected by it (e.g., T-bill yields)

The benefits of issuing Floating Rate Notes versus fixed-rate debt

Trailing hypothetical savings (relative to a 2Y fixed rate note) from issuing a 2Y FRN indexed to 6-month T-bill yields at a zero spread, versus the trailing change in the fed funds rate over the 2-year period



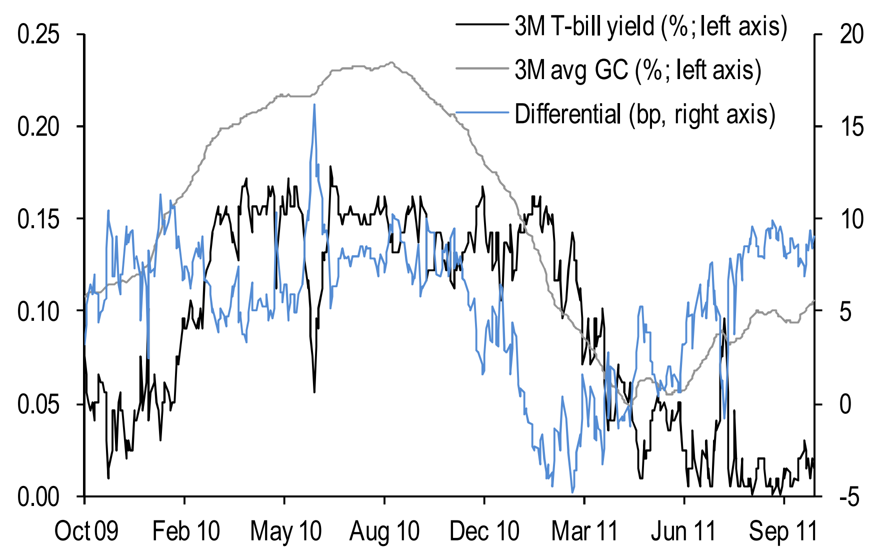
Trailing hypothetical savings (relative to a 5Y fixed rate note) from issuing a 5Y FRN indexed to 6-month T-bill yields at a zero spread, versus the trailing change in the fed funds rate over the 5-year period



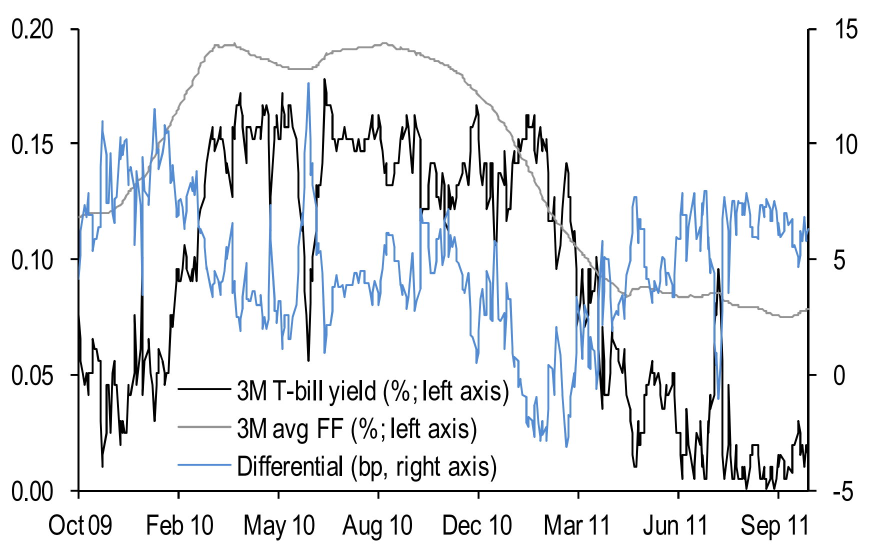
- FRNs allow Treasury to term out its funding while lessening average funding costs in the long run
- Given typically positive term premium in the yield curve, the realization of short rates over a fixed term (say, 2- or 5-years) will on average be lower than the ex-ante term rate
- Thus, issuing FRNs—assuming the issuance spread is not too high, and assuming that FRNs substitute for fixed rate notes—can produce cost savings on average. This has historically been the case, as shown in the charts above
- Last, to the extent that UST FRNs draw in new incremental demand from investors who cannot hedge the interest rate risk in fixed rate Treasuries, this should result in an aggregate benefit to Treasury

Savings depend less on the choice of the reference rate index, and more on the tenor of issuance that FRNs will replace - issuing FRNs instead of Bills will yield maturity extension benefits but not cost reduction

