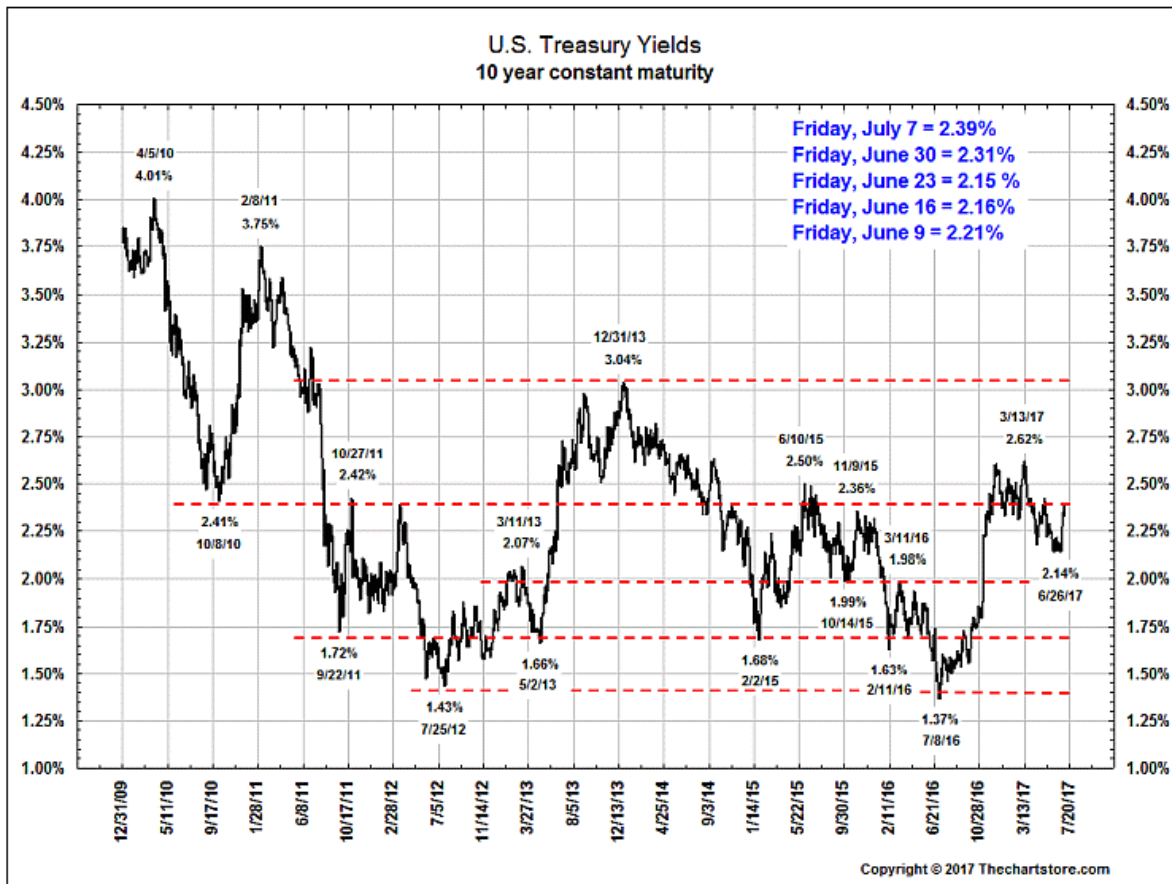


The Investor's Edge

Fed's \$4.5 Trillion Balance Sheet

Background & Outlook

As shown in the chart below, the ten year Treasury yield fell from the recent 2.62% high in mid-March to a low of 2.14% in late June before ticking higher to close the quarter at 2.31%. Sluggish GDP growth in the first quarter (initially reported at 0.70% but subsequently revised to 1.40%) coupled with lower than expected April and May employment gains (subsequently revised higher) and modest inflation set the stage for declining yields during most of the period. The municipal market followed the same pattern with ten year prime yields falling from 2.26% at the start of the period to 1.85% in late June and closing the quarter at 2.00%.

