

LDI Highlights

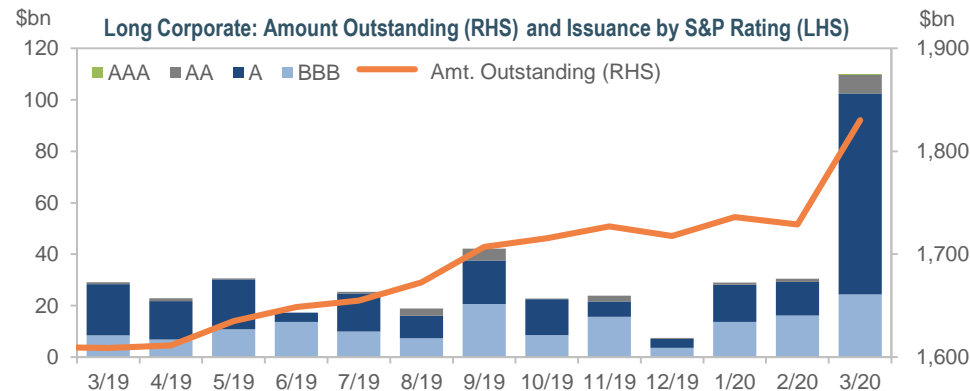
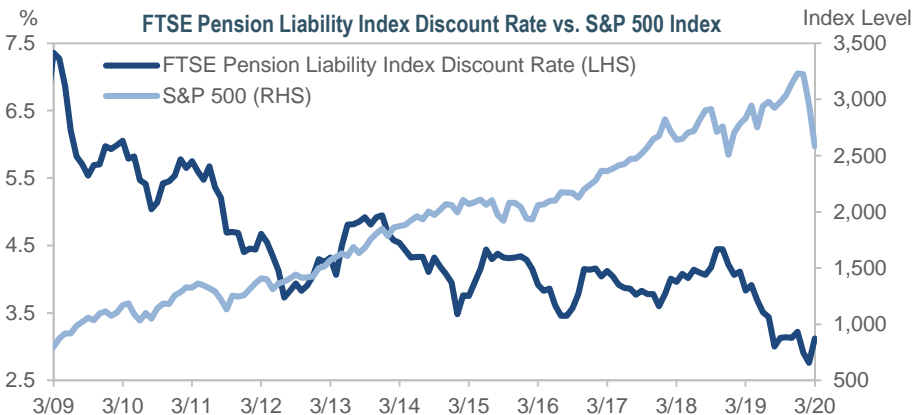
- Corporate pension funded status increased by 3.4% to 85.6%, as a large increase in discount rates more than offset negative investment returns.
 - Discount rates rose by 36bps month-over-month to 3.12%.
 - Growth assets underperformed in March, as the S&P 500 Index retraced 2019 gains, and fell over 12%.
- Long-issuance totaled almost \$110 billion – the highest month of supply on record – and was predominately comprised of higher-quality issuers, with 78% of issuance rated A- or higher.
- Long corporate spreads widened to nearly 360bps before tightening to 274bps, ending over 100bps wider month-over-month.
- Spread curves flattened materially, as liquidity concerns challenged front-end credit spreads and caused credit curves to temporarily invert.

Rates Monitor	3/31/20	2/29/20	12/31/19
FTSE Pension Liability Discount Rate (%)	3.12	2.76	3.22
Bloom Barc Long Corporate Yield (%)	3.87	3.22	3.60
Bloom Barc Long Corporate A+ Yield (%)	3.27	2.82	3.25
Bloom Barc Long Corporate BBB Yield (%)	4.60	3.61	3.94
30 Year Swap Spread (bps)	-45	-38	-30

IR+M LDI Corner: Impact of COVID-19 on Defined Benefit Plans

- Funded status declines since year-end and outperformance of hedging versus growth assets may drive plan sponsors to re-risk or re-balance asset allocations.
 - Sponsors should consider gradually legging into growth assets to account for transaction costs and liquidity management in fixed income.
 - With corporate spreads at historic wides, this may be an attractive opportunity for [re-risking within the LDI portfolio](#) as well.
- CARES Act provided funding relief for plan sponsors to defer any required cash contributions in 2020 until after January 1, 2021.
- Funded ratio losses may prompt sponsors to postpone or cancel upcoming pension risk transfer activity in the near-term.
- Impact of discount rates and asset returns will not be captured for financial reporting purposes until fiscal year-end.

