IR+M INCOME RESEARCH + MANAGEMENT

LDI MONITOR

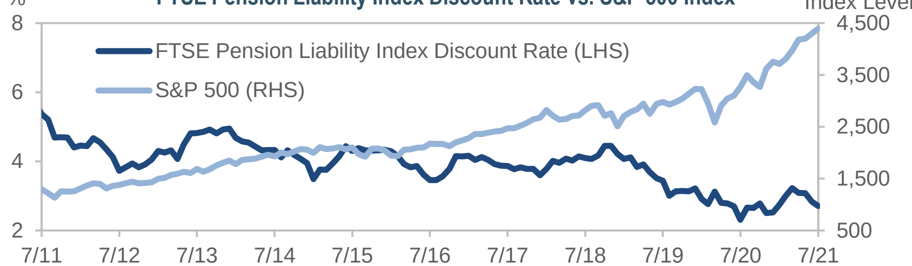
July 31, 2021

LDI Market Updates

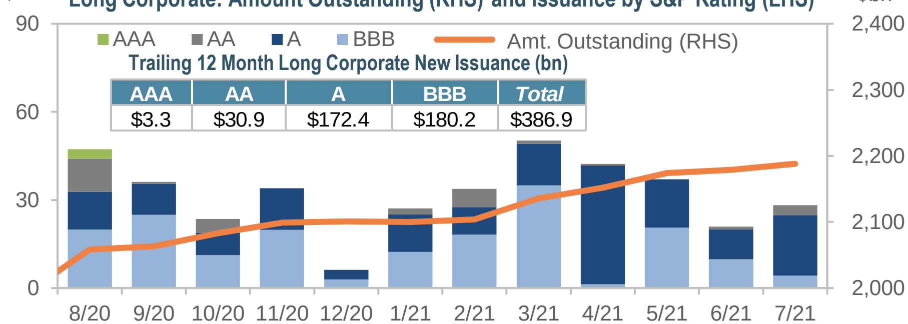
- Discount rates decreased in July by 0.14%, to 2.43% from 2.57%.
- Robust corporate earnings and positive economic data supported equity prices, while long corporate spreads widened 5bps amid concerns of slowing growth.
- Long corporate issuance totaled roughly $28 billion and was dominated by issuers rated A or better, accounting for almost 85% of supply.
  - The lack of supply helped BBB-rated issuers outperform higher-quality issuers, despite the risk-off tone.

Rates Monitor	07/21	06/21	MoM Change	12/20	YTD Change
IR+M Average Plan Discount Rate (%)	2.43	2.57	(0.14)	2.22	0.21
Bloom Barc Long Corp Yield (%)	2.94	3.08	(0.14)	2.78	0.16
Bloom Barc Long Corp A+ Yield (%)	2.70	2.84	(0.14)	2.49	0.21
Bloom Barc Long Corp BBB Yield (%)	3.16	3.30	(0.14)	3.07	0.09
Long Corp Spreads (bps)	122	117	5	140	(18)
Curve (Long Corp - Int Corp) (bps)	60	59	1	72	(12)

FTSE Pension Liability Index Discount Rate vs. S&P 500 Index



Long Corporate: Amount Outstanding (RHS) and Issuance by S&P Rating (LHS)



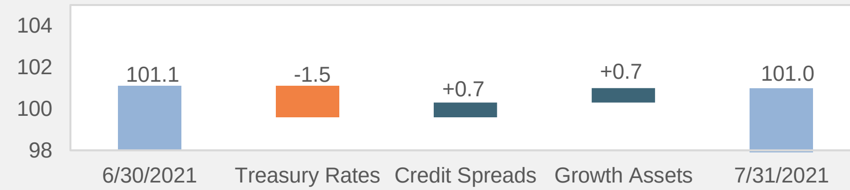
AAA	AA	A	BBB	*Total*
$3.3	$30.9	$172.4	$180.2	$386.9

IR+M Funded Status Monitor

- Our sample Average Plan funded status decreased by 0.1% during July, closing at 101.0%; despite modest positive returns on growth assets, falling discount rates pushed its funded status lower month-over-month.

Funded Status (%)	07/21	06/21	MoM Change	12/20	YTD Change
Average Plan	101.0	101.1	(0.1)	91.8	9.2
End Stage Plan	109.5	108.9	0.6	102.8	6.7
Young Plan	92.1	92.8	(0.7)	80.0	12.1

Average Plan Funded Status Monthly Change



IR+M LDI Corner: PBGC[1] Offers Interim Clarifications on SFA[2] for Multiemployer Plans

- On July 9th, the PBGC issued the Interim Final Rule on the SFA program for troubled multiemployer plans in the American Rescue Plan Act. The PBGC is soliciting comments before issuing the final rule at an unspecified future date.
- The discount rate used to determine the SFA amount (i.e., benefit payments and administrative expenses for 30 years) for most applicants will be the 20+ year AA corporate rate plus 200 bps, which is about 5.5%. Our expectation is that the PBGC will not change this assumption in the final rule.
- Assets associated with SFA must be segregated from other plan assets. Currently, the rule only allows for investment grade fixed income. The PBGC is evaluating if assets with similar risk should also be permitted, including synthetic fixed income, insurance contracts, hybrid securities, and preferred stocks.
- A well-constructed LDI[3] strategy can improve the likelihood that SFA assets are sufficient to cover all 30 years of payments. Current investment grade bonds alone may not meet the 5.5% hurdle rate. We anticipate most sponsors will invest non-SFA assets in higher-return growth assets. We also expect sponsors to draw down on SFA assets first to pay benefits and expenses and for the overall percent allocated to growth assets to increase over time.

[1] PBGC = Pension Benefit Guaranty Corporation
[2] SFA = Special Financial Assistance
[3] LDI = Liability Driven Investing

IR+M DISCLOSURE STATEMENT

Disclosures:

Sources: Milliman, FTSE Russell (formerly Citigroup), Bloomberg Barclays, Bloomberg, and JPMorgan. All data in the above commentary is as of 7/31/21. 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.

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
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 Equity	12%	27%	38%
International Equity	3%	17%	22%
US REITS	0%	2%	5%
Private Equity	0%	4%	5%
Growth Assets Allocation	15%	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	45%	10%	5%
Fixed Income Allocation	85%	50%	30%