3-month T-bill yield and ex-post 3-month average of GC index (GCFRTSY Index) versus cost/savings of floater



3-month T-bill yield and ex-post 3-month average of effective Fed funds (FEDL01 Index) versus cost/savings of floater



- FRNs – whether indexed to bill yields or an overnight index such as fed funds or GCF – would have historically produced largely similar cost savings
- Charts alongside show that the rolling differential between GC/fed funds with respect to bills is stable and relatively small. Thus, savings from issuing FRNs might be expected to be less dependent on the choice of index
- Savings with respect to **rolling bill issuance** would be expected to be negative; the price of terming out debt while still paying short term rates will be reflected in the spread over bill yields that Treasury will need to pay on an FRN, which is discussed later.

Estimating the forward-looking benefits to Treasury from FRN issuance

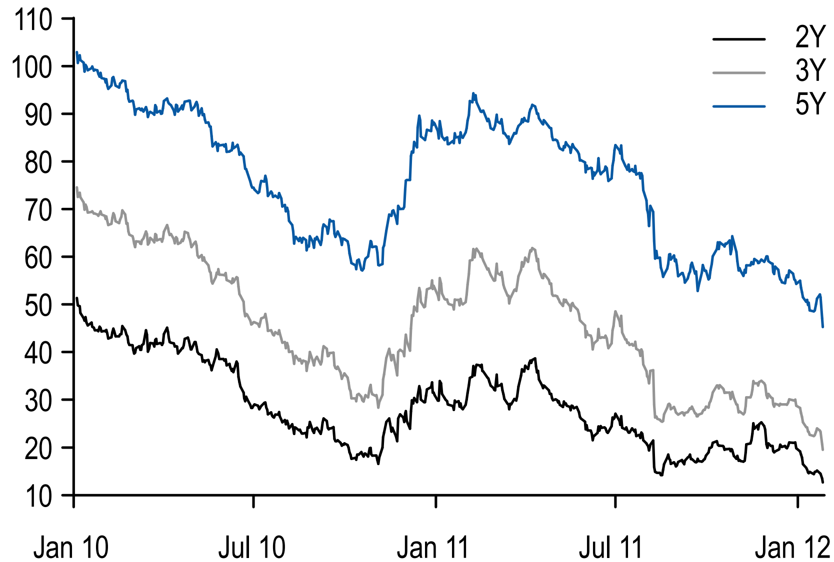
- Three factors determine the costs/savings of FRNs versus fixed-rate debt
  - The pricing spread – e.g., what fixed spread over (say) floating 3-month bill yields Treasury pays to issue a par priced FRN
  - The level of interest rate risk premium at time of issuance
  - The Fed's monetary policy stance—savings are likely to be greater when the change in the funds rate is negative, and especially when such change is more negative than the expectations priced into forwards
- The first of these – pricing spreads – will likely not be onerous enough to materially reduce the savings from issuing FRNs
  - Even if FRNS are initially less liquid, market participants will likely arbitrage away any significant differences from the spread implied by fixed rate note asset swap levels, thanks to a highly developed interest rate derivatives market
  - Experience in other fixed income product sectors that have fixed rate notes as well as FRNs suggests that this is historically true

A closer look at yield curve term premium

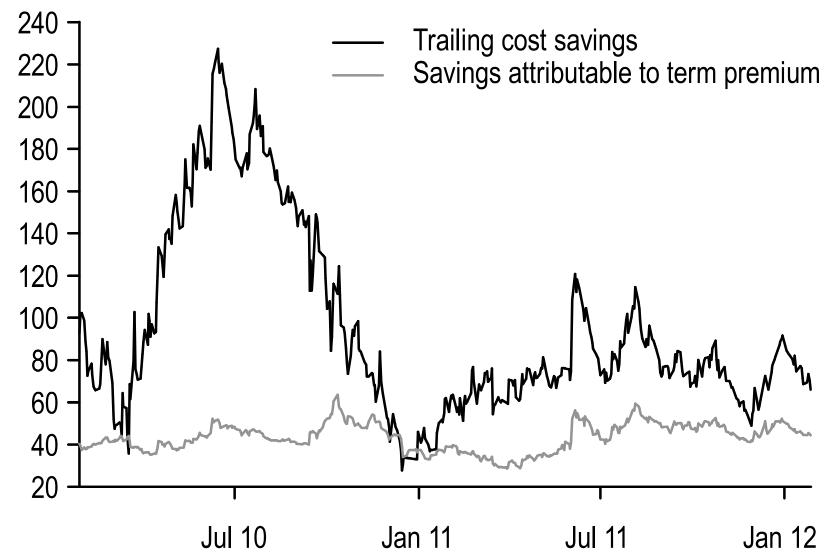
- Term premium itself may be thought of as being composed of two parts
    - the cost of maturity extension, as well as
    - the premium for the privilege of fixing funding costs, which we may think of as just the interest rate risk premium
- We may estimate the former by looking at the asset swap spread of term Treasury debt over Bills – e.g., if 2Y notes swap to 3M bill yields + 8bp to term, then 8bp represents the cost of maturity extension
- In near-zero rate regimes, we may estimate the interest rate risk premium via cap costs
    - It is reasonable to assume that the risk to short-rates is one-sided, there is similarity between the cost of an at-the-money cap on short rates (expressed in yield terms) and the portion of term premium attributable to the uncertainty in short rates
    - Estimation is subject to basis risks, since the cap market is based on Libor and not OIS forwards; Libor cap costs likely overestimate interest rate risk premium currently, because of higher Libor rate volatility
- FRNs will incur the costs associated with maturity extension, while saving on interest rate risk premium (relative to issuing term debt)

