LGIMA Pension Solutions' Monitor

Market Update

Overview

The month of January has positively affected pension funding ratios, primarily driven by gains in the equity markets. Rates were largely unchanged, as uncertainty around President Trump's policy decisions persists. Credit spreads widened modestly over the month. We estimate that the average plan's funding ratio increased 1.3% over the month of January.

Equities

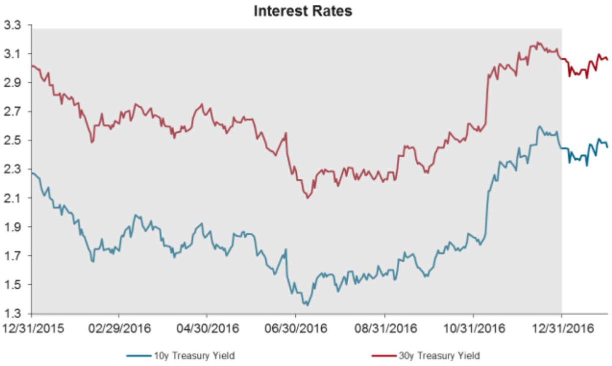
The S&P 500 TR Index made record highs during January, rallying 1.90% over the month. Markets have continued to react positively to expectations of spending and policy changes by the new administration. Technology and consumer discretionary shares outperformed, while energy lagged. Overall, the index composition has observed a wide level of dispersion between sectors as markets digest potential impact of unclear policy and regulatory changes, a dynamic not fully observable from the index levels themselves. International equities also rose, posting a 1.03% return (in local currency terms), whereas in USD terms they outperformed with a 3.55% gain driven by softening in the dollar.

The rally in US and global equities has positively affected pension funding ratios.

Interest Rates

Rates traded sideways during a month where the markets seemed relatively quiet compared to the significant selloffs we saw post-election. The 30-year Treasury rate traded in a 2.93-3.10 range before closing out the month at 3.06, basically unchanged from the year end close. The front end was no different, with 5-year Treasuries trading in a 1.82-1.98 range and ending the month at 1.92. Despite continued political uncertainty, the Fed has continued to lean more hawkish, possibly due to wage inflation data surprising to the upside (which had been a point of concern in the December minutes).

Treasury rates had only a minor impact on pension funding ratios over the month.

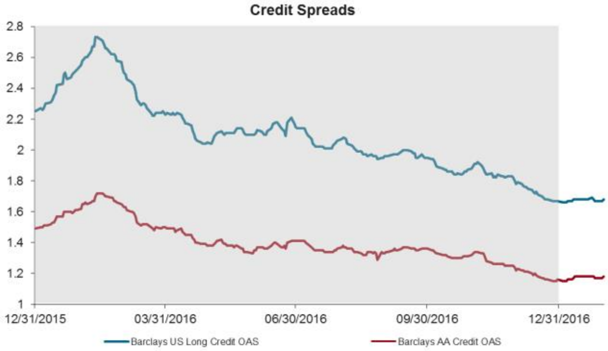


Credit

Investment grade spreads largely moved sideways during the month of January after rallying throughout December 2016. A surge in issuance is most likely responsible for the loss of momentum. Issuance during the month exceeded last year by more than 40%, and ranks as the second heaviest supply month on record at $170bn. Most forecasters expected issuance to contract during 2017 relative to a year ago, but January's number suggests the trend toward ever-greater issuance may continue.

After outperforming during the second half of 2016, Bloomberg Barclays Long US Credit failed to outperform Intermediate Credit in January 2017. With 30-year US Treasury yields essentially unchanged and a number of companies opting to issue sizable longer dated bonds, credit curves were marginally steeper by month end. Bloomberg Barclays Long US Credit finished the month 0.5 basis points wider while Intermediate Credit was 3 basis points tighter.

Wider credit spreads had a small positive impact on pension funding ratios over the month.



