

LDI Market Updates

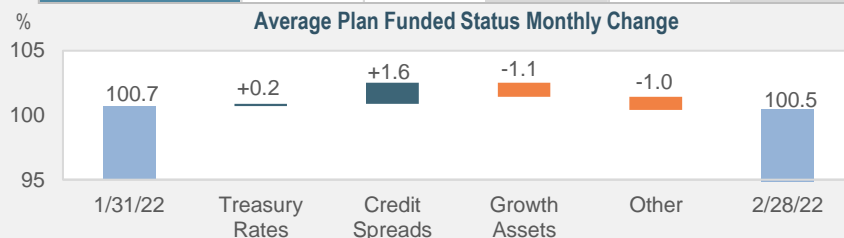
- Discount rates increased by 0.24% in February, from 2.96% to 3.20%.
- Elevated inflation and rising interest rates continued to drive risk-off sentiment, which was exacerbated as geopolitical tensions turned into a full-blown conflict.
- Long corporate issuance totaled just over \$32 billion, as issuance largely dried up towards the end of the month due to heightened volatility. Spreads widened 18bps, from 146bps to 164bps, on the weaker market tone.

Rates Monitor	02/22	01/22	MoM Change	12/21	YTD Change
IR+M Average Plan Discount Rate (%)	3.20	2.96	0.24	2.61	0.59
Bloomberg Long Corp Yield (%)	3.78	3.51	0.27	3.10	0.68
Bloomberg Long Corp A+ Yield (%)	3.50	3.26	0.24	2.87	0.63
Bloomberg Long Corp BBB Yield (%)	4.05	3.76	0.29	3.32	0.73
Long Corp Spreads (bps)	164	146	18	130	34
Curve (Long Corp - Int Corp) (bps)	68	65	3	61	7

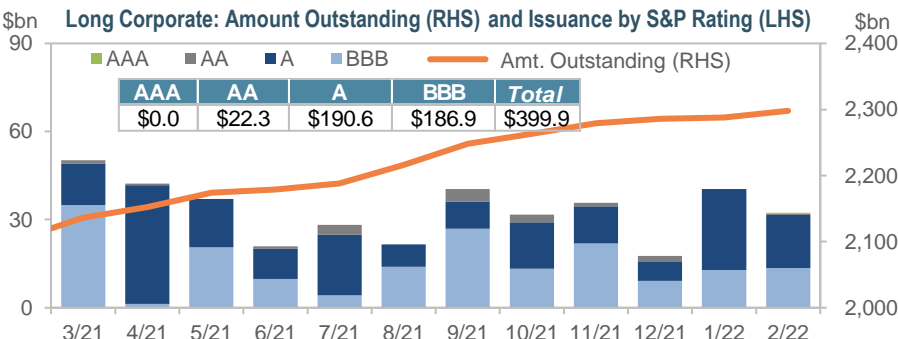
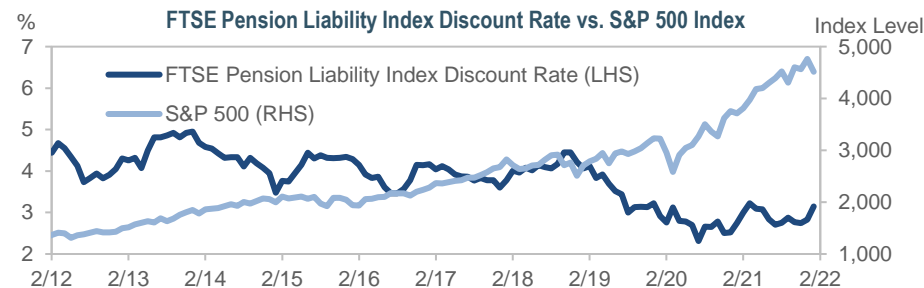
IR+M Funded Status Monitor

- Our sample Average Plan funded status decreased by 0.2% during February, closing at 100.5%; despite higher discount rates, negative growth asset returns pushed the funded status slightly lower.

Funded Status (%)	02/22	01/22	MoM Change	12/21	YTD Change
Average Plan	100.5	100.7	(0.2)	101.9	(1.4)
End Stage Plan	105.8	106.5	(0.7)	106.8	(1.0)
Young Plan	91.5	91.4	0.1	92.2	(0.7)



Other includes contributions, expenses, benefit accruals, and liability profile changes.



IR+M LDI Corner – The Low-Down On The Long-End

- Long corporate supply continues to grow, but the rate of growth has slowed. In 2021, the amount outstanding in the Bloomberg Long Corporate Index increased only 9%, down from over 20% in 2020.
- Issuance is expected to fall this year given rising rates, especially as many issuers pulled forward supply last year to lock-in low funding costs. While long supply has so far remained healthy year-to-date, it has been heavily skewed towards financials compared to the same time period in previous years.
- Long corporate spreads spiked on the recent geopolitical turmoil but had been gradually widening this year on rising yields. This current period of heightened uncertainty aside, the demand picture for long bonds continues to look strong given pension and foreign demand.
- At IR+M, we help our LDI clients source long bonds regardless of the market environment. While relative value in the new issue market has not been as attractive this year, we continue to find opportunities, particularly where we can selectively swap from higher premium to lower premium bonds to benefit from credit convexity. We also believe there is value in considering non-traditional assets such as taxable municipals and [long securitized](#).

# IR+M DISCLOSURE STATEMENT

## Disclosures:

Sources: Moody's PFaroe, Milliman, FTSE Russell (formerly Citigroup), Bloomberg, and JPMorgan. All data in the above commentary is as of 2/28/22. 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 but IR+M makes no guarantee as to the accuracy or completeness of the underlying third-party data used to form IR+M's views and opinions. This report is for informational purposes only and is not intended to provide specific advice, recommendations, or projected returns for 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. Moody's Analytics PFaroe® product used by IR+M includes market data and other information sourced from third parties under license. Certain licensors require Moody's Analytics to make disclosures to, or to obtain acknowledgements or agreements from, IR+M and parties receiving the information from IR+M, which is effected by the disclosures and disclaimers available at <https://static.pfaroe.com/DisclosuresAndDisclaimers/index.html>.

## IR+M Funded Status Monitor Assumptions:

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

<https://www.incomeresearch.com/wp-content/uploads/2022/02/IRM-Funded-Status-Monitor-Whitepaper-2022.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>	End Stage	Average	Young
<b>US All Cap Equity</b>	8%	27%	38%
<b>International Equity</b>	2%	17%	22%
<b>US REITS</b>	0%	2%	5%
<b>Private Equity</b>	0%	4%	5%
<b>Growth Assets Allocation</b>	10%	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>	50%	10%	5%
<b>Fixed Income Allocation</b>	90%	50%	30%