Is this the best time in the cycle for FRN issuance from Treasury's perspective?

Estimated interest rate risk premium* by maturity; bp of yield



Rolling 2-year savings from issuing a 2-year FRN linked to 6-month T-bills relative to issuing fixed-rate notes versus 2Y interest rate risk premium; bp of yield

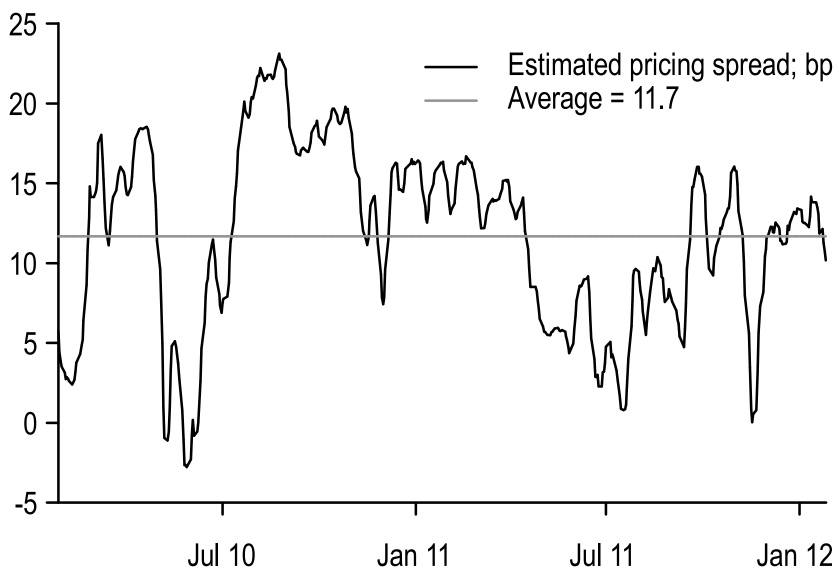


* Estimated as the cost of an at-the-money cap on short rates, in yield terms. This is premised on the notion that in near-zero policy rate regimes, the one-sided nature of policy rate risk makes interest rate risk premium comparable to cap costs.

- Current levels of interest rate risk premium are low, and the risk to the expected path of policy rates is likely asymmetrically biased higher
  - The Fed's commitment to low rates until late-2014, as well as its new communications policy of projecting a path for the funds rate, have already lowered interest rate risk premium, and this is unlikely to rise for several years.
  - Given *de minimis* monetary policy rates currently, the next move by the Fed is only likely to take the funds rate higher
  - With interest rate risk premium currently near all time lows, savings are likely to be marginal

What about the cost – where might Treasury FRNs price?

Estimated pricing spread on a hypothetical 2Y FRN linked to 3M Treasury bills*; bp

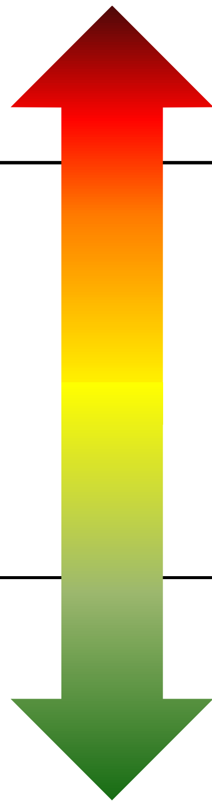


* Assumes that FRNs will price at the same asset swap level as a maturity matched bullet Treasury.

