

Pension Solutions' Monitor

August 2017



Market Update Overview

August saw pension funding ratios decrease over the month. With a slowing equity market and substantial fall in interest rates overshadowing a widening in credit spreads, pension discount rates ultimately fell. As plan liabilities grew at a faster rate than plan assets, we estimate that the average plan's funding ratio decreased 1.0% during the month of August.

Equities

The S&P 500 Total Return index touched another record-high, returning 0.3% over the month. The light rally was led by Tech and Utilities while Energy and Financials lagged behind. Over the month of August, equities exhibited near record low volatility as sentiment was buoyed by continued consumer confidence rooted in a strong job market, renewed hope in corporate tax reform, and signals from the Fed that they will hold off on another rate hike. International equities also continued an excellent year, posting a return of 0.6% as sustained, though moderate, weakness in the US Dollar positively impacted returns for US-based investors.

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

Interest rates

Treasuries rallied over the month of August, as geopolitical tension rose and inflation/jobs data continues to halt the Fed's rate hikes. However, investors will still keep an eye on the Fed, as they are expected to announce their plans to reduce the balance sheet in the coming weeks. As of September 1st, 2017, the market has priced in the odds of a rate hike at ~40% by year-end.

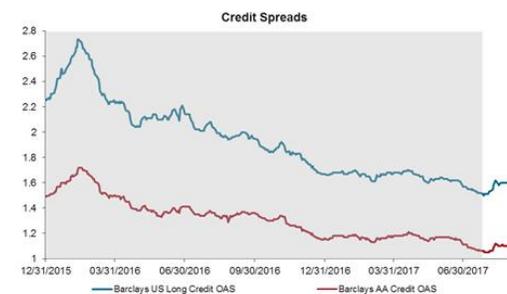
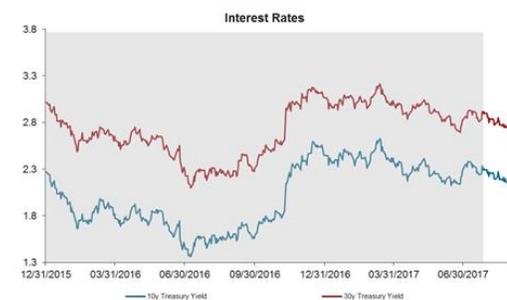
Interest rate volatility spiked on North Korea fears, generally grinding higher in August, but we still remain near multi-year lows. While volatility remains muted, a potential catalyst could include a US government shut down over budget concerns.

The 10-year rates fell 18 basis points and the 30-year rates decreased 17 basis points to 2.12 and 2.73, respectively. Rates have had a negative impact on pension funding ratios over the month.

Credit

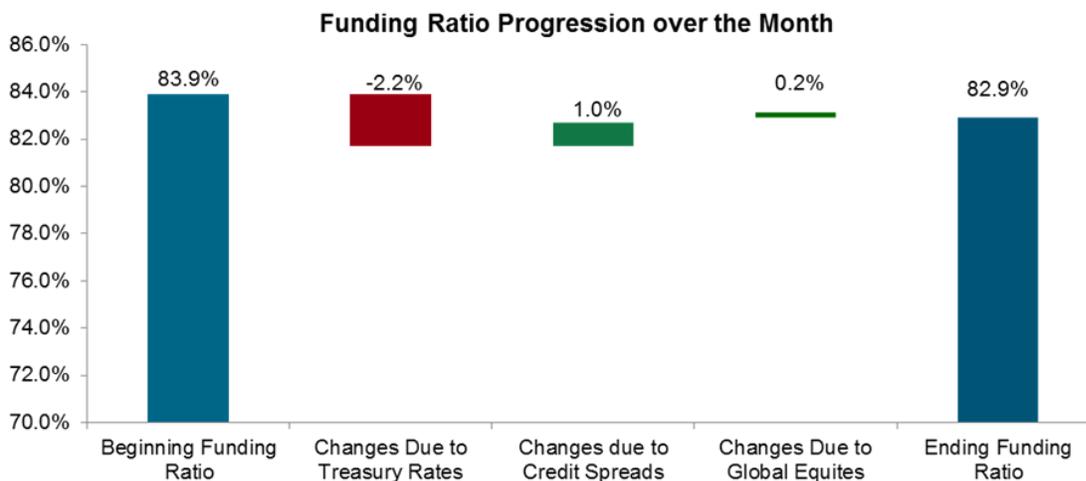
Credit underperformed in an abnormally active August due to a variety of factors. In the first two weeks of the month, an unusually large amount of higher-beta, long duration supply came to the market. Supply indigestion combined with rising geopolitical tensions, both domestically and overseas, exacerbated credit spread widening and nearly wiped out investment grade credit gains for the year. Credit markets have since retraced ~1/3 of the spread widening on the back of an easing of geopolitical tensions and the typical late August slowdown in issuance. In September, the markets will be focused on the Fed's expected announcement of bond purchase tapering, along with the debt ceiling, government budget, and tax reform developments.

The Barclays US Long Credit OAS and AA Credit OAS widened 10 basis points and 6 basis points, respectively. Overall, credit spreads had a positive impact on pension funding ratios over the month.



Funding Status Monitor

LGIMA estimates that pension funding ratios decreased 1.0% over the month of August, with losses driven mainly by a fall in rates and only slight gains in the equity market. LGIMA estimates Treasury rates decreased 19 basis points while credit spreads widened 8 basis points, resulting in the discount rate¹ falling 11 basis points. Overall, liabilities for the average plan were up 1.8%, while plan assets with a traditional "60/40" asset allocation² increased by 0.6%.



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

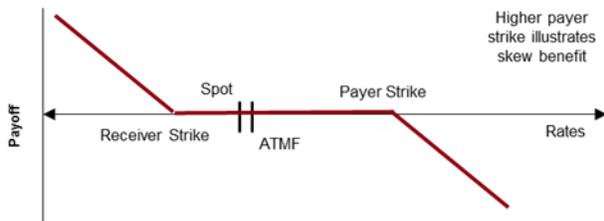
2: For the average plan LGIMA assumes a 60% allocation to MSCI AC World and a 40% allocation to Barclays Aggregate.

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 Risk Reversal

- Plans could gain upside exposure while maintaining downside protection
- This costless strategy simultaneously sells a 93% put and buys a 103% call in the 6-month maturity
- This strategy offers protection up to a 7% fall while gaining market exposure past a 3% rally

Illustrative pay-off diagram



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