

## Pension Plan Funded Status Falls Due to Equity Market Losses in Q3 2015

During the third quarter of 2015 (Q3 2015), the funded status of the model pension plan examined in each issue of *Prism* decreased by 5 percentage points: from 87 percent to 82 percent. This decrease was the result of a 4 percent asset decrease and a 2 percent liability increase during the quarter. See Graph 1.

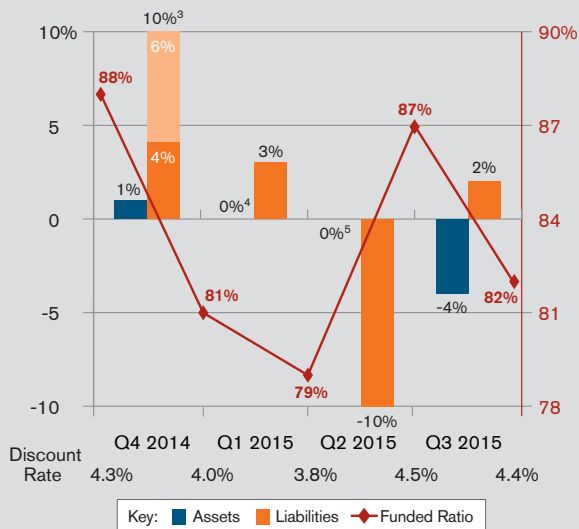
### About Prism

*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

After modest positive returns during Q1 and Q2, global equities — both domestic and international — suffered significant negative returns during Q3, as shown in Graph 2. Concerns over global economic growth, particularly in China, and weaker corporate profits contributed to both U.S. and international equities' worst quarterly performance since 2011. On the international side, emerging-market stocks suffered greater losses than developed-market stocks. In the U.S., large-cap stocks beat their small-cap counterparts, while growth stocks slightly outpaced value stocks. Fixed income contributed positive returns for the quarter. Treasury rates fell due in part to the Federal Reserve's September decision not to raise interest rates. International fixed-income markets were positive, with returns that were on par with those of the U.S. fixed-income market.

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.

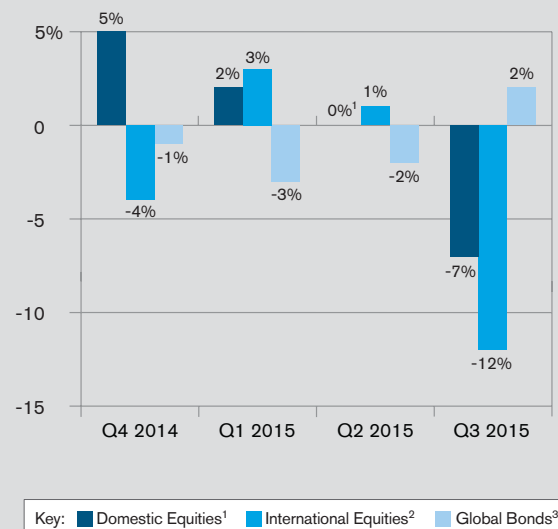
<sup>2</sup> This is the ratio of a defined benefit (DB) plan's assets to accrued liabilities. The funded ratio data in the graph is the ratio at a point in time at the beginning or end of the quarter. The funded percentage for the model DB plan was reset as of January 1, 2015, to reflect the average actual funded percentage of large pension plans.

<sup>3</sup> The darker orange portion of the bar represents liability change due to interest rate movements; the lighter portion represents liability change due to new mortality assumptions adopted by many plan sponsors at year-end to reflect improved longevity.

<sup>4</sup> In Q1 2015, assets increased 0.3 percent.

<sup>5</sup> In Q2 2015, assets decreased 0.5 percent.

Graph 2: Investment Performance



<sup>1</sup> Russell 3000 (The return for domestic equities was 0.14 percent in Q2 2015.)

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

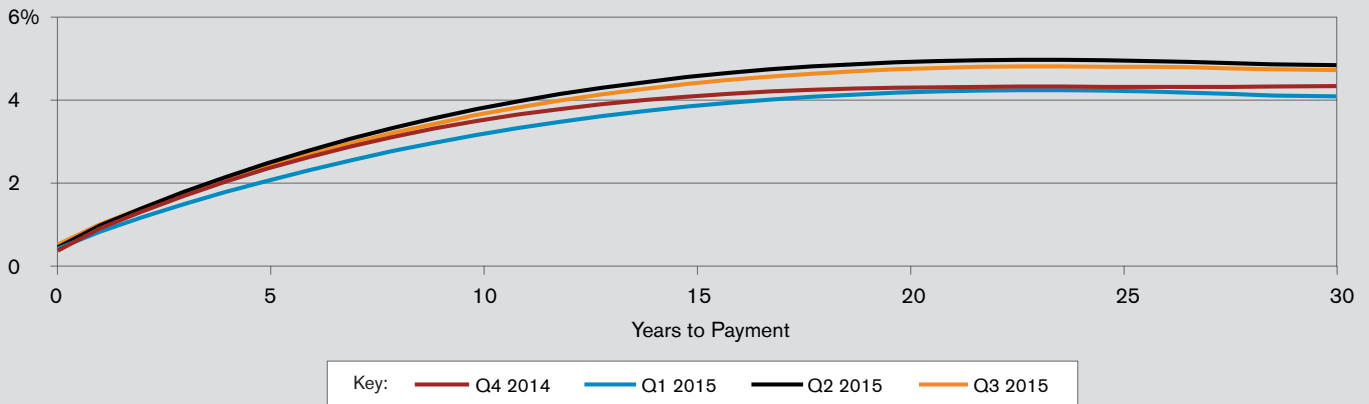
<sup>3</sup> Citigroup World Government Bond Index (WGBI) Unhedged, which includes U.S. and international bonds. (Note: This shorter-duration bond index is not perfectly correlated with the longer-term liability of the model pension plan, which is based on the yield curve discussed on page 2.)

## Changes in the Yield Curve

High-quality corporate yields decreased 15 basis points\* during Q3 2015. This decrease is the net result of a 30-basis-point decrease in Treasury rates and a 15-basis-point increase in credit spreads. The yield curve flattened during the quarter, with longer-term yields decreasing more than short-term yields, although the general shape of the yield curve remained similar to the previous quarters: an upward-sloping yield curve that peaks at about 25 years and then levels off, as illustrated by the above-median curves shown in Graph 3.

The decrease in the yield curve level during Q3 2015 resulted in a decrease in the effective interest rate and, consequently, an increase in the model pension plan's liability of 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, see the following webpage: <http://www.sibson.com/media/2051/s2015primer.pdf>)

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



*Segal Rogerscasey and Sibson Consulting can help employers to project their DB plans' funded ratios through asset-liability modeling (ALM). For more information about ALM, contact your Segal Rogerscasey investment consultant or your Sibson retirement consultant.*

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