- Regardless of the choice of floating rate index used to specify the coupons in any potential FRN issued by Treasury, it is useful to consider the par priced FRN spread-over-bills for purposes of analysis
  - I.e., if the basis swap market is used to transform the FRN into a floater linked to bill yields, what would the pricing spread be for a par priced FRN at time of issuance
  - This represents the direct "cost" incurred by Treasury, for the sole purpose of terming out its debt
  - It is reasonable to assume that this will not fall below zero; should it do so, Treasury has a strong incentive to issue FRNs in place of T-bills
- The chart alongside shows the hypothetical pricing spread, if FRNs were to price at the same asset swap spread as a maturity matched fixed rate Treasury note. This is a reasonable estimate of where FRNs might price

A stylized illustration of the relationship between pricing spreads and the attractiveness to Treasury

A schematic illustration of the attractiveness of issuing FRNs from Treasury's perspective, for various pricing spreads (versus a T-bill floating index)



Bills + maturity extension premium + interest rate risk premium

Not attractive
FRNs deliver maturity extension at a higher cost than term fixed-rate debt

Likely pricing spread = bills + maturity extension premium

Attractive
FRNs still deliver savings from term premium but give some of it back for the privilege of extension

Bills + 0

Very attractive
FRNs deliver maturity extension as well as cost savings relative to term debt or rolling bills

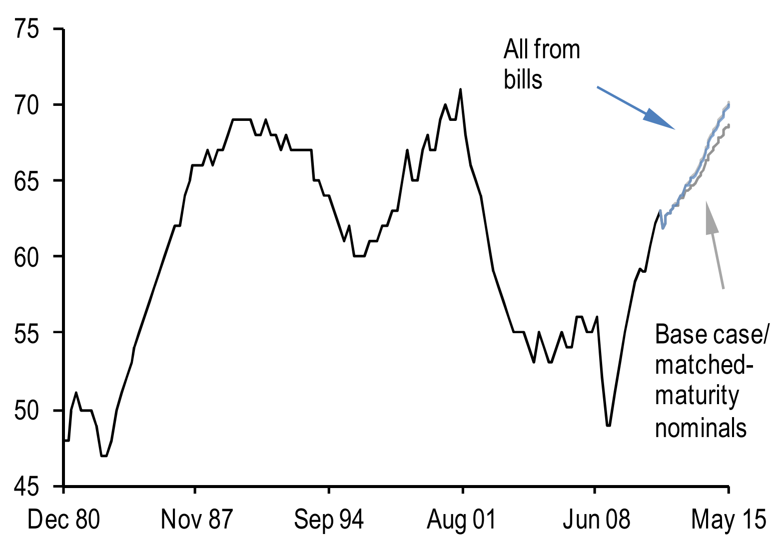
The impact of FRN issuance on the weighted average maturity of Treasury debt will likely be relatively modest in the initial years

- We consider 3 stylized issuance policies: Treasury issues FRNs at the expense of reduced issuance in (i) T-bills, (ii) matched maturity fixed rate issuance, or (iii) a reduction in fixed rate coupon Treasury issuance in proportion to current gross issuance
- Replacing matched maturity fixed rate debt does not alter WAM, but the other two policies will alter WAM
  - Issuing FRNs wholly at the expense of bills will have the greatest impact on WAM
  - Assumes \$50bn in annual FRN issuance beginning in May 2012 (\$25bn in 2s, \$15bn in 3s and \$10bn in 5s), which is increased to \$100bn annually by 2014
  - The increase in WAM is likely to be modest even if done wholly at the expense of T-bills

