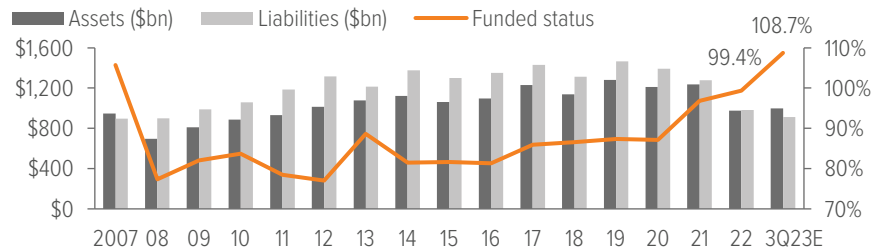


# LDI Quarterly Update

## Funded status evolution of U.S. pension plans

Illustration for a 50/50 fixed income/equity portfolio with a duration of 12

2Q23	107.2%
Impact due to change in assets	-7.8% <sup>1</sup>
Impact due to change in liabilities	+9.3% <sup>2</sup>
<b>3Q23</b>	<b>108.7%</b>



As of 09/30/23. Source: S&P, company reports, Voya IM calculations and 2023 estimates. <sup>1</sup>Growth assets based on S&P 500 return of -3.3%; hedging assets (which match liability duration) had a 7.9% loss, similar to liabilities, by design, also reflecting benefit payments. <sup>2</sup>Liabilities declined 7.9% due to 73 bp increase in rates and plan duration of 12 years, plus service accruals and benefits payments.

### Notes on the quarter

- **Funded status improved once again** for U.S. pension plans, rising for the fourth consecutive quarter to 108.7%—the highest level since 2007.
- **The curve bear steepened**, with the 10yr UST and 30yr UST increasing 75 bp and 86 bp, respectively, on the quarter.
- **Credit spreads narrowed**, driving a 73 bp net increase in the discount rate. For a plan with a duration of 12, an 8% decrease in liability translates to a 9.3% improvement in funded status.
- **Assets declined** for S&P 500 pension plans, resulting in a -7.8% change in funded status, detracting from the gains made on liabilities.

### In the spotlight: Less investment grade corporate bond issuance.

Strong demand for IG long-duration credit from pension plans, coupled with declining new issue volumes as companies spurned high borrowing costs, put downward pressure on long-dated yields. In 3Q, 61% of new issuance had a tenor under 10 years easily the highest level over the past decade), while issuance with tenors above 20 years fell to a decade low, accounting for only 12% of new issuance. (See chart on page 2.)

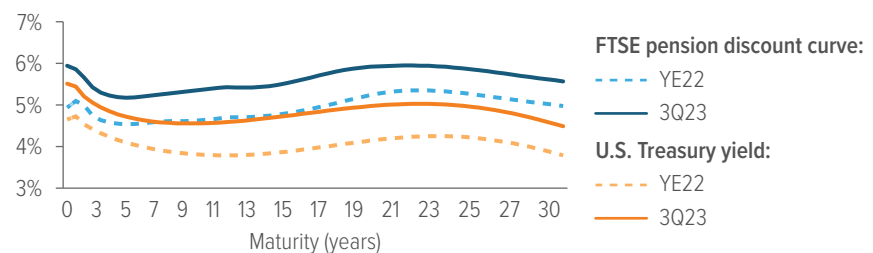
### Markets

	09/30/23	06/30/23	12/31/22	12/31/21
FTSE AA yield <sup>3</sup>	5.61%	4.88%	4.95%	2.63%
BofA 10+ AAA–A U.S. Corp yield	5.85%	5.17%	5.30%	2.91%
Bbg Long Corp yield	6.14%	5.44%	5.60%	3.10%
Bbg Long Corp – OAS spread (bp)	133	143	149	123
Bbg Long Gov/Credit yield	5.54%	4.75%	4.91%	2.58%
Bbg Long Gov/Credit – OAS spread (bp)	70	78	80	70
10Y U.S. Treasury yield	4.57%	3.82%	3.88%	1.52%
30Y U.S. Treasury yield	4.71%	3.85%	3.98%	1.90%
S&P 500 return	-3% (3Q23)	9% (2Q23)	-19% (CY22)	27% (CY21)

Source: FTSE, Barclays Live, ICE Index Platform, S&P.

