

Office of Debt Management



Presentation of U.S. Treasury's Debt Issuance Framework
November 19, 2015

Debt Management Objectives and Constraints

▶ Objectives

- ▶ **Least expected cost over time is supported by:**
 - ▶ Managing interest rate risk
 - ▶ Supporting market functioning and liquidity
 - ▶ Maintaining a broad investor base
- ▶ **Regular and predictable results in:**
 - ▶ Better market functioning and liquidity
 - ▶ Reduced issuance uncertainty which lowers cost

▶ Constraints

- ▶ Uncertainty – (Sources: legislative commitments, macro-economic forecast errors, technical modeling factors all create uncertainty in deficit forecasts)
- ▶ Size - Treasury is too large to behave opportunistically in the credit markets

Debt Management Policy

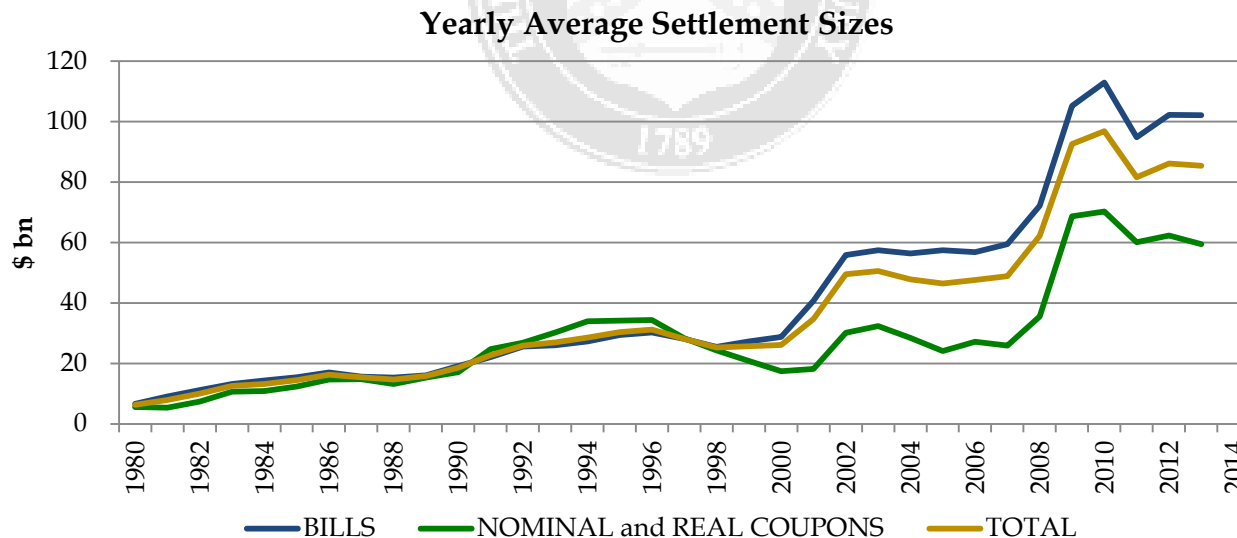
- ▶ Treasury is a regular and predictable market participant, not a market timer.
- ▶ Treasury doesn't react to current rate levels or short-term fluctuations in demand.
- ▶ Treasury can respond to uncertainty -- to rapidly raise cash or pay down debt.
- ▶ Treasury seeks continuous improvement in the auction process.
- ▶ Treasury strives for transparency and consults often with market participants.
- ▶ Treasury is well positioned to finance its debt obligations despite significant disruptions in its access to financial markets.

Debt Issuance Framework – Recent Developments



Treasury Cash Balance - History

- ▶ Historically, Treasury has sought to minimize cash balances, with a cash balance floor set at \$5 billion.
- ▶ This floor was established in the 1980s when auction sizes were substantially smaller than current auction sizes and Treasury faced a “negative carry” on cash balances which made holding large cash balances costly. Auctions were also less frequent in the 1980s than today.
- ▶ Prudent risk management during the 2008-2009 financial crisis resulted in Treasury increasing cash balances, but the formal minimum cash balance remained at \$5 billion.
 - ▶ From 2002 – 2008, the average daily cash balance was \$26 billion.
 - ▶ From 2009 – 2014, the average daily cash balance was \$63 billion.



Treasury Cash Balance – Precautionary Balance

- ▶ Historical experience suggests that it is possible for financial markets to be disrupted for several business days.
 - ▶ Hurricane Sandy: 1.5 days
 - ▶ September 11th: 2-3 days
- ▶ Treasury staff determined that it would be prudent from a debt management perspective to target a cash balance sufficient to cover large, unexpected outflows despite restricted access to financial markets.
- ▶ In the May 2015 quarterly refunding announcement, Treasury announced a policy to hold a level of cash generally sufficient to cover one week of outflows in the Treasury General Account, subject to a minimum balance of roughly \$150 billion.
 - ▶ Given the recent debt limit resolution, Treasury has begun to rebuild its cash balance, and projects a year end balance of \$325 billion, which should be sufficient to cover one week of outflows.
 - ▶ The bulk of this increase in cash balance is expected to come from bill issuance, which is projected to increase by \$147 billion.

