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# 30-Year Treasury—Trick or Treat?

*Editor's Note: The following article appeared in the November 2001 issue of the Ryan Labs, Inc. newsletter. It is reprinted with permission.*

*Note from the authors: As the leaders in liability index management, we pay close attention to matters that may affect the long-term prosperity of our country. In the closing stages of October, the Treasury Department announced the elimination of Thirty-Year Treasury Auction Issue. We believe this announcement will have major ramifications on liabilities throughout America.*

On October 31, 2001, a day which will live in infamy, Undersecretary of the Treasury for Domestic Finance, Peter R. Fisher, announced the suspension of the 30-year Treasury bond auctions. The repercussions of this action will ripple through our financial economy. Here is a list of potential problems:

## Pensions

Currently, pension contributions are governed by IRS 404(a). This rule is based upon discounting pension liabilities using a weighted average of the 30-year Treasury over the last four calendar years. GATT legislation for pension plan terminations is based upon the average 30-year Treasury rate a month before the end of the fiscal year. PBGC premiums for under-funded plans is based upon valuing the current liability calculation at 85% of the 30-year Treasury as a discount rate. It remains to be seen how all these bodies react so soon to their year-end calculation date. Currently, with the recent supply driven rally, contributions and pension liabilities will be going up. This could be costly especially when viewed that these funds are not recoverable if rates rise after the date of calculation.

## State Lotteries

Most State Lotteries price their liabilities off the Treasury STRIP curve. Moreover, most defease their liabilities with Treasury STRIPS. Since the majority of STRIPS come from stripping the long bond, it remains to be seen how defeasement will work here in time. Given the immediate supply driven rally on long Treasuries, lotteries are hit with higher defeasement cost. If maturities of these games have to be shortened, then costs go up even more. For most states, the lottery is one of their largest revenue sources.

## Agencies

By law, government agencies can only buy Treasury securities (non-marketable). Social Security has become the major buyer. The growth rate of such non-marketable purchases has accelerated to the point that it will soon be the largest segment of Treasury debt. Much of these purchases are long maturities either by formula or to match a liability schedule:

**(Trillions)**

| **Fiscal** | **Marketable** | **Non-Marketable** |
|---|---|---|
| 1996 | 3.418 | 1.802 |
| 1997 | 3.439 | 1.967 |
| 1998 | 3.331 | 2.187 |
| 1999 | 3.233 | 2.414 |
| 2000 | 2.992 | 2.629 |
| 1Q/2001 | 2.966 | 2.651 |

## Bond Market

There is no question that the 30-year was a key issue for the bond market. It was usually the base rate for pricing other long bonds. In international markets it is the benchmark for long durations. The bond market works like a solar system where most bonds gravitate around one key issue in a yield-spread orbit. Spreads may change but wherever the key issue (sun) goes in interest rate direction, so goes the entire solar system. A lot of bonds will now trade in outer space looking for direction. America had one of the very few continuous long bond issuances. The world was weaned on this security. We certainly don't want to lose this level of market acceptance.

The volume of trades done with the 30-year Treasury is a testimony to its usefulness as it was one of the most widely traded securities in the world. Most traders used the 30-year Treasury futures to hedge their long position(s). This contract is now in jeopardy. Traders are now at more risk if they cannot effectively hedge.

As a result, less efficient pricing and trading now occurs in the long end. Confusion reigns here. Treasury brokers and dealers hit hard by the WTC crisis must now feel that financial terrorists have hit the bond market.

### Swap Curve

The swap curve has become a tool for hedging positions given the loss of some of the key Treasury auction maturities. Investors find the swap curve more difficult and confusing as most of their risk/reward analysis is Treasury based. For an in-depth review of the Swap Curve, please call our sales people (212-635-2300 ext. 233 and 241) for our research article "The Swap Curve (Pros and Cons)".

### Prudent Person Rule

Supposedly, the prudent investor should invest to match his/her investment horizon or needs. Treasury financing will continue long-term if not in perpetuity. The recent economic slowdown, 10-year tax cut and the Social Security problems of the future tend to insure this reality. In fact, the Social Security letter to all beneficiaries in September 2000 stated clearly that the system will go into a deficit mode beginning 2015 and will be 28% under-funded by 2037. If you have long-term financing needs, finance them with long-term bonds, especially when interest rates are historically low. The mismatching of assets versus liabilities has very visible scars in America (i.e. S&L crisis), but, apparently, a short memory.

### Reinvestment Risk

Financing long-term needs through short maturities has high reinvestment risk. The rollover of the two-year auction 14x over the next 30 years is full of speculation. The yield curve was just inverse for most of the year 2000. How soon we forget. With the 30-year yield at the lowest yield level since June 1967, most borrowers would lock up such rates for as much time and volume as they could digest. Even individuals are going through major mortgage refinancings to lock up these attractive rates as long-term fixed mortgages. According to the Mortgage Bankers Association of America (MBAA) mortgage applications are at the highest level in history with refinancings accounting for 75% of these applications.

### Liquidity

Liquidity is like the lubrication between gears, it makes the engine work smoother with less friction. The financial engine of America squeaks. Losing the one, three, four, seven and now 30-year Treasury auctions over a short time frame is causing friction. The Corporate bond market was in a pricing disarray in the late 1990s because of this lack of a base rate. Futures and options markets are surely hurt. The security markets thrive on volume and liquidity. It is the glue that keeps it together. Liquidity crises are not a pretty sight and should be avoided at all cost.

### Intrinsic Value

The true economic or intrinsic value of any investment is versus the Treasury with the same maturity or duration. This is the best measurement of Alpha or the value added. Without a base yield curve of comparison (baseline portfolio), relative value becomes vague and leads to higher risk strategies. If you underperformed the Treasury yield curve, you knew you did not add any value. That calculation of relative value is now more suspect. You may have more risk than you know, since the risk-free asset is missing in action.

### Solutions

America needs a well defined yield curve with maturities that extend far out into the future. The pricing of most fixed income securities is dependent upon it. The defeasement and pricing of liabilities is dependent upon it. The liquidity of the bond market is dependent upon it.

Utopia is a zero-coupon yield curve where bonds can be effectively priced on a duration basis and liability-driven objectives can be efficiently matched.

The 30-year Treasury is critical here allowing for 60 distinct zero-coupon maturities. Unless the Treasury is willing to issue STRIPS as a shelf registration where buyers can get almost any maturity they need, the 30-year Treasury is the only vehicle available to create such a wide spectrum of maturities. This provides a very well defined yield curve that is easily priced and purchasable.

Without the 30-year auction, in time, the maturity spectrum of STRIPS is cut by 66% assuming the 10-year auction is the longest available Treasury to be stripped. We currently have $171 billion in STRIPS. For a program started in March 1985, this has enjoyed great demand.

The Treasury yield curve is sacred ground. Most financial models have some basis built on this ground. To remove Treasury auctions creates very unstable footings for financial practitioners. We need our financial institutions supported at all costs. The economic viability of America may be dependent upon it.

***God Bless the Treasury Yield Curve !***

### Designation Correction

Dave Gilliland's credentials were listed incorrectly from the last issue. In the July 2001 issue of *R&R* it said on page 34 that David Gilliland was a consulting actuary and FSA MAA when he is actually a software developer and a FSA FCIA CFA. We apologize for the misprint.