IR+M INCOME RESEARCH + MANAGEMENT

# LDI MONITOR

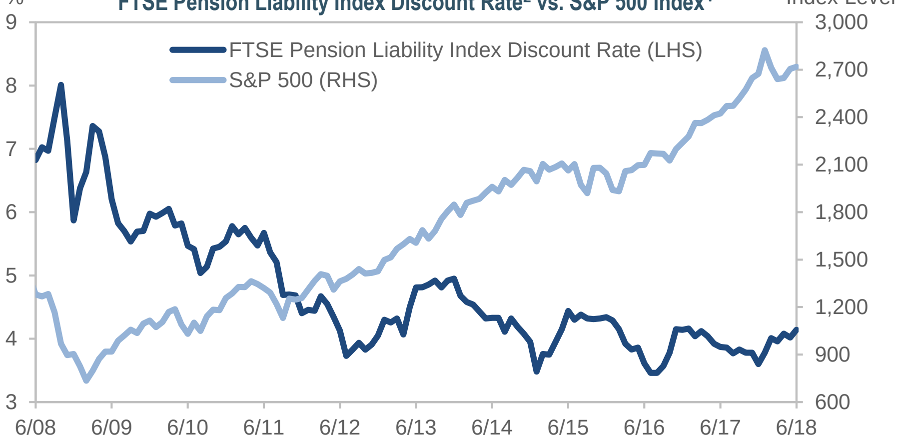
June 30, 2018

## LDI Highlights

- Corporate pension funded status rose 1.2% during June to close the second quarter at 92.8%, a level not reached since October 2008.[1]
  - The increase was driven by both higher discount rates and rising equity markets, both of which reached 1.5 year highs.
  - During the second quarter, the S&P 500 Index returned over 3%, while discount rates rose 18bps.[2,4]
- Despite a decline during the second quarter, year-to-date long-end supply is $167 billion, which was $40 billion higher year-over-year.[5]
- Long corporate spreads reached 177bps during June, a level not reached since the fall of 2016.[3]
- Demand for US Treasury STRIPS has increased materially year-to-date, as the amount of principal STRIPS created hit $21.7 billion during 2Q18, following a record $28.2 billion in 2017.[5]

| Rates Monitor | 6/30/18 | 5/31/18 | 12/31/17 |
|---|---|---|---|
| FTSE Pension Liability Discount Rate[2] (%) | 4.14 | 4.02 | 3.60 |
| Bloom Barc Long Corporate Yield[3] (%) | 4.69 | 4.56 | 4.02 |
| Bloom Barc Long Corporate A+ Yield[3] (%) | 4.34 | 4.23 | 3.69 |
| Bloom Barc Long BBB Corp Yield[3] (%) | 5.07 | 4.92 | 4.37 |
| 30 Year Swap Spread[4] (bps) | -6 | -8 | -20 |

FTSE Pension Liability Index Discount Rate[2] vs. S&P 500 Index[4]

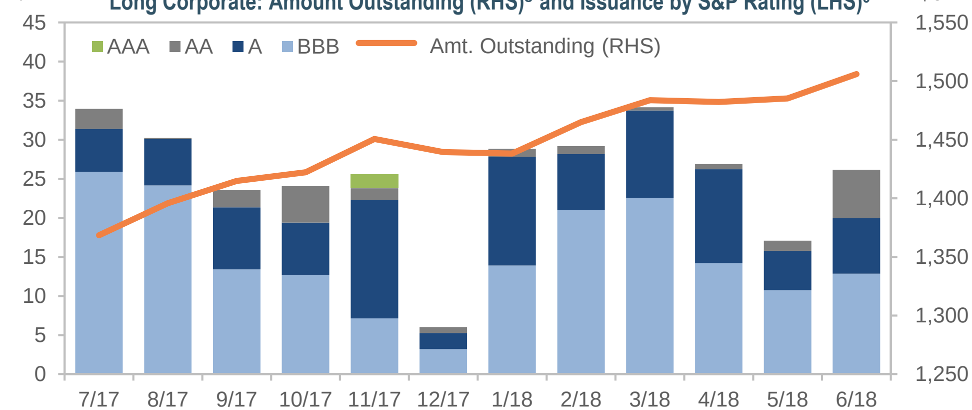



## IR+M LDI Corner: STRIP Away Your Volatility

- 2018 is on pace to be a record year for stripping activity. Through May, the amount of principal STRIPS created already exceeded 75% of the 2017 level (a historic high) with more than half the year remaining. Demand for these long duration instruments has largely been driven by LDI buyers looking to lock in recent funded status gains.
- For plan sponsors who wish to avoid derivative use, STRIPS can provide a capital efficient way to maximize their hedge ratios. This can come at the cost of a key-rate mismatch with plan liabilities, however for most LDI investors, particularly sponsors of early/mid-stage plans, these curve differences are typically a small driver of volatility.
- Long corporate spreads, while off their lows, are still considered relatively tight by some investors, prompting fears that we are relatively late in the credit cycle, which has further fueled demand for Treasury assets.
- The uptick in stripping activity has improved liquidity and market depth and provided opportunities for active managers to exploit disconnects between principal and coupon pricing across the curve. However, care must be taken within these strategies due to the amplified cost of trading such long duration instruments.

