

LDI Highlights

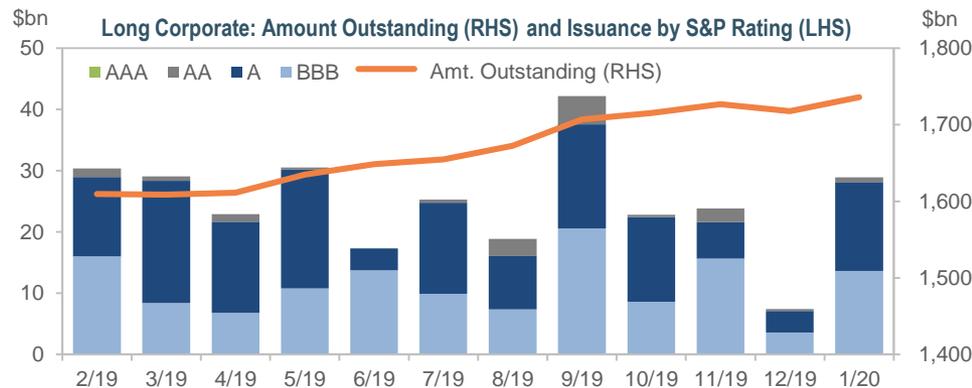
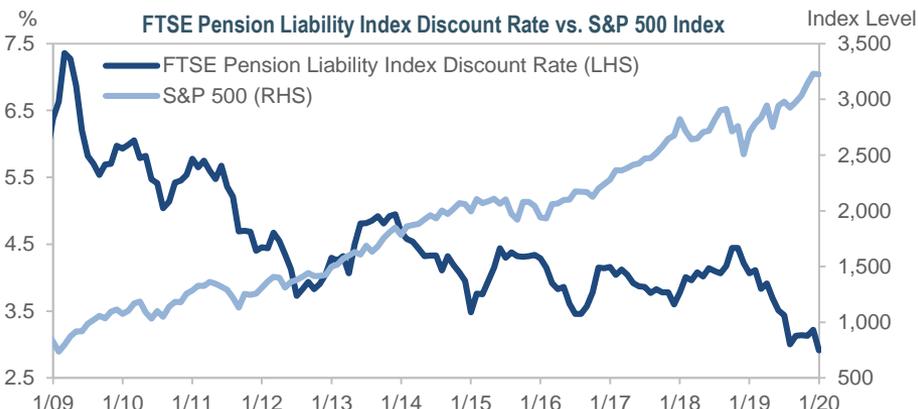
- Corporate pension funded status fell by 3.3% during January, closing the month at 85.7%
 - Discount rates decreased by over 30bps to 2.91% and reached the lowest level in the last 25 years
 - Equity market returns were unable to offset the negative impact of rates, as the S&P 500 Index fell slightly in January – by 0.04%
- Supply picked up and totaled almost \$29 billion, and was well-received by investors as new issue concessions fell to historically low levels
- Fears over the economic impact of the coronavirus pushed long-corporate spreads 13bps wider to 149bps
- Over \$5 billion of 20+ year Treasury bonds were stripped in January, and the 6-month moving average reached the highest pace since October 2018

Rates Monitor	1/31/20	12/31/19	12/31/18
FTSE Pension Liability Discount Rate (%)	2.91	3.22	4.22
Bloom Barc Long Corporate Yield (%)	3.35	3.60	4.91
Bloom Barc Long Corporate A+ Yield (%)	2.98	3.25	4.40
Bloom Barc Long Corporate BBB Yield (%)	3.70	3.94	5.36
30 Year Swap Spread (bps)	-33	-30	-17

IR+M LDI Corner: Time For An Annual Check-up

- We believe it is important for investment managers, plan sponsors and consultants to regularly review the appropriateness of the LDI strategy, at least annually, as new, up-to-date information is made available
 - The completion of fiscal year-end reporting provides an opportune time to do so, as actuarial valuations and assumptions are updated
 - Additionally, the evaluation of upcoming budget and business decisions, such as funding policies and M&A activity, could impact the plan investment strategy
- Updated assumptions and demographics could not only affect liabilities, by materially extending or shortening the duration of liabilities, but could also influence hedging assets due to any potential changes in funded status, progress/regression along glide paths, and desired credit exposure
- A coordinated approach from the actuary, sponsor, consultant and LDI manager can ensure the latest assumptions are appropriately reflected in the investment portfolio

Glidepath Monitor	1/31/20	12/31/19	12/31/18	12/31/15
Funded Status (%)	85.7	89.0	89.4	81.7
Long Corporate Spreads (bps)	149	136	200	227
Curve (Long Corp - Int. Corp) (bps)	73	66	69	88



Trailing 12 Month Long Corporate New Issuance (bn)				
AAA	AA	A	BBB	Total
\$0.0	\$15.4	\$149.2	\$134.8	\$299.4

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 1/31/20. 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.