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Fact Sheet: A Historic New 5Y TIPS Auction

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The Treasury auction of new 5Y Treasury Inflation-Protected Securities (TIPS), scheduled for Thursday, April 21, 2011, will be historic for a number of reasons. For one thing, the $14bn offering amount is the largest ever for a TIPS auction. For another, barring a massive sell-off in this market over the next day, the bond will be sold at a premium, meaning that in nominal terms, investors will be willing to pay more than its par real face value. In this note, we highlight some of the complexities and implications of this historic event.

History in the Making

The $14bn TIPS offering is the largest TIPS auction size since the program began in 1997, $2bn more than the previous record. It's no wonder. Despite Treasury's borrowing needs being near record levels,[1] the current 5Y on-the-run TIPS is trading at a negative real yield, meaning very low borrowing costs. Even with Monday's announcement that the US long-term debt outlook was lowered to "negative" by S&P, the Treasury is currently enjoying attractive funding levels in the TIPS market.

Negative real yields are hardly new to TIPS investors. The front end of the TIPS curve has routinely seen negative yields since end-2007. Currently, all maturities through January 2017 are in negative territory. Neither are negative yield TIPS auctions rare, at least not for the October reopenings of 5Y on-the-run TIPS. **But there has never been a *new issue* auction result in negative yield territory.**

Negative real yields are not new to nominal Treasury investors either. They are just harder to observe and often identified at maturity when we realize our return has been outpaced by inflation.

Uncertainty in the TIPS Market: Lack of Transparency, Information and Knowledge

Given current yields, in the absence of auction process distortions, the upcoming auction most certainly would have resulted in a negative coupon.

The unattractiveness of negative real yields was asserted to me when I called my broker to find out why they were not displaying prices for the current 5Y on-the-run TIPS and was put through to their "fixed income specialist." I was told (I already knew) that they did not display prices because yield was currently negative…he then went on to explain that therefore no one would be interested in buying it "because it's guaranteed to lose money". An average daily TIPS volume of $8bn would beg to differ. While it is possible that most of that volume represents maturities with positive real yield, it is hard to believe that all of it does. In particular, the current 3Y on-the-run TIPS didn't get to its -180bps real yield overnight; it's there because it continued to see solid demand well after its real yield dipped below zero.

[1] Goodman, Lawrence, "Treasury Maturities: The Other Fiscal Problem" – Center for Financial Stability, Inc., March 10, 2011.

Two thoughts crossed my mind as a result of this conversation. First, I worried about the extent to which his lack of understanding was representative of the TIPS market, and real return products more generally. Second, perhaps he was thinking of negative coupons, not negative real yields.

It's understandable why a negative coupon may be undesirable to investors. The concept of periodically writing checks to the Treasury is particularly unpalatable so soon after the end of tax season. In addition, it is possible that Treasury's systems just are not set up to receive periodic coupon cash flows.

In a March 1, 2011 *Federal Register* notice, Treasury amended "…paragraph (b) of 31CFR 356.20 to state that if a Treasury note or bond auction results in a yield lower than 0.125 percent, the interest rate will be set at 1/8 of one percent with the price adjusted accordingly (i.e., at a premium)", effective 1 April 2011.[2]

So Are We Paying Treasury to Borrow from Us?

At first glance, it is easy to think that the minimum coupon requirement is merely cosmetic, a way to avoid costly IT system upgrades that might be needed to accept coupon payments from investors. **It is also a way to front-load funding.** Rather than compensating Treasury each period for its willingness to pay an above-market coupon, investors are being asked to pay (deposit) a premium upfront, which will then be refunded in the form of a semi-annual 1/8% coupon payment. This is the kind of illusion that leads people to overpay on taxes during the year in order to guarantee a refund at tax-time. In the latter case, Treasury may get an interest-free loan. One might hope that in the case of the TIPS auction, the market premium will reflect the front-loading – but that is far from certain.

Deflation Revisited

Back in the day when real yields were positive, with a non-zero coupon, TIPS had a positive expected return. A new issue would be expected to sell at auction at close to par or even at a slight discount. Deflationary episodes could mean that a coupon would be less (in nominal terms) than expected but the bond was guaranteed to pay at least par at maturity. In other words, the principal of a new-issue TIPS was protected from deflation. **Imposing (or increasing) a coupon floor increases the probability that the auction will command a premium.**

The deflation floor provision has been touted as a key feature of TIPS securities, ensuring principal at maturity of at least par. The market psychology of a TIPS auction has changed with the Treasury's amendment. Now that investors are facing the possibility of a paying a premium at auction, it is tempting to conclude that the premium is similarly at risk should inflation fail to materialize and the bond pay at par.

In reality, however, the deflation floor provision hasn't changed; it's just been restructured. The premium reflects the discounted present value of future (above-market) coupon payments, not

[2] The text of the Federal Register notice can be found at:
http://www.treasurydirect.gov/instit/statreg/auctreg/FRUOCMinIntRate03012011.pdf

embedded inflation. While the introduction of a coupon floor guarantees positive nominal coupon cash flow over the life of the bond, it does not guarantee that at maturity investors will have recouped the upfront premium they will likely need to pay at auction to offset the artificially high coupon. That ultimately depends on the realization of inflation over the life of the bond.

Investors often prefer "clean" (i.e., new) issues over existing ones that already have embedded inflation accretion since the accreted principal in the latter would be at risk if deflation were to materialize. Conventional wisdom has assigned little value to the deflation floor feature at issuance; however, since historically there has rarely been a prolonged period of deflation over horizons typically associated with TIPS maturities. An examination of 5-, 10-, and 20-year rolling windows of the non-seasonally-adjusted CPI-Urban (the index on which TIPS are based) reveals that we have to go back to 1937, 1941, and 1942 to identify a deflationary spell.

Conclusions

An unprecedented supply of new TIPS will enter the market tomorrow. History aside, the reasons for participating in tomorrow's TIPS auction are unclear. The case could be made for buying at negative yields if one thinks real yields could fall further or inflation could pick up, but that could also be done in the secondary TIPS market.

To all but the most avid TIPS watchers, the upcoming auction may seem like a non-event. There are many attributes that render the TIPS market significantly more complex than nominal Treasuries. Factors such as inflation uncertainty, the optionality embedded in the deflation floor, and tax considerations associated with principal accretion are unique to the TIPS arena. But the mechanics of this particular auction have been made even more complex due to Treasury's amendment that introduces additional uncertainty to a market that already is not well-understood. Placing a floor on the coupon does not change the reality that real yields are negative. As with nominal bonds, it just makes that reality harder to observe. Given their current funding requirements, further opacity is not the direction the Treasury should be heading.

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