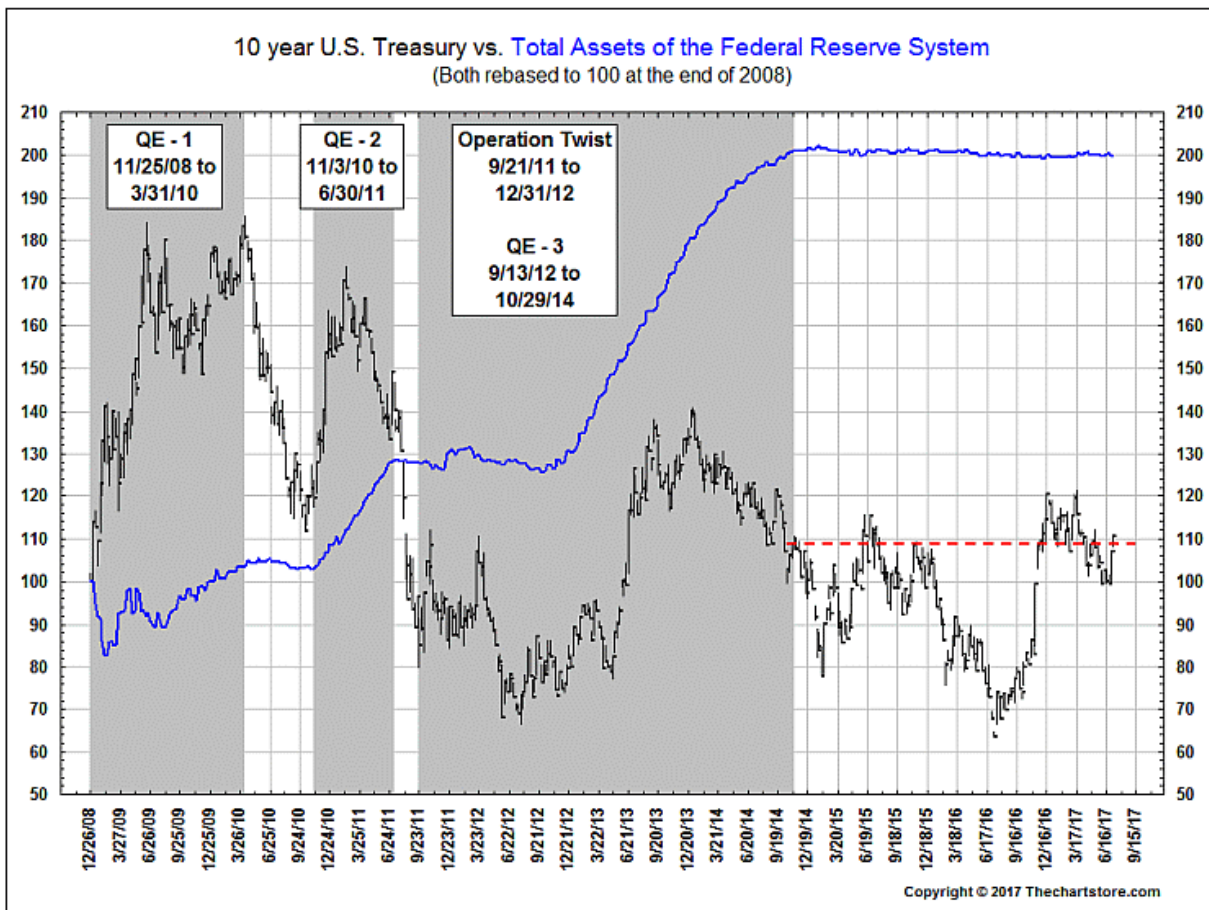


Federal Reserve tightening accompanied by the European Central Bank paring their monetary ease appear to have been catalysts for the late period uptick in rates. A mid-June quarter point increase in the Federal Funds rate that brought the targeted range to 1.00% to 1.25% followed previous moves in December and March. An additional move later this year is on the Fed's stated agenda, but dependent on economic growth and inflation moving toward their 2.0% target. In addition, Chairperson Yellen has stated that they are on track to begin reducing the size of central bank's \$4.5 trillion balance sheet by not reinvesting proceeds from maturing securities. Initially \$6 billion

Treasuries and \$4 billion mortgage backed securities would roll off each month starting this fall and increase gradually to \$50 billion monthly. Given the size of the Fed's balance sheet that ballooned during three quantitative easing programs, the realignment process will be prolonged and stretch over several years if not interrupted by an economic downturn and/or lower than desired inflation.

How much impact will the Fed have on interest rates and the shape of the yield curve going forward? Higher short rates will likely cause additional yield curve flattening as has been evident since the Fed made their first tightening move in late 2015. In mid-2015, before the first increase in the Fed Funds rate from near zero, the one year Treasury traded below 0.25% and the one to ten year yield spread was near 200 basis points compared to the current 117 basis points.

The more important question is the effect of Fed action on longer rates. The near term impact is likely to be modest. The following chart, courtesy of The Chart Store, is insightful showing the ten year Treasury yield that is augmented with the quantitative easing periods and the growth in the Fed's balance sheet from the end of 2008 to the present. The first QE period began in the latter part of 2008 and by year-end 2008 the Fed's balance sheet had grown to \$2.24 trillion. Subsequent to the decline in rates in late 2011 the ten year Treasury has traded in a broad 1.37% to 3.04% range with limited correlation to the growth and size of the central bank's balance sheet. The economic outlook and inflation expectations have been more important factors in determining yield levels and will likely continue to drive interest rates over the foreseeable horizon. Near term we expect a continuation of moderate 2+% GDP growth and limited inflation which should contain upward moves in longer interest rates. In addition, given geopolitical uncertainties (N. Korea, Special Counsel Robert Muller's investigation, Russian relations, Mideast, etc.) we anticipate periodic bouts of investor uneasiness that prompt flights to quality that contain rate pressures.



