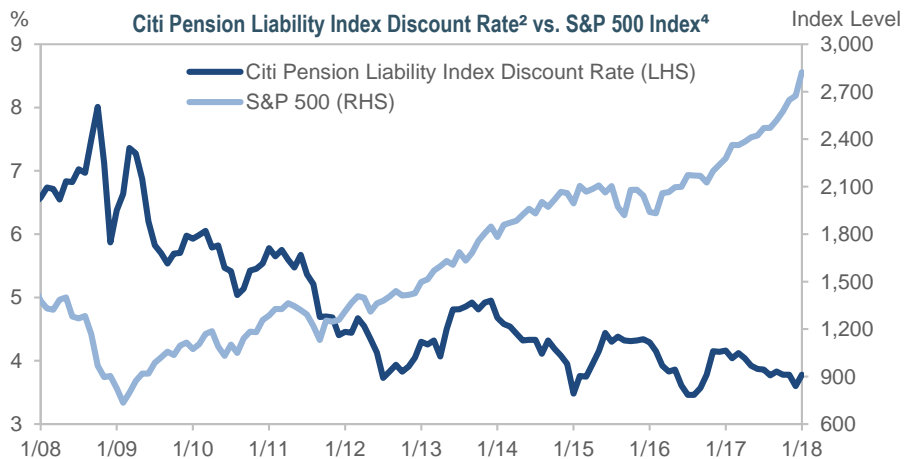


LDI Highlights

- Corporate pension funded status increased by the largest margin since November 2016, ending the month at 87%, a 3% improvement.¹
 - Despite long corporate spreads tightening during January, discount rates rose by 18bps, following Treasury yields higher.²
 - The 5.6% return generated by the S&P 500 Index was the largest since March 2016, and fueled robust asset portfolio gains.⁴
- The corporate primary market returned from the holidays, pricing \$126 billion during January; the long-end comprised 23% of the total – 8% above the 10-year average.⁵
- During January, numerous large defined benefit plans announced additional contributions for 4Q17, with further contributions planned for 2018.
 - Thus far, plans have announced at least \$7.3 billion in additional contributions for 2018.⁶

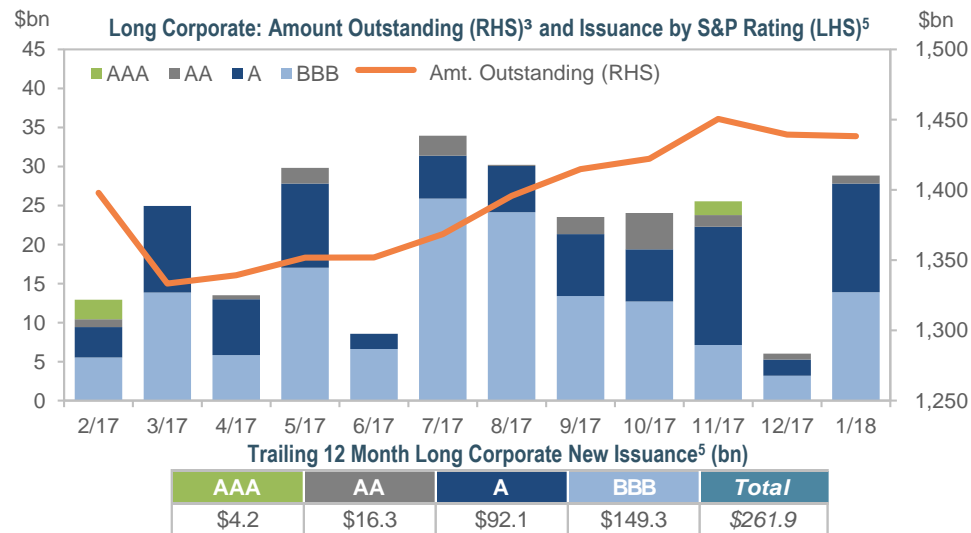
Rates Monitor	1/31/18	12/31/17	12/31/16
Citigroup Pension Discount Rate ² (%)	3.78	3.60	4.14
Bloom Barc Long Corporate Yield ³ (%)	4.13	4.02	4.54
Bloom Barc Long Corporate A+ Yield ³ (%)	3.84	3.69	4.18
Bloom Barc Long BBB Corp Yield ³ (%)	4.44	4.37	4.93
30 Year Swap Spread ⁴ (bps)	-12	-20	-48



IR+M LDI Corner: Contributions Continue in the New Year

- In the second half of 2017, corporate plan sponsors increased de-risking activity as they sought to lock in funded status gains. The biggest driver of funded status improvements was additional contributions, which increased as sponsors aimed to reduce costly variable-rate PBGC premiums.
- The de-risking trend continued in January, as buoyant equity markets and rising discount rates led to further funded status gains. The trend of higher contributions could be further fueled by the recent reduction in corporate tax rates.
- Companies with 12/31/17 fiscal year ends have until mid-September 2018 to take advantage of higher 2017 corporate tax rate deductions on contributions. This incentive played out in January as we saw a surge in funding.
- Anecdotally, plan sponsors tend to be more conservative with contributions than market-driven gains, often utilizing contributions to further de-risk. During the coming months, we're likely to see continued demand as plans capitalize on these tailwinds.

Glidepath Monitor	1/31/18	12/31/17	12/31/16	12/31/14
Funded Status ¹ (%)	87.2	84.1	83.3	81.5
Long Corporate Spreads ³ (bps)	126	137	164	186
Curve ³ (Long Corp - Int. Corp) (bps)	59	64	60	79



¹Milliman; ²Citigroup; ³Bloomberg Barclays; ⁴Bloomberg; ⁵JP Morgan; ⁶P&I

All data in the above commentary is as of 1/31/18. 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.