

Pension Solutions' Monitor

July 2017



Market Update Overview

Pension funding ratios increased over the month of July due to a strong equity market and minimal changes in pension discount rates. Both domestic and international equity markets returned another very strong month. Additionally, the increase in interest rates were offset by the tightening of credit spreads. We estimate that the average plan's funding ratio increased 1.1% over the month of July.

Equities

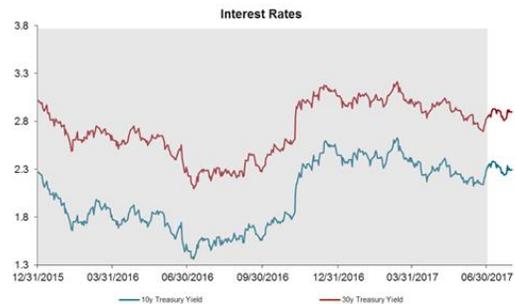
The S&P 500 Total Return index continued to reach all-time highs, returning 2.1% over the month. The rally was led by Tech and Telecom, with all sectors finishing in the green. Over the month of July, equities enjoyed record low volatility as sentiment was buoyed by continued consumer confidence rooted in a strong job market, record headline corporate earnings, signals from the Fed that they will increase rates at a slower pace, and ongoing belief towards beneficial tax legislation. International equities rose by 3.7% as ongoing weakness in the US Dollar positively impacted returns for US-based investors.



The rally in equities has had a positive impact on pension funding ratios over the month.

Interest rates

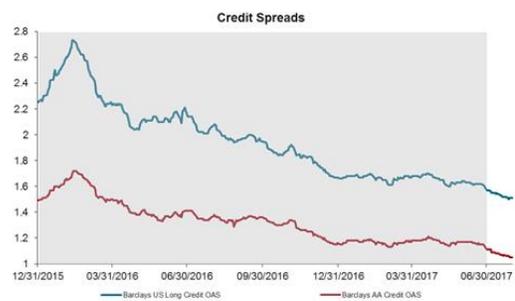
The interest rate market, similar to the equity market, experienced record low volatility. The Treasury curve steepened over the month as the Fed turned slightly dovish on lower than expected inflation numbers and a desire to begin balance sheet tapering. As of August 1st, 2017, the market has priced in the odds of a rate hike at ~40% by the end of the year, down from a few months ago.



The 10-year rates fell 1 basis point and the 30-year rates increased 7 basis points to 2.29 and 2.90, respectively. Rates have had a positive impact on pension funding ratios over the month.

Credit

Credit spreads continued to tighten over July due to a variety of factors. Both the summer slowdown in supply and strength of foreign buying throughout the summer could have been the main drivers, but overall the grind is a bit surprising given the general theme of lower government yields. It's also a bit surprising given the unwind of Trump-reflation trades and forthcoming balance sheet normalization from the Fed. In short, the market is back to the tightest levels of this credit cycle with less accommodative central bank policy and less attractive fundamentals. Amidst these observations, technicals continue to be very strong.



Both Barclays US Long Credit OAS and AA Credit OAS tightened 6 basis points over July. Credit spreads had a negative impact on pension funding ratios over the month.



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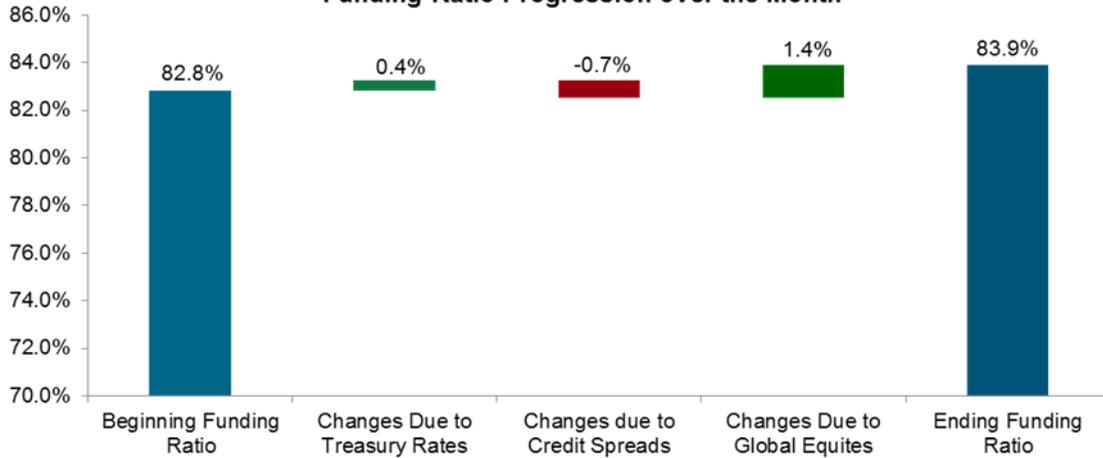
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Funding Status Monitor

LGIMA estimates that pension funding ratios increased 1.1% over the month of July, with gains driven mainly by a strong month in the global equity markets and minimal changes to pension discount rates¹. LGIMA estimates Treasury rates increased 4 basis points while credit spreads tightened 6 basis points, resulting in the discount rate falling 2 basis points. Overall, liabilities for the average plan were up 0.6%, while plan assets with a traditional "60/40" asset allocation² increased by 1.9%³.

Funding Ratio Progression over the Month



1: Discount rates based on a blend of the Bank of America Merrill Lynch Average US Pension Plan AAA-A and Bank of America Merrill Lynch Mature US Pension Plan AAA-A discount curves

2: For the average plan LGIMA assumes a 60% allocation to MSCI AC World and a 40% allocation to Barclays Aggregate.

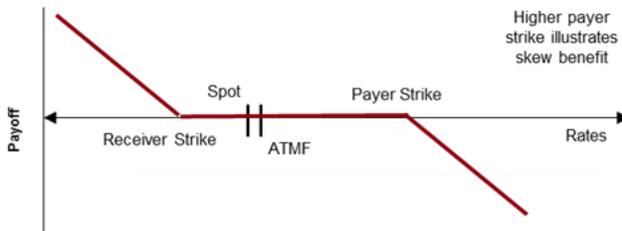
3: Equity allocation is assumed to be in global equities

Strategies to benefit from recent market moves

Swaption Collar

- Implied interest rate volatility continues to move lower, however corporate defined benefit plans can take advantage of the current skew environment
- Plans can take advantage of the skew by selling high strike payer swaptions and utilize premium to purchase low strike receiver swaptions
- Should rates rise from current levels plans will be legged into higher interest rate exposure and will be protected should rates fall from current levels

Illustrative pay-off diagram



Costless Hedge: 1x2 Put Spread

- Plans could gain significant downside protection while leveraging current market dynamics by using a 1x2 put spread
- This costless strategy simultaneously buys 1x 95% put and sells 2x 85% puts in the one year maturity
- This strategy offers protection given a 5% fall while not posting a loss (other than premium) until a 25% fall

Illustrative pay-off diagram



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