Despite our view of a reasonably docile rate environment, we are maintaining below neutral portfolio duration targets. Low nominal interest rates and the potential for increased volatility warrant a cautious posture.

Limited Municipal Supply

Tax-exempt volume totaled \$173 billion in the first half of the year, a 14% decline from 2016. It appears that budget constraints from limited growth in tax collections and the burden of meeting actuarially required pension fund payments are impacting appetites for capital projects. In addition, uncertainty over potential Washington legislation – health care reform that could limit federal Medicaid payments to states, the impact of possible tax law changes, whether an infrastructure revitalization program will be initiated - enhance uncertainty. It appears that limited new issue volume will continue in the second half.

To some extent new issue volume is being impacted by direct bank lending to municipalities that is estimated to be in the area of \$18 to \$20 billion annually. Avoiding underwriting costs and loan structure flexibility are advantages offered by bank financing. Most loans have relatively short maturities of five year or less. Whether banks continue to play a significant role in this segment of municipal finance remains to be seen. Their ultimate staying power will be driven by banks' ability to deduct interest on municipal loans, corporate tax rates and the spread between tax-exempt and taxable yields.

Reduced new issue supply in an environment of strong demand has lowered tax-exempt to Treasury yield ratios. The five year prime municipal to Treasury yield ratio is currently 71.4% and the ten year ratio is a relatively low 86.5%. Quality spreads are also somewhat narrow with AAA to BBB spreads at 85 to 90 basis points along the yield curve beyond five years. In the not too distant past AAA-BBB spreads approached 200 basis points.

Ladders vs. Active Bond Management

Recent articles have once again lauded the benefit of laddered bond portfolio management using an array of one to ten year, one to fifteen year, five to fifteen year, etc. maturity arrangements with equal investments in each maturity. Proceeds from bonds that mature or are sold when maturities fall to the bottom of the ladder are reinvested in higher yielding securities at the long end of the maturity spectrum. In a static yield environment higher yielding longer maturity bonds will increase in value as their maturities shorten and they “roll down” the yield curve.

Firms marketing these products tend to accept relatively small accounts. A \$150,000 ten year laddered portfolio would have \$15,000 investments in each year. Should a client need to withdraw funds, the sale of an odd lot holding (less than at least \$100,000 par) would very likely incur significant transaction costs that severely impact portfolio returns.

Ladder structures are volatile. An equally weighted one to ten year maturity ladder would have a portfolio duration of about 4.9 years compared to the current 3.6 year duration target in C.W. Henderson & Associates managed accounts. A five to fifteen year ladder, assuming all bonds with maturities beyond ten years have ten year par calls, would have a duration of about 7.4 years – more than double the CWH&A target.

Credit quality can also be an issue. Attempts to enhance yields often result in the use of lower quality securities in laddered portfolios. Bonds purchased with ten or fifteen year maturities and locked in for these extended periods of time can experience credit deterioration and rating downgrades.

Beyond volatility and credit concerns, laddered portfolios lack the potential to take advantage of yield disparities between credits, market sectors and yield curve segments. Active management coupled with the use of securities with unique characteristics provide the potential to add significant incremental returns. Laddered portfolios also forego the potential to harvest tax losses that occur during periods of rising rates. These losses can provide significant benefit by offsetting capital gains in clients' overall portfolios and add significantly to tax-adjusted returns.

Illinois Has a Budget

After a two year standoff, the Illinois legislature overrode the Governor's veto to enact a permanent personal income tax increase that raises the levy from 3.50% to 4.95% and the corporate tax from 5.75% to 7.0%. The expected \$5 billion annual revenue enhancement will hopefully bring receipts closer to matching the State's \$36 billion yearly expenditures.

However, with a \$15 billion backlog of bills and huge unfunded pension obligations estimated to total anywhere from \$126 to \$250 billion depending on assumptions, the state is far from resolving its problems without fundamental reforms. The State's credit is rated just above non-investment grade with the threat of a Moody's downgrade to below investment grade despite the tax increase.

Fiduciary Rule

The Labor Department activated the long pending Fiduciary Rule requiring investment advisers to put client interests above their own and act in clients' best interests when providing advice in regard to retirement accounts. Advisers must act with loyalty and reasonable care to assure that actions taken advantage their clients.

A fiduciary mandate does not yet apply to non-retirement assets but the concept should be foundational to any investment firm managing client assets and is basic to the investment philosophy that C.W. Henderson & Associates adheres to. Compliance with the Firm's Code of Ethics to prevent conflicts of interest coupled with equitable allocation of investment opportunities, risk control to preserve wealth, minimizing trading expenses, etc. are all critical components of the Firm's investment process as we work to meet client objectives and build long term relationships.

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