Increasing Net Issuance – Demand for Bills

- ▶ As discussed during recent TBAC meetings, a number of developments have already increased, and are expected to further increase, demand for Treasury bills, including:
 - ▶ Market participants expect money fund reform to result in a significant reallocation of assets from prime to government-only funds.
 - ▶ New regulations have increased the costs for banks to fund with “non-operational” deposits. Accordingly, expectations are that at least a portion of these deposits may transition to government-only money market funds (MMFs) as a substitute.
 - ▶ Bank liquidity rules have encouraged an increased demand for high-quality liquid assets (HQLA) and a reduction of shorter-term or less stable funding sources.
 - ▶ Leverage ratios have also encouraged banks to reduce capital-intensive, low-return businesses such as repo.
 - ▶ Under new derivatives margin requirements being implemented pursuant to Dodd-Frank, Treasury bills as collateral have a favorable haircut treatment.

Increasing Net Issuance – Treasury Analysis

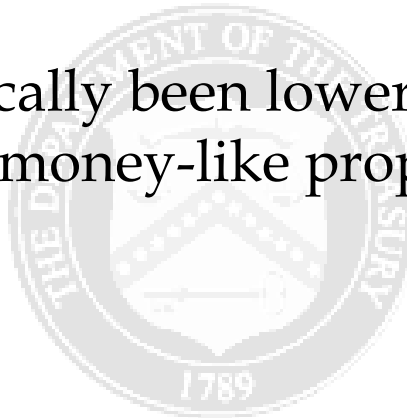
- ▶ The May 2015 Treasury refunding announcement of intent to increase bill issuance reflects Treasury's commitment to market functioning and liquidity.
- ▶ A liquid, efficient market for Treasury securities provides many benefits.
 - ▶ The private sector uses Treasury securities as a benchmark for issuance.
 - ▶ A risk-free asset is useful for collateral.
 - ▶ A liquid market promotes the transmission of monetary policy.
- ▶ Maintaining a liquid market at all points on the curve requires a minimum level of issuance.
 - ▶ Must maintain a supply of Treasury securities that is appropriate relative to market demand.
 - ▶ Treasury must issue in a regular and predictable manner.
 - ▶ Treasury securities enjoy a “liquidity premium” lowering interest expense.
- ▶ Maintaining minimum issuance sizes may compete with Treasury's least cost objective.
 - ▶ The cancellation of the 30-year bond in 2001 is a case study.

Least *Expected* Cost Over Time

- ▶ Managing interest expense is very important.
 - ▶ FY-2015 deficit is 2.4 percent of GDP. Interest expense is 1.2 percent of GDP.
 - ▶ From FY-2016 through FY-2025, reducing interest expense on all new issuance by 5 basis points would reduce the cumulative deficit by nearly \$50 billion.
- ▶ We will be constantly issuing debt for the foreseeable future. The *expected* cost of issuance over time is critical.
 - ▶ For example, is it more cost effective to issue a 5-year note and roll it in 5 years time or to issue a 10-year note?
 - ▶ It is not relevant whether the yield curve has a positive slope or whether rates are high or low relative to historic levels.
- ▶ For a given amount of debt issuance, the relative costs of issuing at different points on the curve matter.
 - ▶ Over the past several decades, estimates of term premiums have declined.
 - ▶ Treasury bills have historically had lower interest rates than coupon securities with the same remaining maturity.

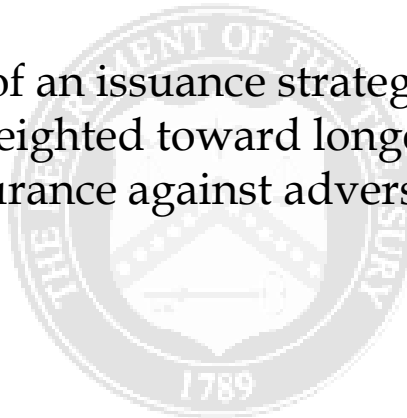
Least *Expected* Cost Over Time

- ▶ Elevated demand for high-quality liquid assets is a well-documented phenomena that existed well before the financial crisis and regulatory response (Stein et al 2011).
- ▶ Bill yields have historically been lower due to various factors including their liquid, money-like properties.



Interest Rate Risk and Insurance Considerations

- ▶ Interest rate risk may be a consideration when analyzing the impact of increased short-term debt issuance.
 - ▶ Bills must be rolled over more frequently than coupons, and are therefore more sensitive to unanticipated interest rate shocks.
- ▶ The interest-rate risk profile of an issuance strategy can be altered by considering alternative strategies more weighted toward longer-dated issuance, thereby possibly providing some insurance against adverse interest rate scenarios.



