LGIMA's Pension Solutions' Monitor

November 2018 Market Update

Overview

Pension funding ratios slightly increased throughout the month of November, primarily driven by widening credit spreads and positive equity returns. These gains were somewhat offset by a decrease in Treasury rates. We estimate that the average plan's funding ratio increased 0.7% to 90.3% during the month of November.

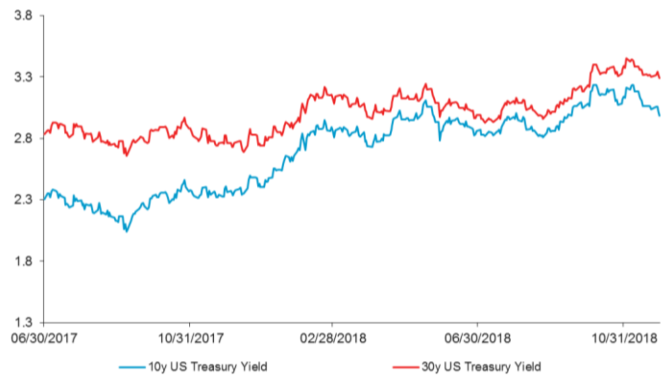
Global equities

Source: Bloomberg as of 11/30/2018.

November provided significant volatility in the equity markets, ultimately closing the month with gains across the major US indices and minor losses in Europe and Latin America. Negative price action in the US was fueled by uncertainty surrounding the US midterm elections, guidance about future earnings being constrained by higher costs, risk of China– US trade war, and slowing global growth as central banks continue to pare back stimulus. Alternatively, the positive price action was led by consumer confidence remaining at a high level, largely positive economic data, new trade agreements with South Korea, Canada, and Mexico, and Fed Chair Powell stating that rates are "just below" the neutral level, implying that rate hikes may slow.

In Europe, the ECB is expected to end its quantitative easing program but, given low inflation data and disappointing consumer confidence levels, investors remain skeptical that the ECB will be able to raise interest rates in 2019. Japan saw strong gains over the month after recovering from a number of natural disasters, shedding light on a more positive outlook rooted in a number of government reconstruction programs.

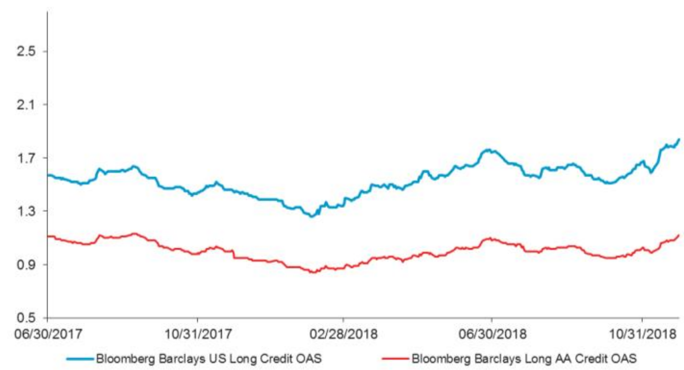
Interest rates



Source: Bloomberg as of 11/30/2018.

The US 30-year rate hit a new cycle high of 3.46% on November 2, fueled by prospects of a trade deal being reached between the US and China, nonfarm payrolls surprising with a +50k above consensus print, and average hourly earnings coming in at a 3.1% year-over-year growth. The highly anticipated midterm elections were essentially a non-event for the rates market, with the Democrats taking the House while the Republicans maintained control of the Senate, which was the outcome most had predicted. The FOMC meeting on November 8 also failed to have any surprises for the rates market. The statement noted that while business investment had "moderated", employment and consumer spending remained strong. Mid-month rates rallied and the 30-year rate moved to 3.30 as uncertainty around the Brexit deal—including several UK cabinet resignations—added to the turmoil already in the markets from the weakening credit backdrop. Fed speakers in November struck a bit of a dovish tone. Chair Powell acknowledged slowing global growth while Clarida and Kaplan went a step further and implied the Fed needs to take this slowdown into account when making policy decisions. Despite these comments, the market is still pricing in a nearly 80% probability of another hike at the FOMC meeting in December.

Credit



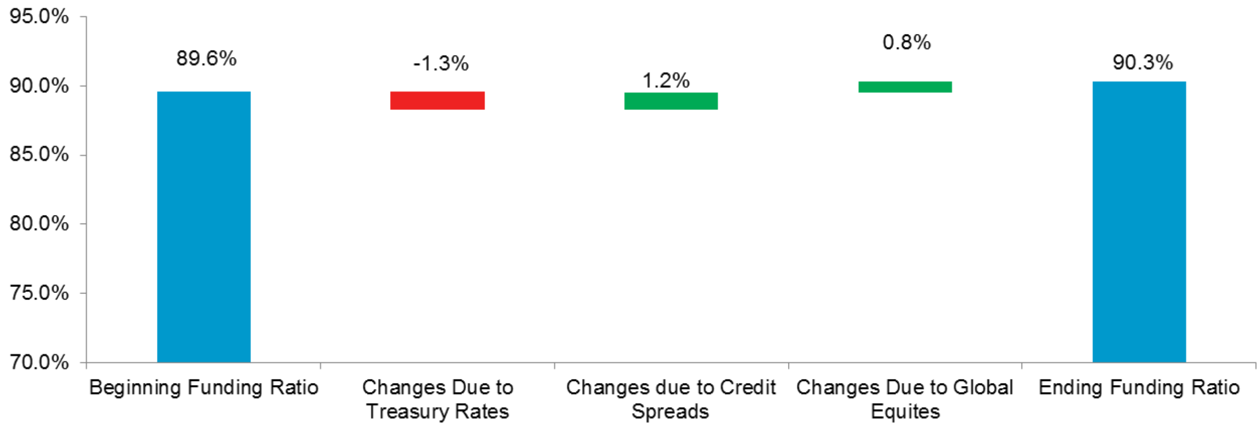
Source: Bloomberg as of 11/30/2018.

