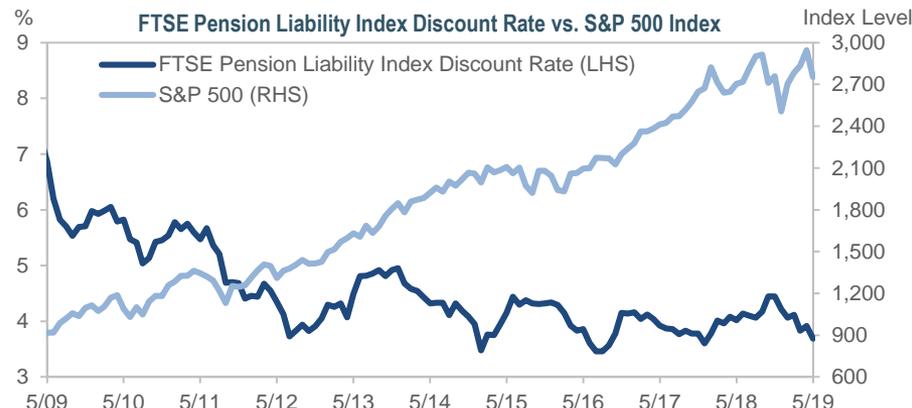


LDI Highlights

- Weakness in risk markets and a drop in bond yields dragged on corporate pension funded status, which fell by 3.5% to end the month at 87.9%.
 - Weakness in equities also weighed on funded status, as the S&P 500 Index declined by over 6% during May.
 - Discount rates plunged by 22bps amid the significant rally in Treasury yields.
- Investment-grade issuers priced slightly over \$30 billion in long-duration supply, an increase from the \$23 billion printed in April.
- Trade tensions and concerns regarding global growth led to a risk-off tone, and long-end spreads widened by 21bps on the month.
- Spread curves steepened as the Treasury rally kept yield-sensitive buyers, which had anchored long-end spreads, on the sidelines.

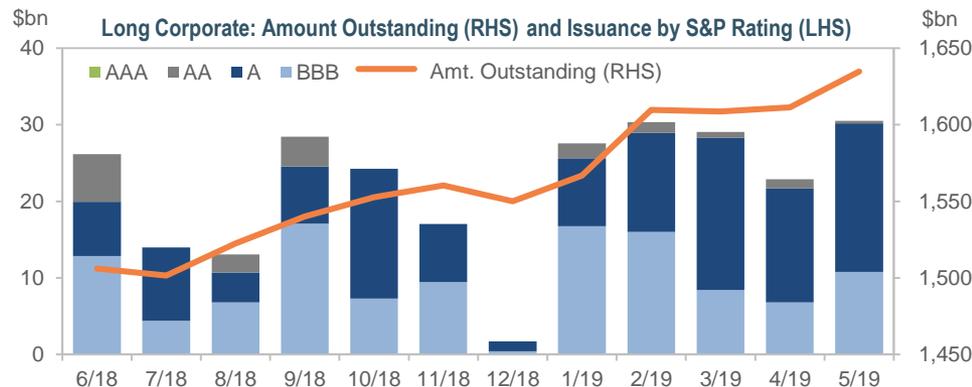
Rates Monitor	5/31/19	4/30/19	12/31/18
FTSE Pension Liability Discount Rate (%)	3.69	3.91	4.22
Bloom Barc Long Corporate Yield (%)	4.23	4.38	4.91
Bloom Barc Long Corporate A+ Yield (%)	3.79	3.98	4.40
Bloom Barc Long Corporate BBB Yield (%)	4.64	4.74	5.36
30 Year Swap Spread (bps)	-27	-24	-17



IR+M LDI Corner: A Securitized Middle Ground

- As plan sponsors have progressed along their glidepaths, we have seen increased interest in adding securitized allocations to their hedging portfolios. Securitized bonds are often seen as a diversifier to corporate credit, while still offering a yield spread over Treasuries.
- The challenge for many sponsors is building a truly diversified securitized portfolio, while still maintaining adequate duration to meet their hedging needs.
 - Shorter-duration securitized portfolios can utilize a broad array of best ideas; however, sponsors may need to compensate for the lack of duration.
 - The longer securitized universe is dominated by collateralized mortgage obligations (CMOs), which can lead to a concentrated portfolio or a less stable duration profile.
- For plan sponsors looking to find a middle ground, we believe that it is possible to construct well-diversified securitized portfolios with a duration profile in the 7-9 year range; long enough to help meet many sponsors' hedging goals while still utilizing a broad selection of best ideas in the securitized markets.

Glidepath Monitor	5/31/19	4/30/19	12/31/18	12/31/15
Funded Status (%)	87.9	91.4	89.4	81.7
Long Corporate Spreads (bps)	180	159	200	227
Curve (Long Corp - Int. Corp) (bps)	78	73	69	88



Trailing 12 Month Long Corporate New Issuance (bn)				
AAA	AA	A	BBB	Total
\$0.0	\$18.1	\$130.0	\$116.9	\$265.0

Sources: Milliman (Historical numbers revised as of 3/31/19), FTSE Russell (formerly Citigroup), Bloomberg Barclays, Bloomberg, and JPMorgan

All data in the above commentary is as of 5/31/19. 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. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). BARCLAYS® is a trademark and service mark of Barclays Bank Plc (collectively with its affiliates, "Barclays"), used under license. Bloomberg or Bloomberg's licensors, including Barclays, own all proprietary rights in the Bloomberg Barclays Indices. Neither Bloomberg nor Barclays approves or endorses this material, or guarantees the accuracy or completeness of any information herein, or makes any warranty, express or implied, as to the results to be obtained therefrom and, to the maximum extent allowed by law, neither shall have any liability or responsibility for injury or damages arising in connection therewith.