

## Pension plan funded status skyrockets as interest rates increase

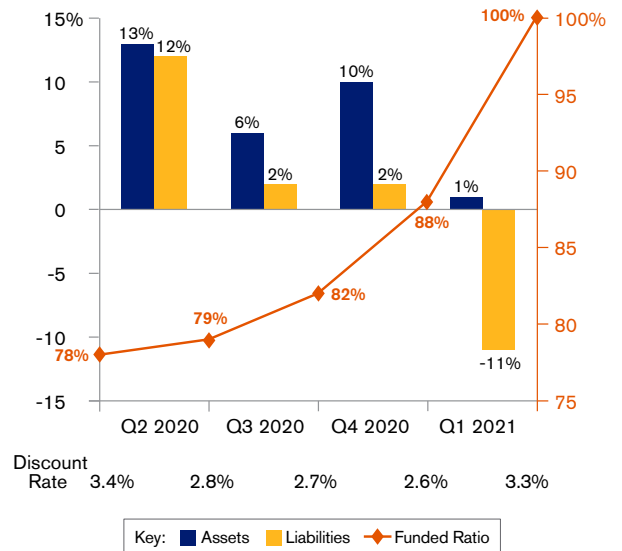
During the first quarter of 2021 (Q1), the funded status of the model pension plan examined in each issue of *Prism* improved by 12 percentage points, to 100 percent. (See Graph 1.) This increase in funded status is primarily attributable to an 11 percent reduction in liabilities (related to an increase in corporate bond yields, as illustrated in Graph 2) and a 1 percent asset gain.

### Changes in the yield curve

High-quality corporate bond yields rose materially during Q1 — the net result of a 75 basis-point increase in U.S. nominal Treasury yields and credit spreads that were mostly flat (see “Aspects of investment performance” on the next page for more details). This is illustrated in Graph 2 by the above-median curves.

Changes in the shape of the yield curve may have varying impact on plans’ liabilities based on their maturity. (For background on yield curves [read our primer.](#))

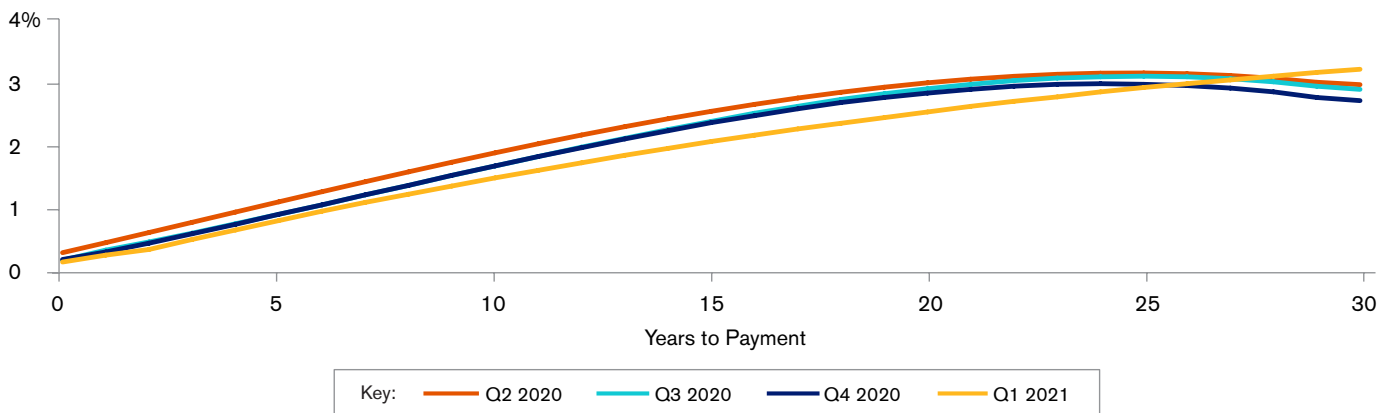
Graph 1: Change in Assets,<sup>1</sup> Liabilities and Funded Ratio<sup>2</sup>



<sup>1</sup> The model plan’s portfolio has a simple, passively invested asset allocation of 45 percent to domestic equities, 15 percent to international equities and 40 percent to global bonds.

