

Regulations enacted in the wake of financial crisis have had multiple effects on the US Treasury market. Probably the most obvious impact on the market is the scarcity of dealer and hedge fund balance sheets that has resulted from higher capital requirements and other constraints. The increasing desire for off balance sheet exposure to the Treasury market has had a direct and negative impact on Treasury's financing costs. One structural modification to the Treasury futures specifications would help to neutralize these negative effects and simultaneously make the contracts more attractive to a wider audience of potential users.

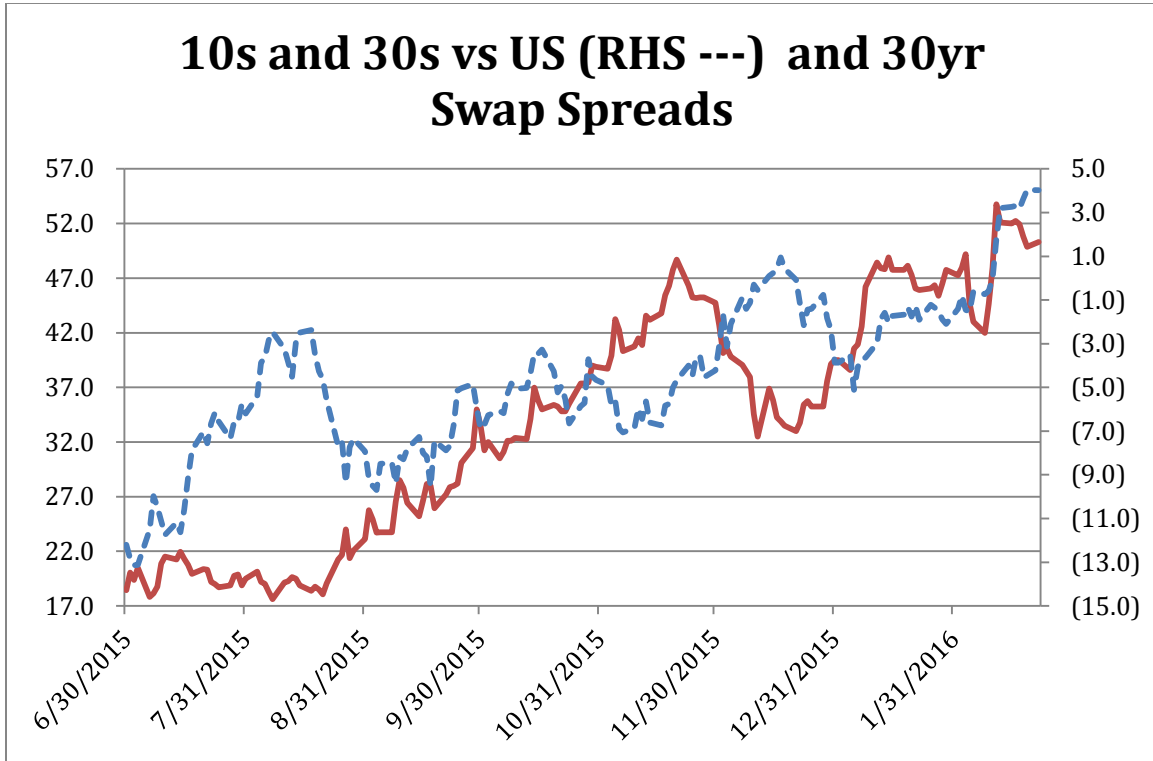
US Treasury bond futures were introduced on the Chicago Board of Trade on August 22, 1977. As a "basket" of bonds were eligible for delivery into the new contract, a "conversion factor" mechanism was devised in an attempt to "normalize" delivery prices across the range of coupons of the bonds in the basket. The normalization process involves creating conversion factors for each bond, based on a standardized conversion factor yield. As long-term bond yields were approximately 8% in 1977, the original conversion factor yield was set at 8%. **Setting a yield on the conversion factor that is close to the market ensures that a wide range of deliverable securities will be most deliverable or close to most deliverable across a range of yields, making the contract representative of the basket.**

