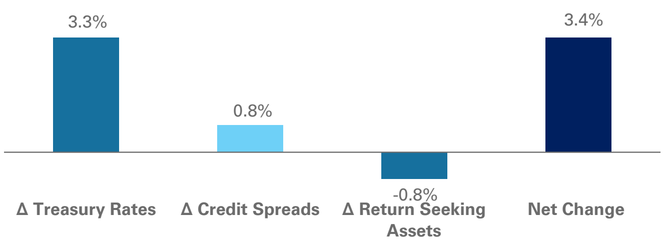
NEPC PENSION MONITOR

MAY 2023

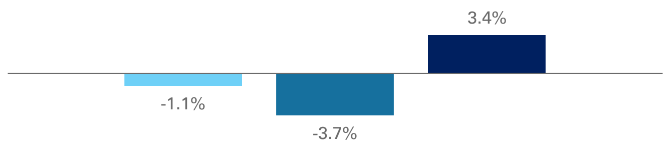
In May, pension plan sponsors experienced rising liability discount rates, as interest rates moved close to year-to-date highs. However, losses from global public equities put downward pressure on the funded status for many corporate pension plans. Plans likely experienced gains in funded ratios due to lower liabilities from increasing liability discount rates. The Treasury yield curve experienced increases across all tenors for the month with the largest increases occurring at shorter maturities. Total-return-focused plans likely experienced gains in funded status due to lower liabilities which were partially offset by asset losses fueled by declines in equity markets. NEPC's hypothetical total-return pension plan experienced a funded status increase of 3.4% compared to an improvement of 0.7% for our LDI-focused plan.

HYPOTHETICAL OPEN/TOTAL-RETURN PLAN

Funded Status Attribution

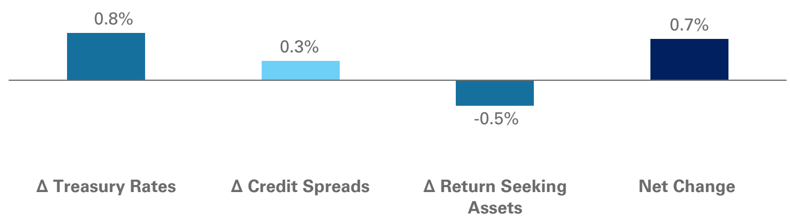


The funded status of the total-return plan increased due to higher Treasury rates and credit spreads. This increase was partially offset by declines in return-seeking assets.

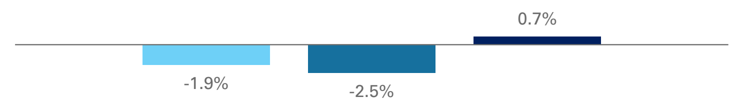


HYPOTHETICAL FROZEN/LDI-FOCUSED PLAN

Funded Status Attribution



The funded status of the LDI-focused plan increased due to higher Treasury rates and credit spreads. This increase was partially offset by losses from return-seeking assets. The plan is 85% hedged as of May 31.

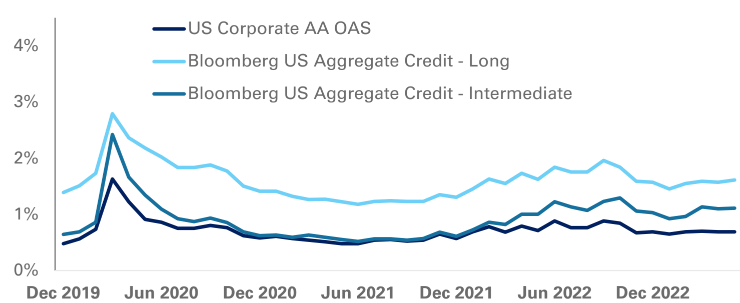


RATE MOVEMENT COMMENTARY

The Treasury yield curve increased by approximately 20 basis points in May, and remained inverted from the one- to 10-year tenors. The 10-year yield increased 20 basis points to 3.64%, while the 30-year yield was up 18 basis points to 3.85%. Rates for tenors up to 15 years have now increased year-to-date. Long and intermediate credit spreads rose in May.

The movement in Treasury rates and credit spreads resulted in an increase in the pension discount rates used to discount pension liabilities. The discount rates for NEPC's hypothetical pension plans were up approximately 26 basis points for the open total-return plan rate at 5.24%, while the discount rate for the frozen LDI-focused plan was 5.15%.