Glidepath Monitor	3/31/20	2/29/20	12/31/19	12/31/15
Funded Status (%)	85.6	82.2	89.0	81.7
Long Corporate Spreads (bps)	274	171	136	227
Curve (Long Corp - Int. Corp) (bps)	3	76	66	88



Trailing 12 Month Long Corporate New Issuance (bn)				
AAA	AA	A	BBB	Total
\$0.2	\$21.7	\$207.5	\$150.9	\$380.3

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 3/31/20. 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.

First Quarter 2020 Corporate Issuance: Largest Long-Dated USD Investment Grade Deals

- Cash flow concerns and issues with the Commercial Paper market forced many companies to issue long-duration corporate bonds, or tap existing lines of credit.
 - Long-end supply totaled \$170 billion in 1Q20, ahead of the \$140 billion priced in the entire second half of 2019.
 - Issuance was concentrated in high-quality companies, as liquidity for lower-quality, less-sponsored issuers was challenged at times.
- New issue concessions averaged 26bps in March, after averaging just 3bps in January and February, as borrowers flooded the market whenever there was a supportive tone.

Ticker	Issuer Name	Maturity	Issue Date	Average Rating	Amount Issued (\$bn)	Yield at Issue (%)	Spread at Issue (bps)	Concession to Outstanding (bps)	Order Book (\$bn)	Oversubscription Level (times)
ORCL	Oracle Corp	20	4/1/2020	A-	3.0	3.62	225	60	7.4	2.5
		30	4/1/2020	A-	4.5	3.62	225	50	11.2	2.5
		40	4/1/2020	A-	3.5	3.87	250	50	8.7	2.5
WFC	Wells Fargo & Co	31	3/30/2020	A	5.5	5.01	370	10	N/A	N/A
BAC	Bank of America Corp	31	3/20/2020	A	5.5	4.08	260	5	N/A	N/A
INTC	Intel Corp	20	3/25/2020	A+	0.8	4.61	295	65	2.0	2.7
		30	3/25/2020	A+	2.3	4.76	310	65	5.3	2.4
		40	2/13/2020	A+	1.0	3.13	110	5	3.4	3.4
		40	3/25/2020	A+	1.0	5.06	340	65	3.9	3.9
XOM	Exxon Mobil Corp	20	3/19/2020	AA+	1.3	4.23	250	60	2.5	2.0
		30	3/19/2020	AA+	2.8	4.33	260	55	5.1	1.8
HD	Home Depot Inc/The	20	3/30/2020	A	1.3	3.36	195	-5	7.9	6.3
		30	1/13/2020	A	1.3	3.19	90	7	3.0	2.4
		30	3/30/2020	A	1.5	3.41	200	-10	11.3	7.5
NVDA	NVIDIA Corp	20	3/31/2020	A-	1.0	3.51	205	5	6.7	6.7
		30	3/31/2020	A-	2.0	3.51	205	5	9.0	4.5
		40	3/31/2020	A-	0.5	3.71	225	0	6.6	13.2
CARR	Carrier Global Corp	20	2/27/2020	BBB-	1.5	3.38	130	N/A	7.4	4.9
		30	2/27/2020	BBB-	2.0	3.58	150	N/A	8.3	4.2
PEP	PepsiCo Inc	20	3/19/2020	A+	0.8	3.55	190	55	2.5	3.3
		30	3/19/2020	A+	1.5	3.65	200	50	4.1	2.7
		40	3/19/2020	A+	0.8	3.95	230	50	2.7	3.6

Sources: Bloomberg and JPMorgan

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