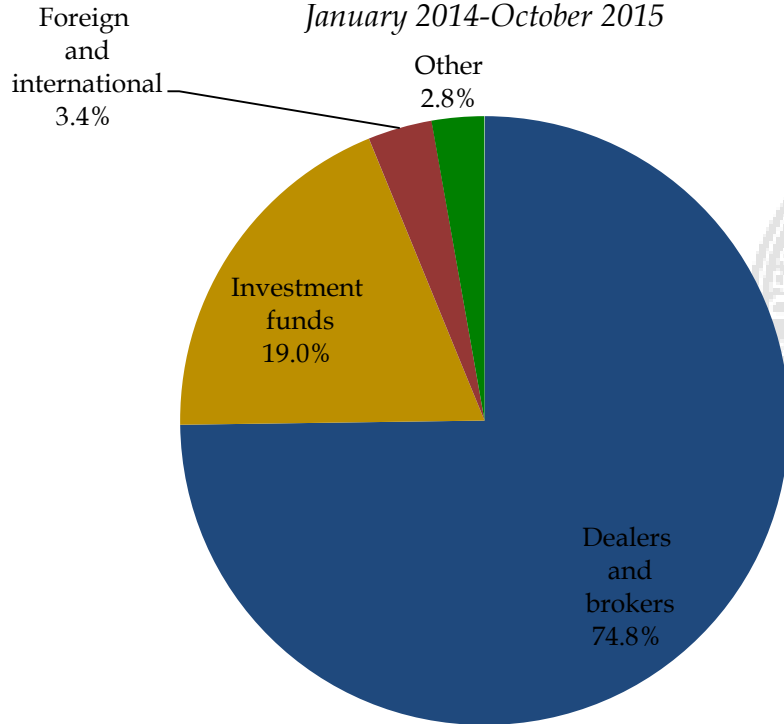
Floating Rate Note Program Review

- ▶ The introduction of the FRN, which shares important characteristics with bills, has supported Treasury's objective of maintaining a broad investor base.
- ▶ The Floating Rate Note (FRN) is a two-year final maturity security that is indexed to the weekly three-month Treasury bill auction high rate and pays interest on a quarterly basis. The index rate resets each day and features a daily minimum interest accrual rate of zero percent.
- ▶ In January of 2014, Treasury conducted its inaugural FRN auction by selling \$15 billion worth of the new security.
- ▶ Market contacts reported no operational issues and market reception to the first new Treasury debt security in over 17 years has been broadly positive.
- ▶ The FRN auction high discount margins have ranged between 6.9 and 16.8 bps since the beginning of 2015.
- ▶ Investor classes that are not traditionally invested in short-term Treasury securities such as pension and retirement funds and certain foreign and international accounts, have participated in the FRN auctions.

FRN Investor Class Auction Allotments

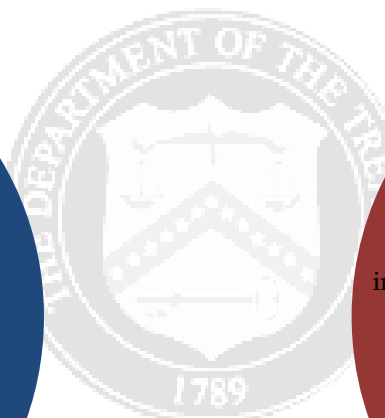
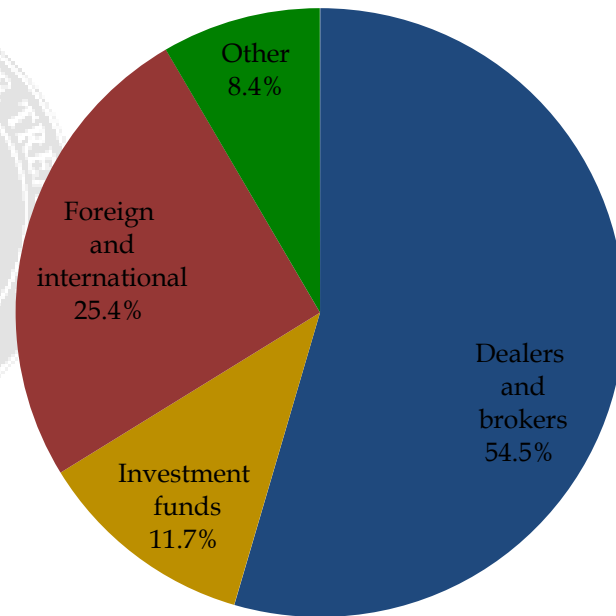
Investor Class Auction Awards: 3-Month Bill

January 2014-October 2015



Investor Class Auction Awards: 2-Year FRN

January 2014-October 2015



Quarterly Refunding Announcement Process

- ▶ Treasury staff prepare analysis summarizing recent developments in financial markets and the broader economy, updated projections of Treasury's future borrowing needs, and scenarios related to the optimal path of future issuance.
- ▶ By consolidating the quarter's qualitative and quantitative analysis into one regular publication, Treasury is able to iterate on the refunding statement in a consistent and fact-driven manner.