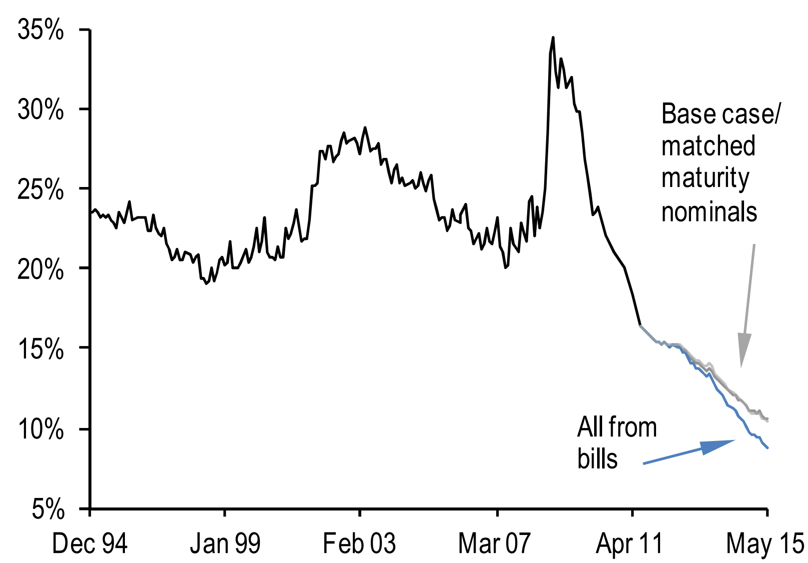
Date	Projected WAM in different scenarios; months		
	Base case: matched-maturity nominal coupon sizes are reduced to issue floaters	Bill issuance is reduced to issue floaters	Nominal coupon sizes are reduced proportionally across the maturity stack
Sep-12	63.4	63.5	63.4
Sep-13	65.4	65.5	64.8
Sep-14	68.3	68.6	67.1
May-15	70.0	70.3	68.4

Note: The base case assumes that coupon sizes are unchanged while net bill issuance adjusts as the budget deficit increases/decreases. Also, FRN issuance is assumed to occur at the expense of maturity matched fixed rate coupon issuance .

Historical and projected WAM of marketable Treasury debt based on scenarios #1 and #2 in table above



Historical and projected share of T-bills as %ge of marketable Treasury debt based on scenarios #1 and #2 in table above



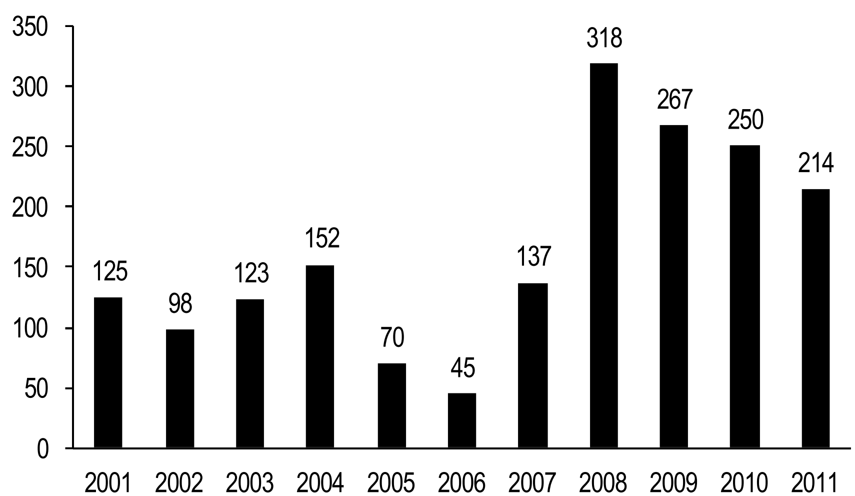
The majority of the Agency floater market is linked to Libor or Fed funds

Distribution by original maturity (years)	
0-1	0.2%
1-2	16.7%
2-3	75.5%
3-4	4.9%
4-5	0.3%
5-6	1.5%
6-7	0.1%
7-8	0.0%
8-9	0.0%
10-11	0.1%
12-13	0.1%
15-16	0.4%
20-21	0.1%
>30	0.2%

Distribution by underlying benchmark type	
1M Libor	64.8%
FF Effective	25.9%
3M Libor	5.4%
Prime rate	2.8%
3M T-bill	0.7%
CPI	0.1%

Distribution by reset frequency	
Monthly	64.9%
Daily	28.6%
Quaterly	5.6%
Weekly	0.7%
Semi-annually	0.2%

FNMA, FHLMC and FHLB floaters outstanding; $bn



- About $153bn of Agency floaters are outstanding currently, which is about 7.2% of the total Agency debt market
- Most of these structures reference Libor or Fed funds as an index
  - Demand for floaters linked to Libor and FF may be due in part to the deep and liquid derivatives markets based on these indices, allowing for efficient hedging of risks
  - These indices have disadvantages too – exposure to banking system credit risk (in the case of Libor), and the Fed funds effective rate is distorted by IOER and related inefficiencies

The corporate floater market is also predominantly linked to Libor as an index rate

Distribution by original maturity (years)

0-1	3.42%
1-2	23.46%
2-3	34.89%
3-4	1.86%
4-5	13.76%
5-6	2.03%
6-7	5.24%
7-8	1.50%
8-9	0.28%
9-10	12.02%
10-11	0.22%
11-12	0.24%
19-20	0.63%
12-13	0.03%
28-29	0.00%
29-30	0.32%
30-31	0.09%

