

INCOME RESEARCH + MANAGEMENT

LDI Highlights

- Corporate pension funded status fell by 1.1% during October to close the month at 93.4%.
 - The decline was driven by weak risk-market performance, as the S&P 500 Index returned -6.8% during October.
 - Partially offsetting poor equity results was a jump in long yields and spreads, which led to a 28bps increase in discount rates.
- Long duration supply was lighter than expected, at approximately \$24 billion, coming entirely from issuers rated A or below.
- Long corporate spreads widened in sympathy with risk-market weakness, widening 13bps during October to close the month at 166bps.
- Over \$13 billion of 20+ year Treasury bonds were stripped in October, which we view as an indicator of pension demand.

Rates Monitor	10/31/18	9/30/18	12/31/17
FTSE Pension Liability Discount Rate (%)	4.45	4.17	3.60
Bloom Barc Long Corporate Yield (%)	4.98	4.68	4.02
Bloom Barc Long Corporate A+ Yield (%)	4.64	4.36	3.69
Bloom Barc Long Corporate BBB Yield (%)	5.32	5.00	4.37
30 Year Swap Spread (bps)	-10	-7	-20



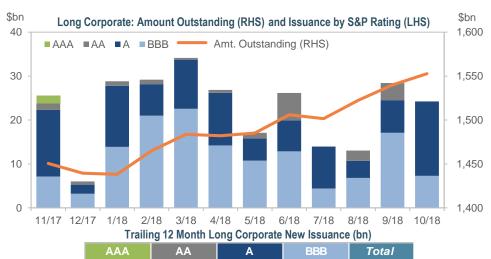
I DI MONITOR

October 31, 2018

IR+M LDI Corner: Five Golden Percentage Points of Yield

- Yields on long duration credit are hovering near 5%, a level that could be a psychological tipping point for some investors.
 - The Bloomberg Barclays Long Credit Index yielded 4.98% as of October month-end, driven by a 5.37% yield on long BBB-rated bonds.
- Long credit yields have reached 5% only twice over the last seven years, and each time was driven by a distinct, negative catalyst.
 - In 2013, the Taper Tantrum sent yields soaring, and long credit yields broke through 5% for a short period of about six months.
 - The most recent period of 5% long credit yields was during late 2015 to early 2016, as the energy sector was under extreme pressure and downgrades were spiking; long energy spreads surpassed 500bps, a far cry from the 199bps spread as of October month-end.

Glidepath Monitor	10/31/18	9/30/18	12/31/17	12/31/14
Funded Status (%)	93.4	94.5	87.6	81.5
Long Corporate Spreads (bps)	166	153	137	186
Curve (Long Corp - Int. Corp) (bps)	70	69	64	79



\$111.5

\$141.2

\$273.5

Sources: Milliman (Historical numbers revised as of 3/31/18), FTSE Russell (formerly Citigroup), Bloomberg Barclays, Bloomberg, and JPMorgan
All data in the above commentary is as of 10/31/18. Yields are represented as of the aforementioned date and are subject to change. The views contained in this report are those of IR+M and are based on information obtained by IR+M from sources that are believed to be reliable. This report is for informational purposes only and is not intended to provide specific advice, recommendations for, or projected returns of any particular IR+M product. No part of this material may be reproduced in any form, or referred to in any other publication, without express written permission from Income Research & Management.

\$1.7

\$19.1