

### LDI Market Updates

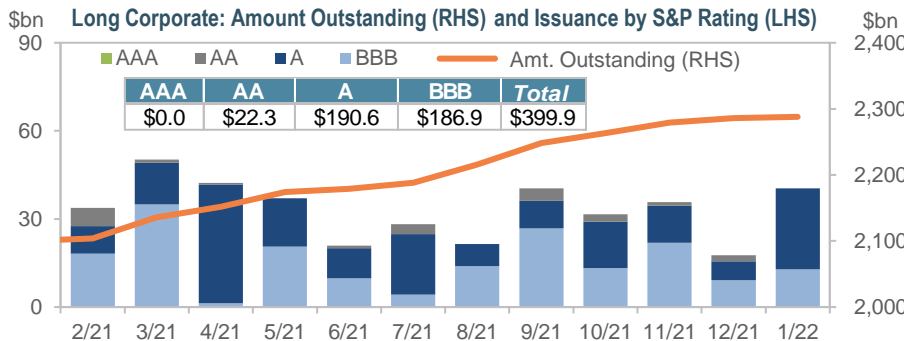
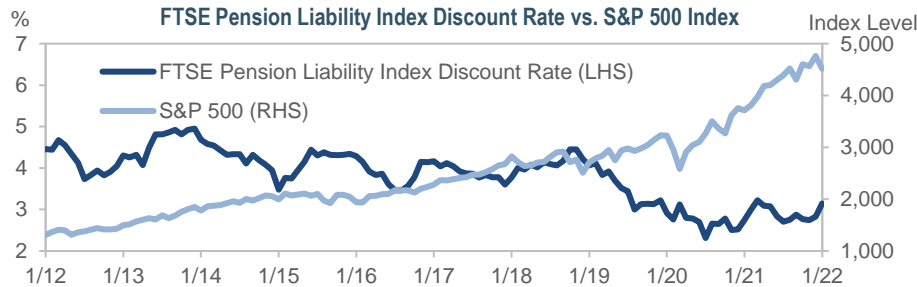
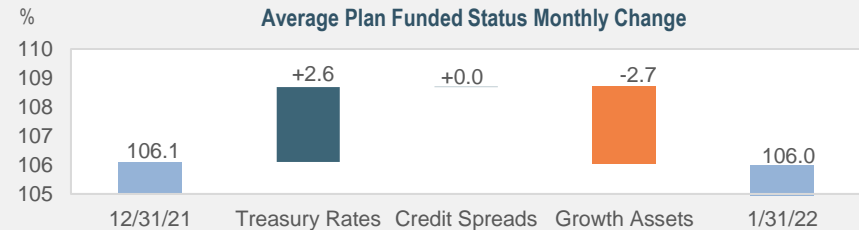
- Discount rates increased by 0.34% in January, from 2.62% to 2.96%.
- Continued concerns over inflation, Federal Reserve (Fed) tightening, and geopolitical tensions drove heightened market volatility and a risk-off sentiment.
- Long corporate issuance totaled almost \$42 billion, as borrowers looked to secure funding ahead of a potential further rise in rates. Spreads widened 16bps, from 130bps to 146bps, on the heavy supply and weaker market tone.

Rates Monitor	01/22	12/21	MoM Change
IR+M Average Plan Discount Rate (%)	2.96	2.62	0.34
Bloomberg Long Corp Yield (%)	3.51	3.10	0.41
Bloomberg Long Corp A+ Yield (%)	3.26	2.87	0.39
Bloomberg Long Corp BBB Yield (%)	3.76	3.32	0.44
Long Corp Spreads (bps)	146	130	16
Curve (Long Corp - Int Corp) (bps)	65	61	4

### IR+M Funded Status Monitor

- Our sample Average Plan funded status decreased by 0.1% during January, closing at 106.0%; negative growth asset returns were offset by higher discount rates.

Funded Status (%)	01/22	12/21	MoM Change
Average Plan	106.0	106.1	(0.1)
End Stage Plan	114.9	114.7	0.2
Young Plan	98.0	97.4	0.6



### IR+M LDI Corner – Projecting Forward in the New Year

- Plan sponsors commonly reevaluate their pension investment strategies at year end using updated actuarial valuations. 2021 was a banner year for funded statuses – our Average Plan improved by 14%. An asset-liability (AL) study can help plans determine if de-risking asset allocations or adjusting durations will protect their funded status gains.
- Stochastic AL analyses use robust capital market assumptions to show the likely range of outcomes for key metrics including funded status and contributions over a future time period (e.g., 10 years). Personalized studies incorporate plan's unique liabilities, PPA funding requirements, and relevant US GAAP/IAS accounting standards.
- Clients and consultants can compare different allocations and glidepaths to quantify downside probabilities and inform investment decisions according to their unique risk tolerances and return objectives.
- We recommend regular AL studies (e.g., every 3 to 5 years) as a best practice to dynamically evolve investment strategies as market conditions, liability profiles, regulations, and client objectives change. We recently expanded our LDI toolkit to include the [Moody's PFareo platform](#), which we believe will enable us to more efficiently and effectively communicate and craft our custom LDI solutions.

# IR+M DISCLOSURE STATEMENT

## Disclosures:

Sources: Milliman, FTSE Russell (formerly Citigroup), Bloomberg, and JPMorgan. All data in the above commentary is as of 1/31/22. 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®" and Bloomberg Indices are service marks of Bloomberg Finance L.P. and its affiliates, including Bloomberg Index Services Limited ("BISL"), the administrator of the index (collectively, "Bloomberg") and have been licensed for use for certain purposes by IR+M. Bloomberg is not affiliated with IR+M, and Bloomberg does not approve, endorse, review, or recommend the products described herein. Bloomberg does not guarantee the timeliness, accurateness, or completeness of any data or information relating to any IR+M product.

## IR+M Funded Status Monitor Assumptions:

Detailed methodology and assumptions for the IR+M Funded Status Monitor can be found at:

<http://www.incomeresearch.com/wp-content/uploads/2021/01/IRM-Funded-Status-Monitor-2021.pdf>.

	End Stage	Average	Young
<b>Target Liability Duration (Years)</b>	8-10	12-14	15-17
<b>Funded Ratio at Inception (i.e., 12/31/2019)</b>	100.0%	89.8%	80.0%
<b>Asset Allocations</b>	<b>End Stage</b>	<b>Average</b>	<b>Young</b>
<b>US Equity</b>	12%	27%	38%
<b>International Equity</b>	3%	17%	22%
<b>US REITS</b>	0%	2%	5%
<b>Private Equity</b>	0%	4%	5%
<b>Growth Assets Allocation</b>	15%	50%	70%
<b>Long Government Fixed Income</b>	5%	10%	10%
<b>Long Credit Fixed Income</b>	30%	25%	10%
<b>Intermediate Government Fixed Income</b>	5%	5%	5%
<b>Intermediate Credit Fixed Income</b>	45%	10%	5%
<b>Fixed Income Allocation</b>	85%	50%	30%