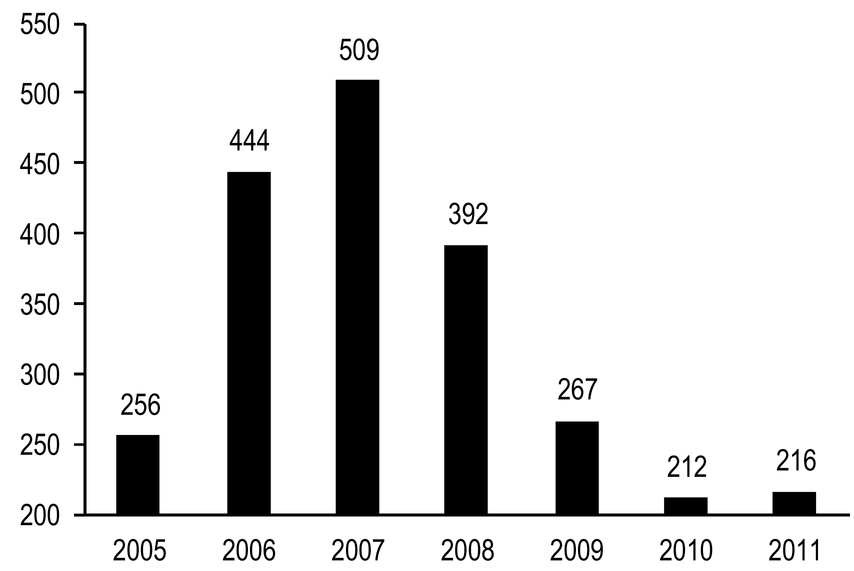
Distribution by underlying benchmark type

3M Libor	96.10%
1M Libor	3.38%
FF Effective	0.38%
6M Libor	0.09%
Prime Rate	0.04%
3M T-bill	0.01%

Distribution by reset frequency

Quarterly	96.13%
Monthly	3.39%
Daily	0.42%
Semi-annually	0.05%
Weekly	0.01%

High grade corporate floaters outstanding*; $bn



* Includes only index-eligible floaters. (Floaters with <$300mn outstanding and less than one year to maturity are excluded.)

Possible Options for a Reference rate index

Index	Decrease Treasury's rollover risk	Diversify Treasury's funding costs	Reduce basis risk in the system	Already used in existing markets	Will likely appeal to retail investors	Will likely appeal to money market investors	Additional Notes
LIBOR	yes	partially	yes	yes	yes	yes	Provides for a variety of reset frequencies from overnight to 12-month. More attractive to some investors as more closely linked to their liabilities. Subject to banking system funding pressures. Diversification benefits will be somewhat limited, since issues around sovereign credit concerns would likely also result in higher LIBOR. Nonetheless, with only 3 US banks in the USD Libor panel, some degree of diversification is likely.
T-bills	yes	no	yes	yes	yes	yes	Typically indexed to weekly auction clearing rates. Treasury could also explore daily resetting to secondary/ constant maturity T-bills data released by the Fed, but this could reduce transparency. Would enable frequent resets keeping price of floater close to par and thus making it more attractive to investor types that value price stability such as money market funds. Will be of interest to investors who typically roll T-bills. While this market exists, very small percentage of Agency and Corporate FRNs are linked to T-bills (0.7% and 0.1%, respectively). Changes in Bill auction schedule would result in changes in floaters in which resets are linked to bill auctions. Not significantly different than T-Bills, risking cannibalization of T-Bill demand.
Fed funds eff. rate	yes	yes	yes	yes	partially	yes	Daily resets. Would enable daily resets keeping price of floater close to par and thus making it more attractive to investor types that value price stability such as money market funds. Predictably low in current rate environment. Subject to changes in the Fed's monetary policy. Future of Fed Funds market is uncertain, as future of GSEs and Fed chosen policy tool is uncertain.
Fed funds target	yes	yes	no	no	yes	yes	A highly visible rate, but would will be hard to hedge given basis risk with tradable markets.
GCF repo rate	yes	no	yes	no	partially	yes	Could enhance Repo market itself. Could decrease demand for repo product and indirectly for nominal Treasuries.