<sup>2</sup> This is the ratio of a defined benefit (DB) plan’s assets to accrued liabilities. The funded ratio data in the graph is the ratio on the last day of each quarter. In May 2020 (after publication of the Q1 2020 *Prism*), the funded percentage for the model DB plan was reset as of January 1, 2020, to reflect the average actual funded percentage of large pension plans.

Graph 2: Changes in the Yield Curve<sup>1</sup>



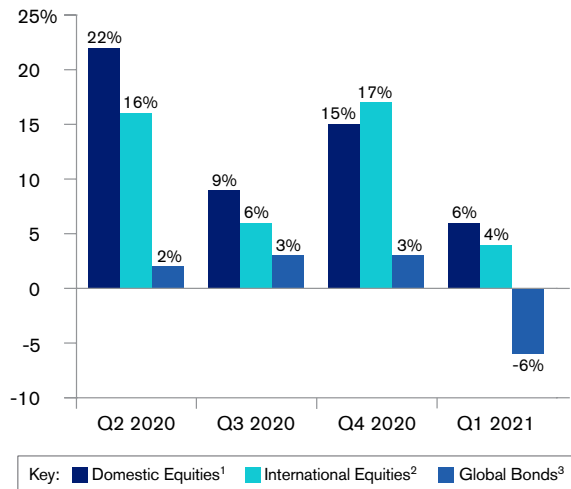
<sup>1</sup> This curve reflects the average yield, at each duration, for corporate bonds rated AA that have yields above the median for that duration.

## Aspects of investment performance

This section discusses aspects of investment performance illustrated in Graph 3 that contributed to the model plan's 1 percent gain in asset value in Q1.

During Q1, financial markets continued to rebound, providing positive returns for a fourth straight quarter. The U.S. Congress passed a \$1.9 trillion economic stimulus bill that President Biden signed into law on March 11, 2021. Furthermore, government regulators across the world have approved several COVID-19 vaccines for public use.

Graph 3: Investment Performance



<sup>1</sup> Russell 3000

<sup>2</sup> Morgan Stanley Capital International All Country World Index Ex-U.S. (MSCI ACWI Ex-U.S.)

<sup>3</sup> Citigroup World Government Bond Index (WGBI) Unhedged, which includes U.S. and international bonds

Stock market performance was strong both domestically and internationally. U.S. equities developed international equities and emerging market equities all posted positive returns. Domestically, small caps beat large caps, and value stocks beat growth stocks — as positive vaccine news continued to provide momentum to the companies that were adversely affected most by the pandemic.

Fixed income returns were poor across most maturities and qualities, both internationally and domestically due to increasing yields during the quarter.

U.S. Treasury yields ended the quarter much higher than where they began, while investment-grade credit spreads remained in place. As a result, U.S. government and investment-grade bond returns were down materially, particularly longer-maturity bonds. In March 2021, the Federal Open Market Committee (FOMC) decided to maintain the target range for the federal funds rate at 0 to 0.25 percent. The FOMC further signaled that the target range could remain near zero for an extended period. The yield on the 10-year Treasury note ended the quarter at 1.74 percent, up 81 basis points from where it began.

## Important: examine your own DB plan's experience

Plan sponsors should examine changes in their own DB plans' assets, liabilities and funded ratios from the vantage point of both accounting and funding metrics.\* Segal Marco Advisors and Segal can help employers project their DB plans' funded ratios through:

- **Deterministic modeling**, which projects results under a specific set of assumptions but does not offer insight into the likelihood of these outcomes
- **Stochastic asset-liability modeling (ALM)**, which offers a more complete view of the range of a plan's possible future statuses and can act as an early warning sign of potential challenges through a long-term time horizon

\* Individual plan results will differ from this model for a host of reasons, including different funded positions, liability duration and contribution patterns.

For more information about how ALM can help you manage your plan, contact your Segal Marco Advisors investment consultant or your Segal retirement consultant — or get in touch with us via our websites: [segalmarco.com](https://segalmarco.com) and [segalco.com](https://segalco.com).

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