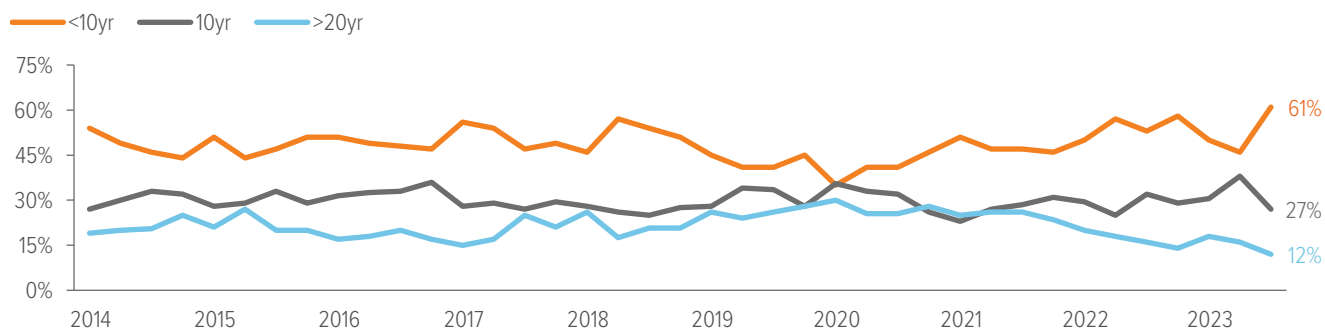
<sup>3</sup>Based on FTSE's "short" duration plan, approximately 11 years.

### Spot rate curves



Source: ICE Index Platform, FTSE pension discount curve.

- The U.S. Treasury spot rate curve is flatter than the FTSE pension discount curve as of 09/30/23.
- For the 15-year tenor, the UST spot rate is higher as of 09/30/23 versus 12/31/22.
- Similarly, for the 15-year tenor, the AA rated corporate bond spot rate is higher as of 09/30/23 versus 12/31/22.

**% corporate issuance by tenor**

As of 09/30/23. Source: Goldman Sachs.

**A note about risk**

Examples of LDI (liability-driven investing) performance included in this material are for illustrative purposes only. Liability valuations can increase due to falling interest rates or credit spreads, among other things, as the present value of future obligations increases with falling rates and falling spreads. Liabilities can also increase due to actual demographic experience differing from expected future experience assumed by the plan's actuary. Diversification neither assures nor guarantees better absolute performance or relative performance versus a pension plan's liabilities. In addition, investing in alternative investment products such as derivatives can increase the risk and volatility in an investment portfolio. Because investing involves risk to principal, positive results and the achievement of an investor's goals are not guaranteed. There are no assurances that any investment strategy will be profitable on an absolute basis or relative to the pension plan's liabilities. Information contained herein should not be construed as comprehensive investment advice. For comprehensive investment advice, please consult a financial professional.

**Past performance is no guarantee of future results.** This information is proprietary and cannot be reproduced or distributed. Certain information may be received from sources Voya Investment Management considers reliable; Voya IM does not represent that such information is accurate or complete. Certain statements contained herein may constitute "projections," "forecasts" and other "forward-looking statements" which do not reflect actual results and are based primarily upon applying retroactively a hypothetical set of assumptions to certain historical financial data. Actual results, performance or events may differ materially from those in such statements. Any opinions, projections, forecasts and forward looking statements presented herein are valid only as of the date of this document and are subject to change. Nothing contained herein should be construed as (i) an offer to buy any security or (ii) a recommendation as to the advisability of investing in, purchasing or selling any security. Voya IM assumes no obligation to update any forward-looking information.

The opinions, views and information expressed in this presentation regarding holdings are subject to change without notice. The information provided regarding holdings is not a recommendation to buy or sell any security. Portfolio holdings are fluid and are subject to daily change based on market conditions and other factors.

**Index definitions**

*Index returns do not reflect fees, brokerage commissions, taxes or other expenses of investing. Investors cannot invest directly in an index.* **The FTSE Pension Liability Index** reflects the discount rate that can be used to value liabilities for GAAP reporting purposes. Created in 1994, it is a trusted source for plan sponsors and actuaries to value defined-benefit pension liabilities in compliance with the SEC's and FASB's requirements on the establishment of a discount rate. The index also provides an investment performance benchmark for asset-liability management. By monitoring the index's returns over time, investors can gauge changes in the value of pension liabilities. **The ICE BofA AAA-A U.S. Corporate Index** is a subset of the ICE BofA U.S. Corporate Master Index, which tracks the performance of USD-denominated investment grade rated corporate debt publicly issued in the U.S. domestic market. This subset includes all securities with a given investment grade rating of AAA through A. **The Bloomberg U.S. Long Credit Index** represents the long component of the Bloomberg U.S. Credit Index, which includes publicly issued U.S. corporate and specified foreign debentures and secured notes that meet specified maturity, liquidity and quality requirements. **The Bloomberg U.S. Long Government/Credit Index** represents the long component of the Bloomberg U.S. Government/Credit Index, which includes Treasuries, agencies and publicly issued U.S. corporate and foreign debentures and secured notes that meet specified maturity, liquidity and quality requirements. **The S&P 500 Index** consists of approximately 500 leading U.S. companies with approximately 75% coverage of the U.S. stock market capitalization.

**For qualified institutional investor use only. Not for inspection by, distribution to or quotation to the general public.**