| Glidepath Monitor | 6/30/18 | 5/31/18 | 12/31/17 | 12/31/14 |
|---|---|---|---|---|
| Funded Status[1] (%) | 92.8 | 91.6 | 87.6 | 81.5 |
| Long Corporate Spreads[3] (bps) | 175 | 163 | 137 | 186 |
| Curve[3] (Long Corp - Int. Corp) (bps) | 76 | 70 | 64 | 79 |

Long Corporate: Amount Outstanding (RHS)[3] and Issuance by S&P Rating (LHS)[5]




Trailing 12 Month Long Corporate New Issuance[5] (bn)

| AAA | AA | A | BBB | *Total* |
|---|---|---|---|---|
| $1.7 | $22.4 | $99.7 | $181.8 | *$305.6* |

[1]Milliman (Historical numbers revised as of 3/31/18); [2]FTSE Russell; [3]Bloomberg Barclays; [4]Bloomberg; [5]JP Morgan

All data in the above commentary is as of 6/30/18. 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.

## Second Quarter 2018 Corporate Issuance: Largest Long-Dated USD Investment Grade Deals

- Increased hedging costs for overseas buyers, coupled with higher short- and intermediate-dated yields, caused overall long-end demand to decrease during the second quarter, resulting in overall lower supply
  - Long-end issuance comprised 21% of total issuance during 2Q18, which was equal to the longer-term average, but down 9% from the first quarter
- For the longest deals, both new issue concessions and average oversubscription levels were steady during the quarter; however, some smaller, BBB-rated issuers priced deals slightly wider to levels that would have gotten done during the first quarter

| 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) |
|---|---|---|---|---|---|---|---|---|---|---|
| WMT | Walmart | 20-year | 6/20/18 | AA | 1.5 | 4.03 | 80 | 10 | 4.6 | 3.1 |
| | | 30-year | 6/20/18 | AA | 3.0 | 4.13 | 105 | 10 | 6.8 | 2.3 |
| VOD | Vodafone | 20-year | 5/23/18 | BBB+ | 1.0 | 5.15 | 200 | 15 | 5.0 | 5.0 |
| | | 30-year | 5/23/18 | BBB+ | 3.0 | 5.30 | 215 | 15 | 7.0 | 2.3 |
| BAYNGR | Bayer | 20-year | 6/18/18 | BBB+ | 1.0 | 4.47 | 170 | 0 | 4.8 | 4.8 |
| | | 30-year | 6/18/18 | BBB+ | 2.0 | 4.90 | 185 | 0 | 7.5 | 3.8 |
| UNP | Union Pacific | 20-year | 6/5/18 | BBB+ | 0.8 | 4.39 | 130 | 10 | 2.4 | 3.2 |
| | | 30-year | 6/5/18 | BBB+ | 1.5 | 4.51 | 142 | 12 | 4.3 | 2.9 |
| | | 40-year | 6/5/18 | BBB+ | 0.5 | 4.81 | 172 | 17 | 1.5 | 3.0 |
| EQH | AXA Equitable Holdings | 30-year | 4/17/18 | BBB | 1.5 | 5.02 | 200 | N/A | 4.6 | 3.1 |
| ETP | Energy Transfer Partners | 20-year | 6/6/18 | BBB- | 0.5 | 5.83 | 275 | 7 | 1.9 | 3.7 |
| | | 30-year | 6/6/18 | BBB- | 1.0 | 6.08 | 300 | 7 | 3.5 | 3.5 |
| GS | Goldman Sachs | 21-year | 4/18/18 | A- | 1.5 | 4.41 | 135 | 7 | 3.4 | 2.3 |
| TRPCN | TransCanada Pipelines | 20-year | 5/3/18 | BBB+ | 0.5 | 4.78 | 165 | 10 | 1.0 | 2.0 |
| | | 30-year | 5/3/18 | BBB+ | 1.0 | 4.93 | 180 | 15 | 1.4 | 1.4 |
| TXN | Texas Instruments | 30-year | 4/30/18 | A+ | 1.5 | 4.18 | 107 | 2 | 3.0 | 2.0 |

Source: Bloomberg and JP Morgan

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