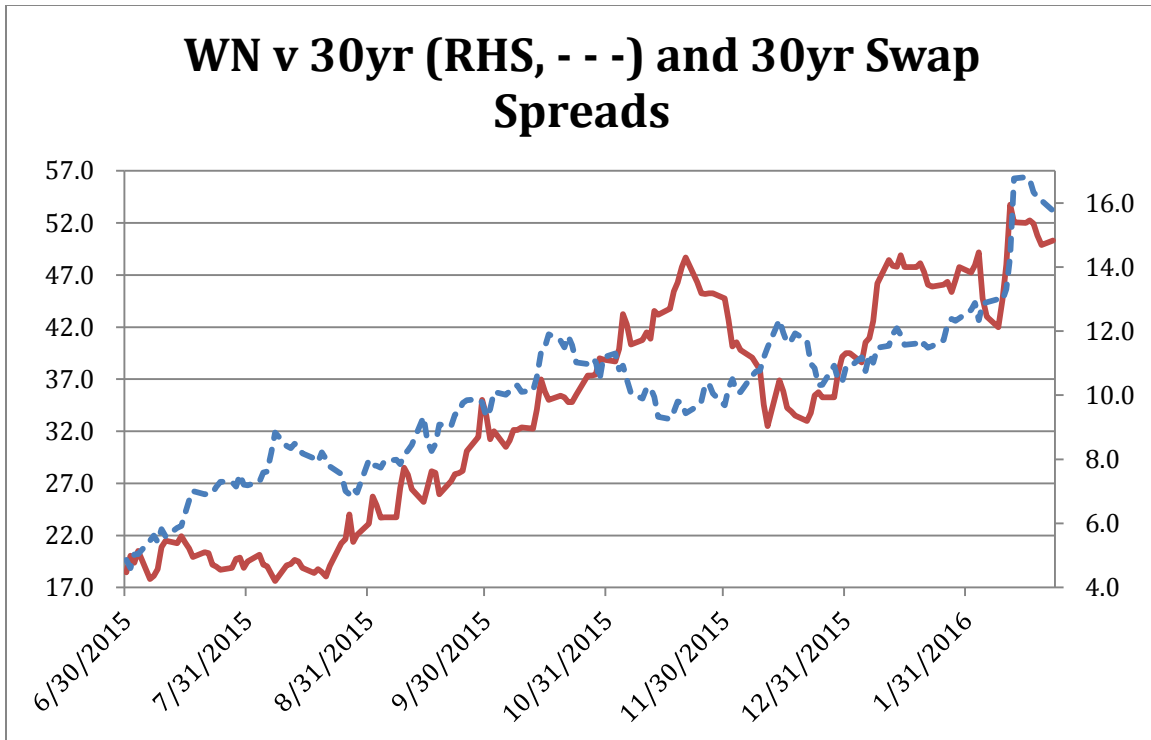
30-year Treasury issuance was callable until 1985, when the newly created and very successful STRIPS market induced high demand for bullet 30-year maturities. As a result the last callable bond was the 11 $\frac{3}{4}$ of 11/15/14-09 and the first 30-year bullet was the 11 $\frac{1}{4}$ of 2/15/15. As a result of this "maturity" gap (bond futures contract specs allow for bonds with at least 15 years to maturity **or first call date** to be eligible for delivery) it became likely that the 11 $\frac{1}{4}$'s of '15 would be the cheapest-to-deliver bond for more than 5 years. Furthermore, long term Treasury yields had fallen dramatically, which, given the delivery dynamics, had reduced the liquidity of the rest of the delivery basket relative to the 2/15s. As a result, in 1999 the Chicago Board of Trade lowered the conversion factor yield for all their US Treasury contracts (by 1999 Treasury futures contracts existed across the yield curve) from 8% to 6%.

Fast forward to today. Again there is a large maturity gap in the Treasury bond universe, as no bonds mature between 2/15/2031 and 2/15/2036, the result of Treasury's decision to eliminate the bond in October of 2001. And again rates have fallen dramatically; with 30-yr Treasuries having fallen to about 2.7% from the 4% level they reached as recently as late 2013.

Investors that need exposure to long term US interest rates have 3 viable off balance sheet alternatives: 2 long term Treasury bond futures contracts and the interest rate swaps market. The shorter of the 2 futures contracts has the ticker US and is the one discussed above. For the US contract, Treasury bonds that have 15-25 years left to maturity are eligible for delivery. The newer, longer

contract (WN) was launched in early 2010 and bonds that mature in 25 years or longer are eligible. The following 2 charts show how the futures contracts have performed vs long dated on the run Treasuries alongside 30yr interest rate swap spreads. You can see the high degree of correlation, especially in the 2nd chart.





The main takeaways are as follows:

- Treasury's cost of financing 30yr debt has increased by about 30 bp over the last 8 months relative to the swaps market
- Long dated futures contracts have outperformed 10yr and 30yr cash Treasuries by about 10-20bp over the same time period
- Clearly, long term investors are "paying up" for off balance sheet exposure

New financial regulations are just beginning to bite. There's every reason to believe these trends are likely to continue and indeed could accelerate. Fortunately, one simple step would allow the Treasury to reduce its financing costs going forward and improve the liquidity of a substantial portion of the US Treasury universe. If the CME were to once again lower the conversion factor yield associated with their contracts, the cheapest-to-deliver bond vs WN would extend to be much closer to the 30yr, allowing the Treasury to piggyback the inherent richness of futures, lower their borrowing costs substantially. Furthermore, it's not unreasonable to assume that users of long dated swaps would migrate to the WN contract, given that it would more closely track the 30yr Treasury. Such a move could further lower Treasury's cost of financing.

The current situation is clearly suboptimal. Highly regulated entities like insurance companies and pension funds are using long dated swaps

to hedge long term interest rate exposure, receiving a rate approximately 50 bp below 30yr Treasuries. Treasury should do everything they can to promote an attractive off balance sheet hedging alternative while simultaneously minimizing their financing costs. Bringing Treasury bond futures contracts up to date will go a long way toward achieving these goals. **Specifically, Treasury should work with the CME to modify the specifications of the Treasury note and bond futures complex. The 2yr (TU), 5yr (FV), 10yr (TY), 30yr (US) and Ultra 30yr (WN) are all based on 6% Treasury yields, an environment we have not seen for 15 years or so. With every Treasury trading lower than 3% I think 3% is the maximum that should be considered.** Note that the conversion factor yield was lowered from 8% to 6% in 2000 and has been untouched ever since. As only 2 contracts are listed at a time, if yields were ever to increase significantly, the conversion factor yields could be raised. Keeping the contracts “current” should appeal to a wide range of market participants.

This private sector initiative (admittedly with a nudge from the public sector) is a win for the taxpayer, a win for market liquidity and a win for system stability. Treasury should do everything in their power to affect this change.