Legal & General Investment Management America, Inc.
71 South Wacker Drive, Suite 800
Chicago, IL 60606
www.lgima.com

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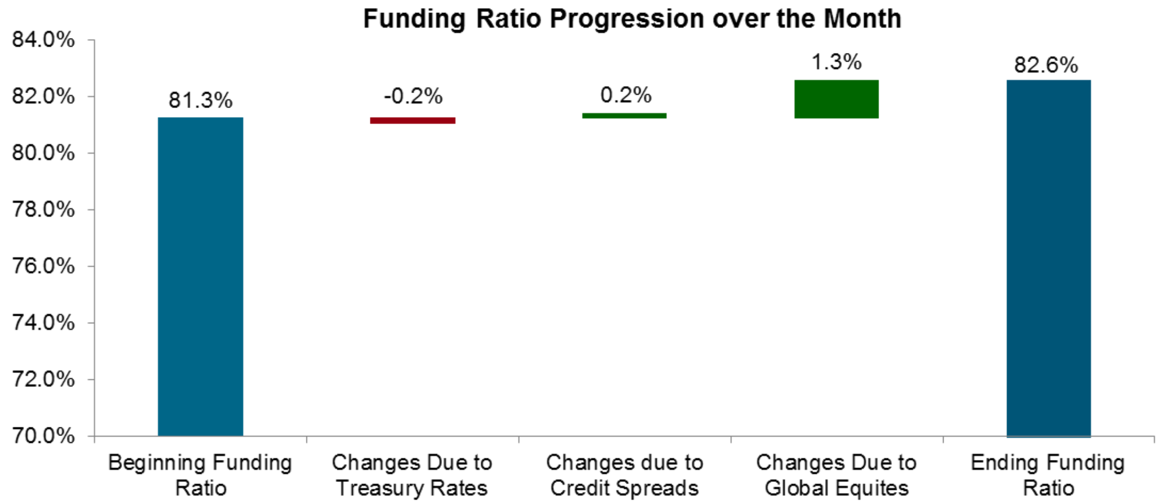
Funding Status Monitor

LGIMA estimates that pension funding ratios increased 1.3% since the end of December 2016 driven mainly by a rally in global equity markets of 2.8%. LGIMA estimates plan discount rates rose only 2 basis points, as the change in Treasury rates and credit spreads had little impact on the liability value[1]. Overall, liabilities for the average plan were up 0.1%, while plan assets with a traditional "60/40" asset allocation[2] increased by 1.7%[3].



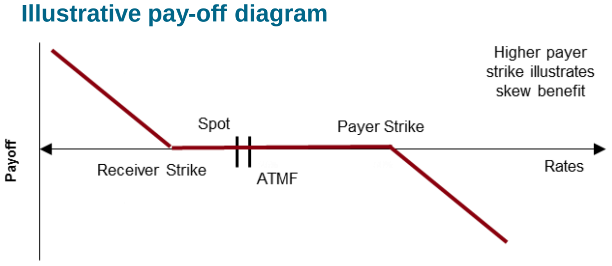
1: Discount rates based on a blend of the Bank of America Merrill Lynch Average US Pension Plan AAA-A and Bank of America Merrill Lynch Mature US Pension Plan AAA-A discount curves
2: For the average plan LGIMA assumes a 60% allocation to MSCI AC World and a 40% allocation to Barclays Aggregate.
3: Equity allocation is assumed to be in global equities

Strategies to benefit from recent market moves

Risk Reversal

- 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



Call option strategies to manage funded status

- Plans can replace a portion of existing cash equity portfolio allocation with long calls, retaining upside of owning equities without downside exposure
- By buying a call and simultaneously selling two (further) OTM calls, pensions can implement costless equity exposure by selling away potentially unnecessary upside
  - Example: Buy 1 Jun17 2325 Call and sell 2 June 2400 Calls

Return profile of long equity and call spread

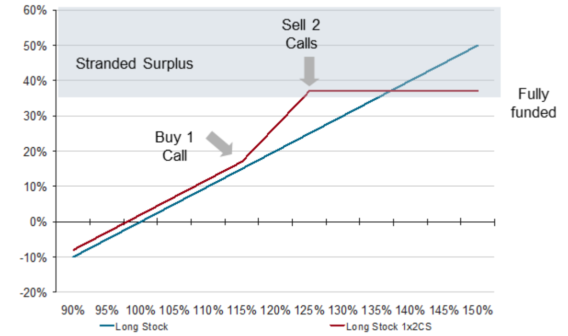


Chart depicted for illustrative purposes only.

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