

## Pension Plan Funded Status Increases

During the first quarter of 2017 (Q1 2017), the funded status of the model pension plan examined in each issue of *Prism* rose 3 percentage points to 84 percent due to a 4 percent gain in asset value offsetting a 1 percent liability increase. See Graph 1.

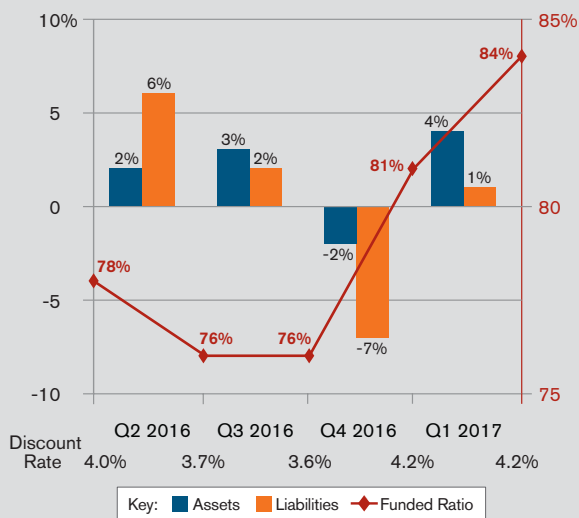
### About Prism

*Prism* examines the effect of changes in the assets and liabilities of a model pension plan on its funded ratio over the four most recent quarters, viewing such changes through a marked-to-market lens. The primary focus is to understand the combined impact of asset movement and interest rate shifts on perhaps the most important financial metric to plan sponsors: the plan's funded status.

## Aspects of Investment Performance

As shown in Graph 2, domestic and international equities performed well during Q1. Internationally, developed- and emerging-market stocks beat domestic stocks. Among U.S. stocks, large cap beat small cap and growth outpaced value. Fixed-income returns were modestly positive, both domestically and internationally. The Federal Open Market Committee's March announcement of another interest-rate hike was largely expected and had no dramatic impact on rates. A weakening dollar generally boosted international equity and fixed-income market returns. For the model plan, these aspects of investment performance contributed to the 4 percent gain in asset value in Q1 shown in Graph 1.

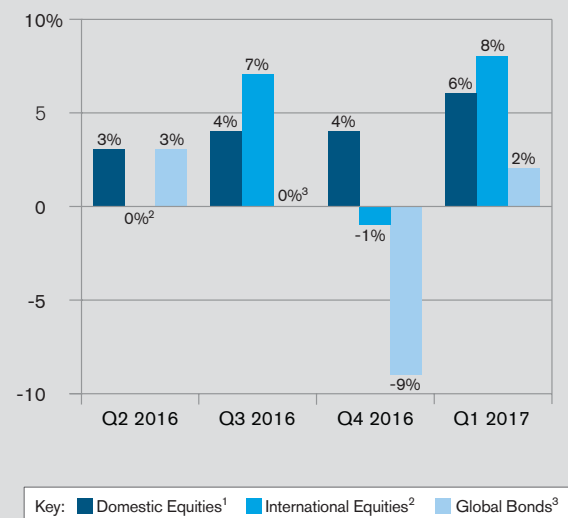
Graph 1: Change in Assets,<sup>1</sup> Liabilities and Funded Ratio<sup>2</sup>



<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 at a point in time at the beginning or end of the quarter. The funded percentage for the model DB plan was reset as of January 1, 2017, to reflect the average actual funded percentage of large pension plans.

Graph 2: 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.) (The return for international equities in Q2 2016 was -0.4 percent.)

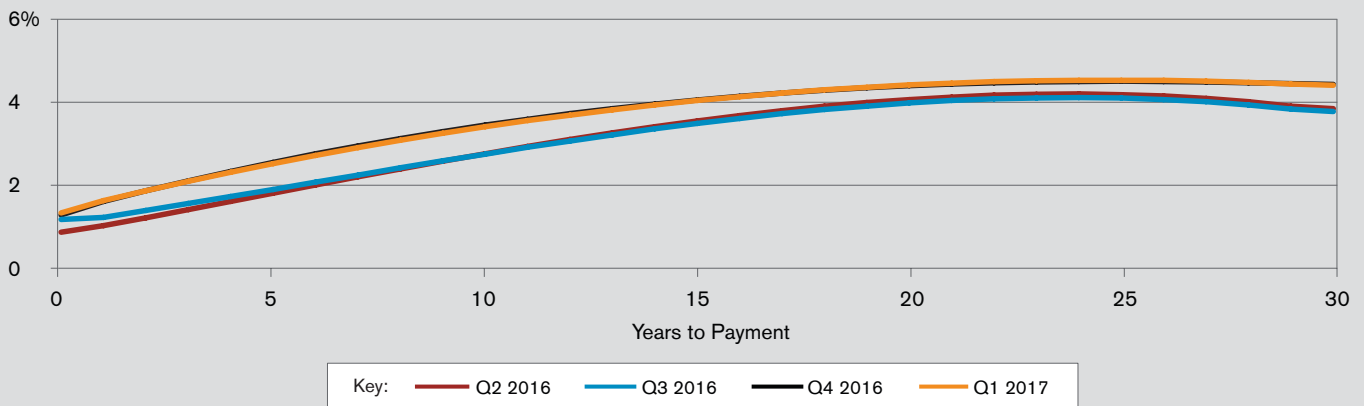
<sup>3</sup> Citigroup World Government Bond Index (WGBI) Unhedged, which includes U.S. and international bonds. (The return for global bonds in Q3 2016 was 0.30 percent.)

## Changes in the Yield Curve

High-quality corporate yields were mostly unchanged during Q1 2017 — the net result of a 5-basis-point\* decline in U.S. nominal Treasury yields, offset by an increase in credit spreads of 5 basis points. During the quarter, the yield curve flattened a little, but its general shape remained similar to that of previous quarters: an upward-sloping yield curve that peaks between 20 and 25 years then levels off, as illustrated by the above-median curves shown in Graph 3 below. The marginal decrease in yield-curve level resulted in minimal change to the effective interest rate and slightly increased the model pension plan's liability by about 1 percent.

Any change in the shape of the yield curve could have a different impact on liabilities for plans with different maturities. (For background on yield curves, read our [online primer](#).)

Graph 3: 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. Sibson Consulting and Segal Marco Advisors construct the curve using proprietary tools.

## 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 Sibson Consulting 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; and
- **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.

\* As a reminder, 10 basis points (bps) equals 0.1 percent.

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

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For more information about how ALM can help you manage your plan, contact your [Segal Marco Advisors](#) investment consultant or your [Sibson](#) retirement consultant.

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