

## Pension Plan Funded Status Increases Slightly Due to Positive Equity Returns in Q3 2016

During the third quarter of 2016 (Q3 2016), the funded status of the model pension plan examined in each issue of *Prism* rose by 1 percentage point: from 76 percent to 77 percent. This increase was the result of a 3 percent asset increase and a 2 percent liability increase during the quarter. See Graph 1.

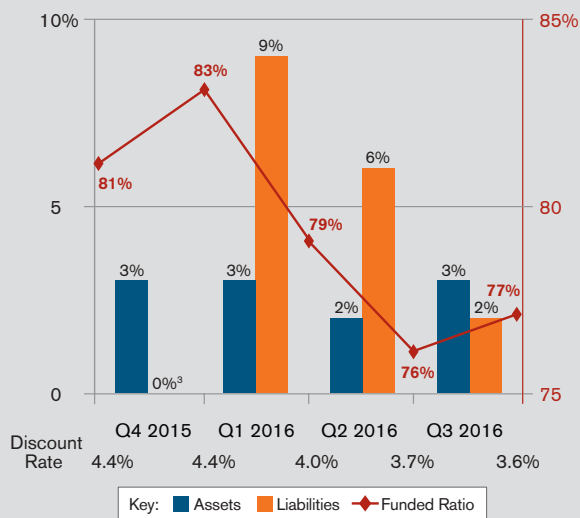
### About Prism

*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 Graph 2 indicates, global equities performed very strongly during Q3. Domestic and international returns were all significantly positive. Developed international and emerging market stocks outperformed domestic stocks. On the international side, emerging market stocks slightly outperformed developed market stocks. In the U.S., small-cap stocks beat large-cap stocks and growth stocks outpaced value stocks. Fixed-income returns were modestly positive during the quarter, primarily in July. International fixed-income markets were positive in both local currency and U.S. dollar terms, and were slightly stronger than U.S. fixed-income returns for the quarter. Local currency returns were off a bit versus U.S. currency returns, as the dollar weakened modestly during the quarter.

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

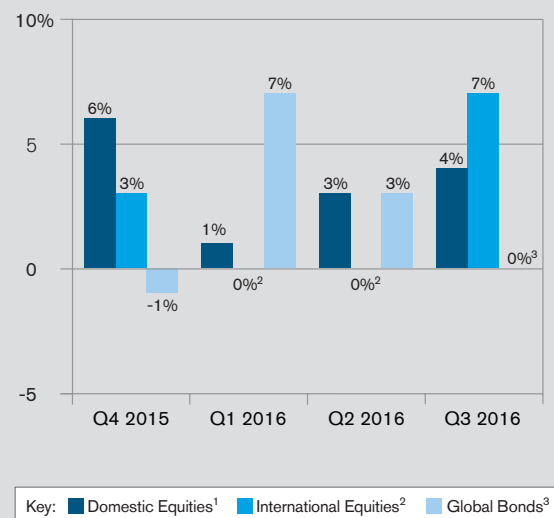


<sup>1</sup> The model plan's portfolio has a simple, passively invested asset allocation of 45 percent to domestic equities, 15 percent to international equities and 40 percent to global bonds.

<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, 2016, to reflect the average actual funded percentage of large pension plans.

<sup>3</sup> In Q4 2015, liabilities increased 0.2 percent.

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 was -0.26 percent in Q1 2016 and -0.4 percent in Q2 2016.)

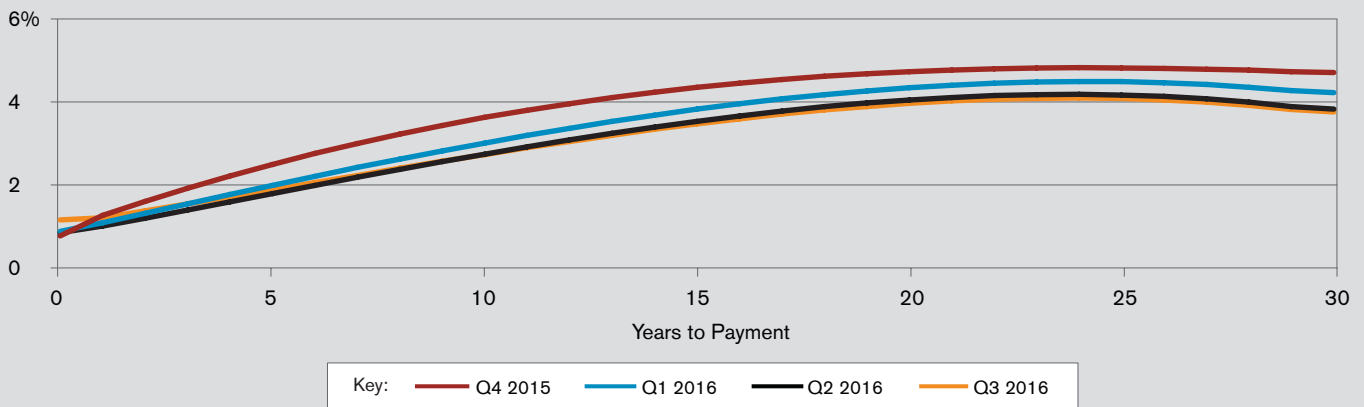
<sup>3</sup> Citigroup World Government Bond Index (WGBI) Unhedged, which includes U.S. and international bonds. (The return for global bonds in Q3 2016 was 0.30 percent.)

## Changes in the Yield Curve

High-quality corporate yields were unchanged during Q3 2016, the net result of a rise of 10 basis points\* in Treasury rates while credit spreads declined by 10 basis points. During the quarter, the yield curve flattened a little, with short-term yields increasing slightly. The general shape of the yield curve remained broadly similar to 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 the yield curve level resulted in a small decline in the effective interest rate and, consequently, increased the model pension plan's liability by about 2 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.

## 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 Rogerscasey 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 Rogerscasey](#) investment consultant or your [Sibson](#) retirement consultant.

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