INCOME RESEARCH + MANAGEMENT

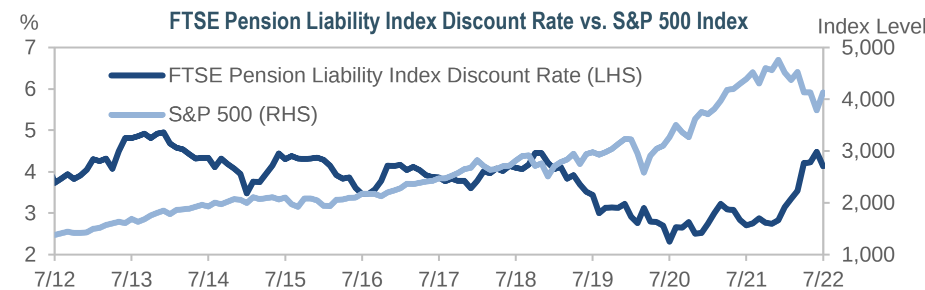
LDI MONITOR

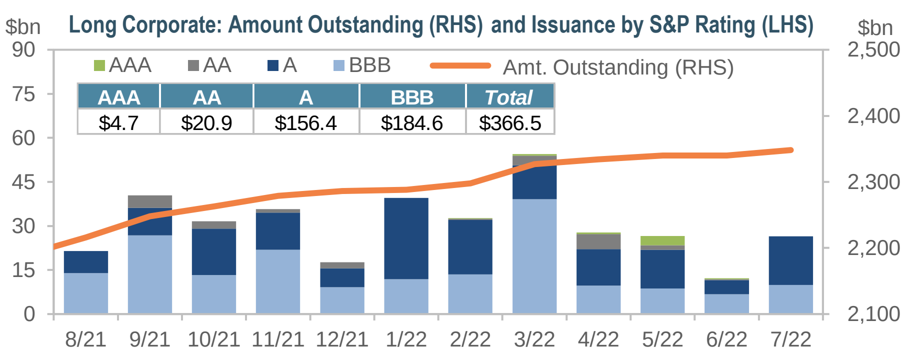
July 31, 2022

LDI Market Updates

- Discount rates decreased by 0.41% in July, from 4.31% to 3.90%.
- Despite weak economic data, persistent inflationary pressures, tightening monetary policy, and recessionary fears, risk assets rallied in July with the S&P 500 returning 9.1%, its strongest month since November 2020.
- Long corporate issuance totaled roughly $27 billion, however, bonds with 30-year maturities only accounted for $5 billion of long supply; spreads tightened 11bps over the month, from 186bps to 175bps.

Rates Monitor	07/22	06/22	MoM Change	12/21	YTD Change
IR+M Average Plan Discount Rate (%)	3.90	4.31	(0.41)	2.61	1.29
Bloomberg Long Corp Yield (%)	4.78	5.11	(0.33)	3.10	1.68
Bloomberg Long Corp A+ Yield (%)	4.41	4.73	(0.32)	2.87	1.54
Bloomberg Long Corp BBB Yield (%)	5.17	5.51	(0.34)	3.32	1.85
Long Corp Spreads (bps)	175	186	(11)	130	45
Curve (Long Corp - Int Corp) (bps)	49	47	2	61	(12)

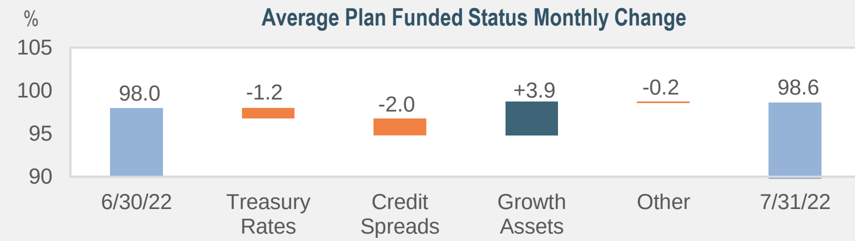




IR+M Funded Status Monitor

- Our sample Average Plan funded status increased by 0.6% during July, closing at 98.6%; despite lower discount rates, positive growth asset returns pushed the funded status higher.

Funded Status (%)	07/22	06/22	MoM Change	12/21	YTD Change
Average Plan	98.6	98.0	0.6	101.9	(3.3)
End Stage Plan	104.5	104.9	(0.4)	106.8	(2.3)
Young Plan	89.7	89.6	0.1	92.2	(2.5)



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

IR+M LDI Corner – Special Financial Assistance Deserves Specialized Solutions

- The American Rescue Plan Act of 2021 included Special Financial Assistance (SFA), a program which strengthens participant retirement security by providing 30 years of benefit payments for distressed multiemployer plans.
- SFA assets must be invested at least 67% in investment grade fixed income. We believe actively managing the fixed income solution ensures compliance with the permissible assets and maximizes sufficiency of meeting all future payments.
  - The customization allowed with a separately managed account (SMA) may be preferred over a fund vehicle. Mangers can limit or expand guidelines based on how sponsors interpret the Final Rule or for those reapplying after being approved under the Interim Final Rule.
  - Active strategies can access opportunities more efficiently across the curve than passive strategies to meet or out earn the liability discount rate hurdle.
  - We have seen heightened interest in liability aware strategies focused on near term liquidity plus alpha – in particular, front end cash flow matching for 3 to 5 years combined with a total return strategy.
  - Liquidity is important because we anticipate benefit payments and administrative expenses will be paid first from SFA assets, as allowed, to increase the plan's allocation to growth assets and, hence, expected return.

The single effective discount rate shown is for the IR+M Average Sample Plan, calculated from the FTSE Pension Discount Curve. 2022 long corporate issuance sourced from Bloomberg, all prior months sourced from JP Morgan. Totals may not sum due to rounding.

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 7/31/22. 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 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
Target Liability Duration (Years)	8-10	12-14	15-17
Funded Ratio at Inception (i.e., 12/31/2019)	100.0%	89.8%	80.0%

Asset Allocations	End Stage	Average	Young
US All Cap Equity	8%	27%	38%
International Equity	2%	17%	22%
US REITS	0%	2%	5%
Private Equity	0%	4%	5%
Growth Assets Allocation	10%	50%	70%
Long Government Fixed Income	5%	10%	10%
Long Credit Fixed Income	30%	25%	10%
Intermediate Government Fixed Income	5%	5%	5%
Intermediate Credit Fixed Income	50%	10%	5%
Fixed Income Allocation	90%	50%	30%