For those anticipating the seasonal grind tighter into year-end, the waiting looks set to continue for at least one more month. November started out well enough with the Bloomberg Barclays US Long Duration index tightening 5 basis points during the first full week, but credit ran into trouble almost immediately afterward. Veterans' Day marked the beginning of the correction, although bond markets were closed, equities gapped lower. Upon return from the holiday weekend, credit began the process of catching up to equities with the next six fixed income trading sessions resulting in nearly 19 basis points of widening in long duration credit. Growth concerns, restrictive Fed policy, a 25% drop in crude prices, and perhaps most importantly, a string of several large idiosyncratic credit stories, were the backdrop to a sell-off in credit markets. Some of the idiosyncratic headlines included the following credits: General Electric (poor earnings, ratings downgrades, challenging business outlook), British American Tobacco (potential FDA ban on menthol), Pacific Gas & Electric (California wildfires), and Goldman Sachs (1MDB money-laundering scandal). Ultimately, the Bloomberg Barclays US Long Duration index finished the month at 184 basis points with the investment grade bond market sitting at the widest levels in the past two years.

Funding status monitor

LGIMA estimates that pension funding ratios slightly increased throughout November, with gains driven primarily by the widening of credit spreads and positive equity returns. LGIMA estimates the discount rate's Treasury component decreased by 11 basis points while the credit component increased 12 basis points, resulting in an increase of one basis point.[1] Overall, liabilities for the average plan decreased ~0.3%, while plan assets with a traditional "60/40" asset allocation[2] increased by ~1.1%.

Funding Ratio Progression over the Month

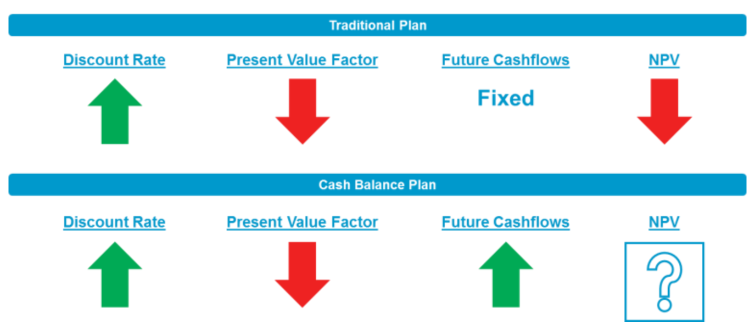


[1]Discount rates based on a blend of the Bank of America Merrill Lynch Average US Pension Plan AAA-A and Bank of America Merrill Lynch Mature US Pension Plan AAA-A discount curves

[2]For the average plan, LGIMA assumes a 60% allocation to MSCI AC World and a 40% allocation to Bloomberg Barclays Aggregate

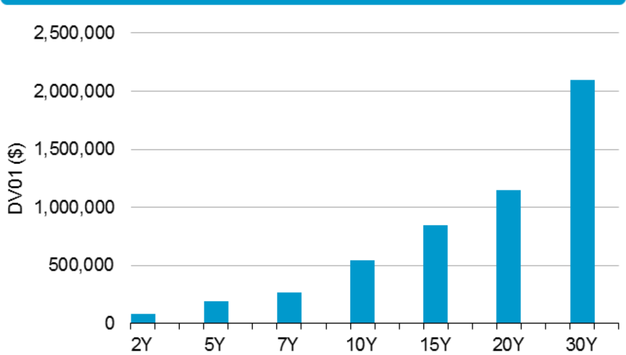
Pension market highlights

- Within a traditional plan, expected future benefit payments are fixed, thus the total liability value fluctuates due to fluctuations in discount curve
- Cash balance plans introduce "crediting rate risk", as future benefit payments can also fluctuate



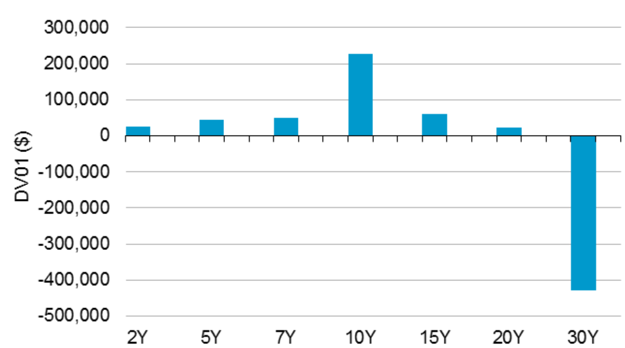
Source: LGIMA

Key rate duration profile of a Traditional Plan



Source: LGIMA

Key rate duration profile of a Cash Balance Plan



Source: LGIMA. Illustrates a plan's interest rate sensitivity when the crediting rate is tied to the 30yr Treasury yield