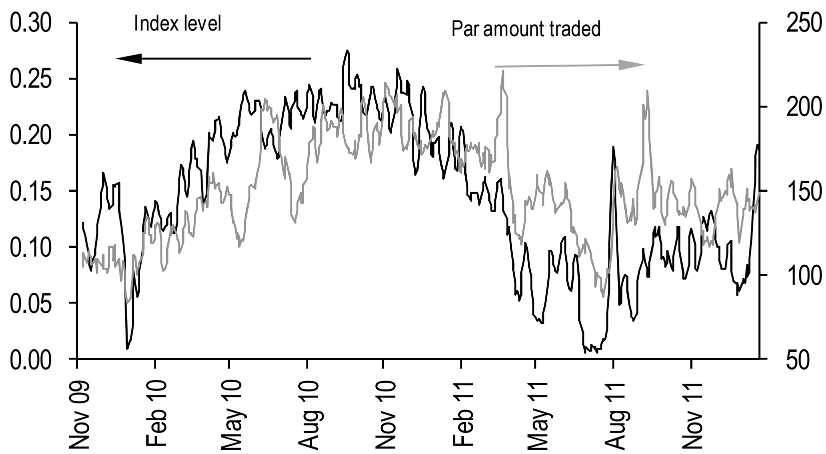
Comments on structural characteristics of FRNs

- Issuance in the existing floater market has been concentrated in maturities 5-years and in. More than 92% of the Agency market and 61% of the corporate floater market were issued with an original maturity of less than 3-years.
- Having a more frequent reset frequency will result in lower interest rate duration and thus lower price vol, and could be more desirable to investors seeking stable value assets. Daily and Monthly resets are more typical in Agency FRNs, while quarterly resets are more typical in Corporate FRNs
- Treasury should floor coupons payments at zero
    - This does note necessarily mean a zero floor on observations of the floating index rate. For instance, a note paying semiannual coupons, with daily accruals could result in negative observations on one or more days between coupon payment dates. Only the ultimate coupon payment needs to be floored at zero

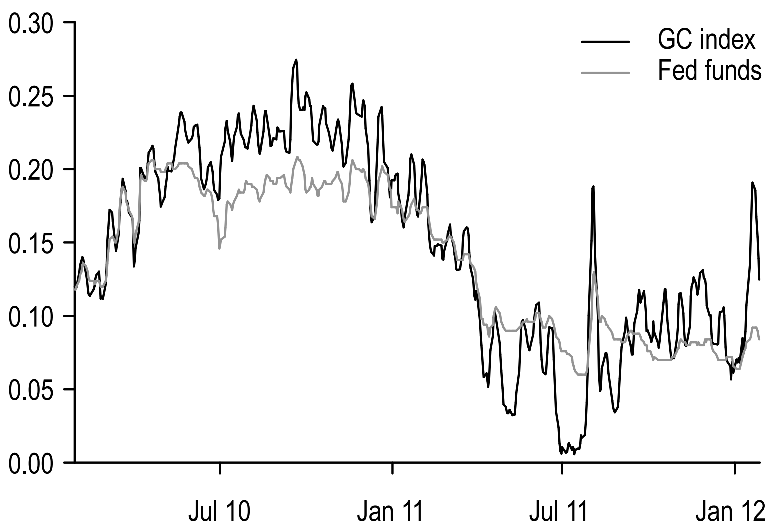
Choice of index rate and final maturity could also be a determinant of incremental demand for the product

1-week average of GCF Treasury index versus 1-week average of par amount traded;

% **$bn**



GC Index (GCFRTSY Index) versus effective Fed funds (FEDL01 Index); 1-week moving average; %



