IR+M INCOME RESEARCH + MANAGEMENT

# LDI MONITOR

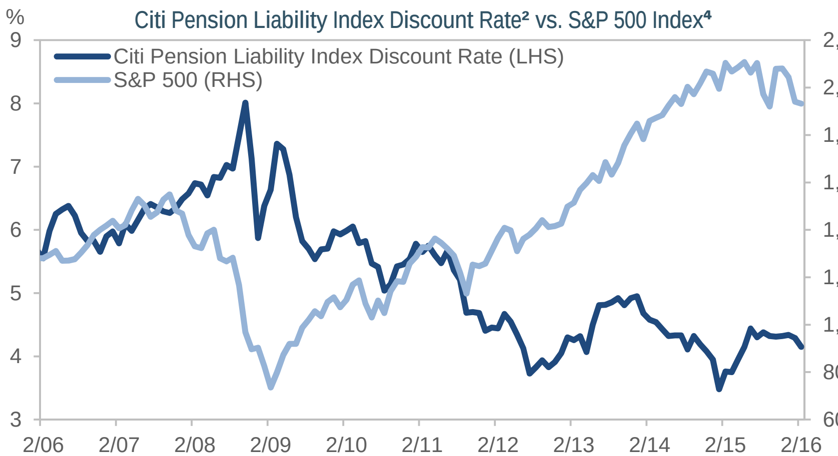
February 29, 2016

## LDI Highlights

- Corporate pension funded status dropped for a fifth consecutive month, falling 1.7% to 79.1%; liability values increased while assets were slightly lower.[1]
  - Long corporate bond yields decreased sharply during the second half of the month, declining 19bps from a two-year high of 5.13% reached during mid-February to end the month at 4.94%.[3]
- AAA and AA-rated long corporate issuance ticked up during the month, as borrowing rates for higher-quality issuers remain near their 3-year average.[6]
  - Johnson & Johnson and ExxonMobil, 2 of the 3 remaining US-based AAA-rated companies, both came to market with 30-year issues of approximately $2bn and $2.5bn, respectively.
- Long corporate spreads ended the month at 261bps, 71bps wider than the post-crisis average of 190bps and 34bps wider year-to-date.[3]

| Rates Monitor | 2/29/16 | 1/31/16 | 12/31/15 |
|---|---|---|---|
| Citigroup Pension Discount Rate[2] (%) | 4.15 | 4.29 | 4.34 |
| Barclays Long Credit Yield[3] (%) | 4.88 | 4.99 | 5.02 |
| Barclays Long Corporate Yield[3] (%) | 4.94 | 5.06 | 5.06 |
| Barclays Long BBB Corporate Yield[3] (%) | 5.64 | 5.71 | 5.60 |
| 30 Year Swap Rate[4] (%) | 2.07 | 2.27 | 2.64 |
| Long BBB Corp. Yield[3] – Citi Pension Discount Rate[2] (bps) | 149 | 142 | 126 |

Citi Pension Liability Index Discount Rate² vs. S&P 500 Index⁴

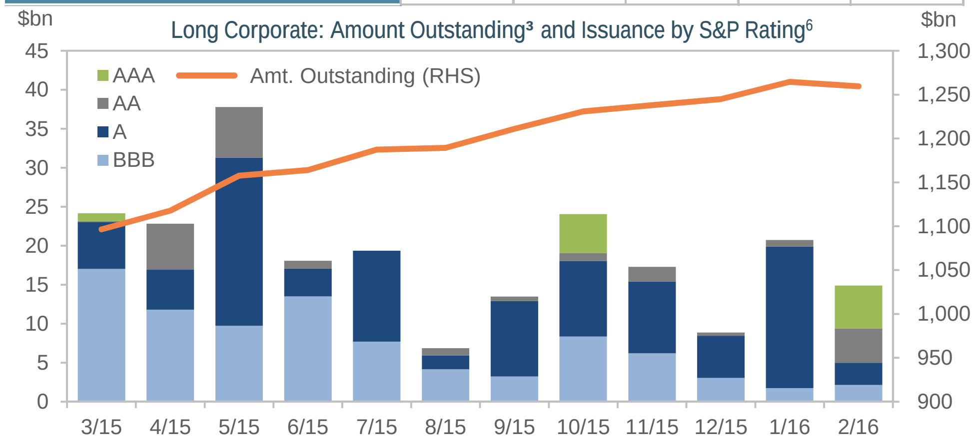



## IR+M LDI Corner: Taking What the Market Gives You

- In 2016, corporate spreads have widened to post-crisis highs without a corresponding increase in funded status for many plans. We believe this environment may present unique opportunities for plan sponsors to hedge liability credit risk by purchasing corporate bonds at attractive levels.
- However, many plan sponsors have adopted glide paths that only increase long corporate bond exposure as funded status improves. By linking this shift solely to funded status, plan sponsors may miss the opportunity to purchase corporate bonds at relatively cheap levels.
- Additionally, sponsors are often hesitant to extend duration at a time when they anticipate rising discount rates. One potential way to address this concern may be to use derivative products in tandem to maintain the existing duration exposure.
- Bifurcation of the risks affecting pension liabilities in this manner allows the sponsor to take advantage of opportunities as the market presents them.

| Glidepath Monitor | 2/29/16 | 1/31/16 | 12/31/15 | 2/28/15 | 2/28/13 |
|---|---|---|---|---|---|
| Funded Status[1] (%) | 79.1 | 80.8 | 82.7 | 81.2 | 80.1 |
| Long Credit Rates[5] (%) | 4.88 | 4.99 | 5.02 | 4.23 | 4.49 |
| Long Credit Spreads[5] (bps) | 257 | 252 | 225 | 180 | 178 |
| Curve[3] (Long Cred - Int. Cred) (bps) | 210 | 217 | 210 | 198 | 261 |
| Curve[3] (Long G/C - Agg) (bps) | 164 | 170 | 161 | 148 | 201 |

Long Corporate: Amount Outstanding³ and Issuance by S&P Rating⁶




Trailing 12 Month Long Corporate New Issuance⁶ (bn)

| AAA | AA | A | BBB | *Total* |
|---|---|---|---|---|
| $11.5 | $23.5 | $104.7 | $88.6 | *$228.3* |

[1]Milliman; [2]Citigroup; [3]Barclays; [4]Bloomberg; [5]Long rates and long spreads represented by Barclays Long Credit Index yield and spread; [6]JP Morgan