Credit Spread Movement



RETIREE BUYOUT INDEX

The Buyout Index for retirees is estimated to be approximately **104.9%** of PBO, as of May 31, 2023

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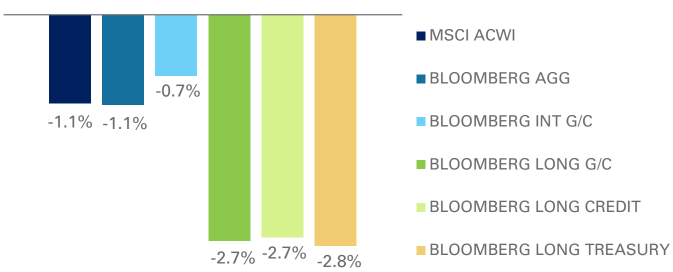
NEPC PENSION MONITOR

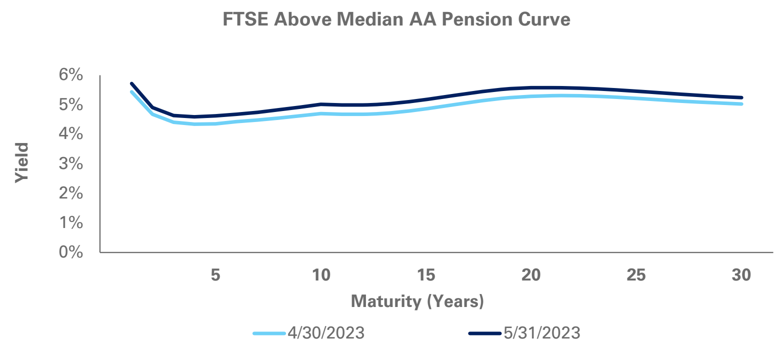
MAY 2023

PLAN SPONSOR CONSIDERATIONS

Equity markets were generally lower in May while fixed-income markets also experienced losses due to higher Treasury rates. Treasury yield volatility picked up last month with the yield curve shifting higher and remaining inverted between the one- and 10-year tenors. Modest increases in credit spreads resulted in slightly higher discount rates used for valuing pension liabilities. At NEPC, we anticipate continued market volatility and the potential for market disruption. Plan sponsors should remain diligent about monitoring sources of change in funded status versus expectations as equities and interest rates are likely to remain volatile. This includes closely monitoring hedge ratio ranges to avoid becoming overhedged to interest rates with a flatter yield curve.

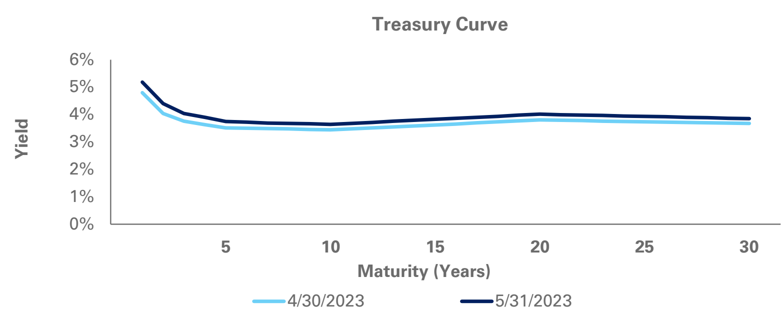
MARKET ENVIRONMENT AND YIELD CURVE MOVEMENT





In May, U.S. equities gained 0.4%, according to the S&P 500 Index. During the same period, non-U.S. stocks underperformed U.S. equities with international developed markets losing 4.2%, according to the MSCI EAFE Index. Emerging market equities were down 1.7% last month, according to the MSCI EM Index. Broadly, global equities lost 1.1% during the same period, according to the MSCI ACWI Index.

The Treasury curve increased by approximately 20 basis points from April to May at all tenors and remained inverted from the one- to 10-year tenors. This resulted in losses for fixed-income markets, with long-credit fixed income experiencing modest losses due to wider credit spreads. In May, the Bloomberg Long Treasury Index was down 2.8% and the Bloomberg Long Credit Index declined 2.7%.



DISCLOSURES

Liability returns are based on the FTSE Above Median Pension Discount Curve. Liabilities for the two hypothetical plans are based on sample benefit payments of two unique plans, set equal to stable duration targets as of December 31, 2018. The total-return plan reflects an open plan with a 15-year duration, while the LDI-focused plan represents a frozen plan with a 10-year duration. The benefit payments are not rolled forward each month to maintain the duration targets. No future benefit accruals or benefit payments are assumed in order to isolate the performance of plan's liabilities due to changes in interest rates. The funded status of each hypothetical plan was reset at 100% funded as of December 31, 2021.

The total-return plan assumes an allocation of 60% global equity, 40% core bonds. The LDI-focused plan assumes an asset allocation of 40% global equity and 30% long credit, 20% long Treasuries, 10% intermediate government/credit, with a greater emphasis on hedging liability duration. Monthly rebalancing is assumed. We do not assume any fees, expenses, benefit payments or contributions are made during the year in order to isolate the impact of market returns on the hypothetical allocations.

NEPC's Retiree Buyout Index is estimated using midpoint annuity purchase rates published by Brentwood Advisors, discounted against the cash flows of a sample retiree population, and compared with the same discounted cashflows using the FTSE Above Median Pension Discount Curve. Actual annuity pricing may vary substantially based on multiple factors.

Asset benchmarks used to measure asset returns are sourced from FactSet: MSCI ACWI Index, Barclays Aggregate Index, Barclays Intermediate Gov/Credit Index, Barclays Long Gov/Credit Index, Barclays Long Credit Index, Barclays Long Treasury Index, Barclays US Aggregate Intermediate Credit spread, Barclays US Aggregate Long Credit spread, and US Corporate AA Option-Adjusted Spread.

Past performance is no guarantee of future results.