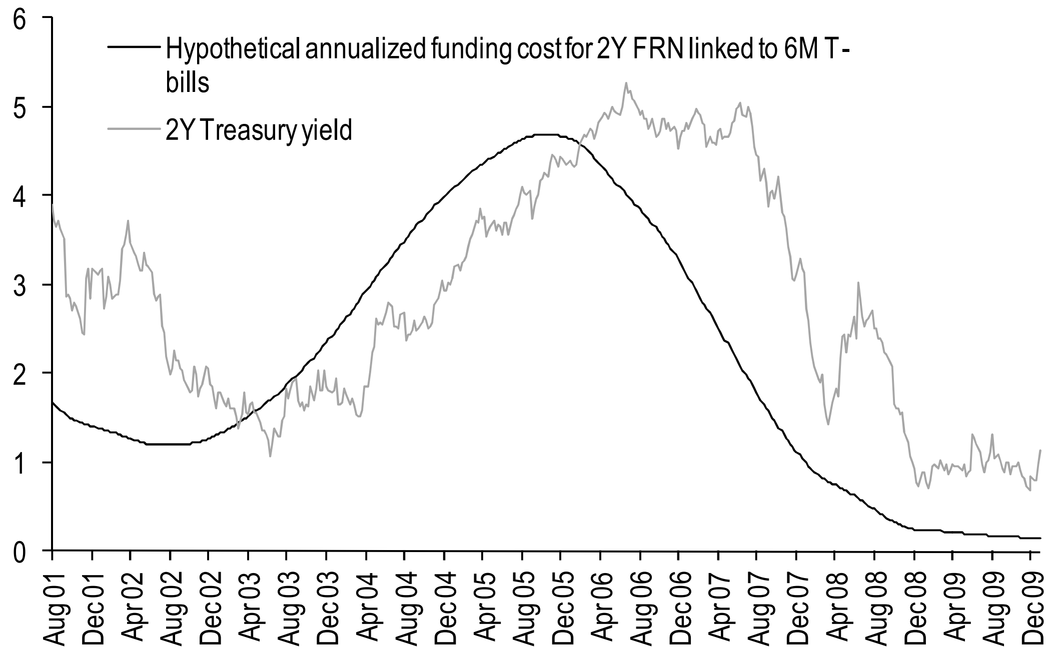
- Depending on final maturity there could be significant demand for a Treasury Floater Indexed to either overnight fed funds or GC Repo, primarily from Money-market funds and liquidity portfolios.
- Demand for an FRN linked to either of these indices would likely be driven by:
  - 2a-7 Money Market Funds (if the contingent final maturity is less than 397 days)
  - Corporate Treasury accounts not set-up to trade repo
  - Investment funds / Foreign accounts looking for a high quality floating rate asset
- The basis between GCF and fed funds is small on a smoothed basis, so returns on an FRN linked to either would likely be similar
- Both indices are amenable to daily resets, which would produce very low interest rate duration risk (but not spread duration), and thus lower price volatility. However, ratings agency guidelines favor indices that are more than 95% correlated to either fed funds or Libor, possibly making fed funds a better choice

Description of a sample 2Y FRN linked to 6M T-bill yields

Characteristics

- Maturity: 2-years
- Coupon: Floating
- Payment Frequency: Semi-Annual
- Reference Index: The average auction yield of 6-mo T-bill Auctions during reference period
- Day Count: Act / Act

Hypothetical annualized funding cost for a 2-year Treasury FRN linked to 6-month T-bill yields versus actual 2-year Treasury yield; %



Description of a sample 2Y FRN linked to the overnight fed funds and GCF rate indices

GC Index Floater Characteristics

- Maturity: 2-years
- Coupon: Floating
- Payment Frequency: Semi-Annual
- Reference Index: GCFRTSY <Index>
- The Index is the weighted average interest paid each day on General US Treasury Collateral in the dealer to dealer repo market.
- Average current daily volume is approximately $150bn.
- Day Count: Act / Act

Average Fed funds Floater Characteristics

- Maturity: 2-years
- Coupon: Floating
- Payment Frequency: Semi-Annual
- Reference Index: FEDL01 <Index>
- The index represents the volume-weighted average of interest rates at which depository institutions lend balances at the Federal Reserve to other depository institutions overnight.
- Day Count: Act / Act

Conclusions

- The demand backdrop is currently favorable for US Treasuries, but it is prudent for Treasury to consider broadening its issuance strategy to draw in more incremental demand
- Floating Rate Notes issued by Treasury are one such avenue, and could be attractive to money funds, investors seeking bonds with low duration risk, and possibly banks seeking to mitigate the accounting effects of some of the Basel III provisions
  - That said, any such incremental demand is likely to be modest in the near term
- The current timing does not appear ideal, although initiating an issuance program now could allow Treasury to position itself to capitalize on a more favorable market environment
  - Term premium in the yield curve is currently at all time lows, and the risk to the path of the funds rate is biased asymmetrically towards higher rates since further Fed easing is not possible
  - However, initiating a program now could help position Treasury for a future environment marked by higher term premia
- The choice of a floating rate index must balance the need for simplicity and transparency with the need to diversify Treasury's funding risk
  - Indexing to T-bills offers simplicity and transparency, but does not fully diversify funding cost risk
  - GCF offers the prospect of daily resets and very low duration risk, but is a more complex choice that is mostly unknown to retail investors
  - Libor offers simplicity & transparency, but this index creates exposure to banking sector credit for Treasury
  - Indexing to average Fed funds rate offers simplicity and transparency, overnight reset frequency, and a viable derivatives market for risk management. In addition, a reasonably well developed FRN market exists in other sectors. Its appeal to retail investors needs to be further studied