Sibson Consulting

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Prism

A QUARTERLY REVIEW OF FUNDED STATUS

Strategic HR Consulting | Investment Solutions | Fourth Quarter 2016 Pension Plan Experience

Pension Plan Funded Status Increases Due to Rising Interest Rates in Q4 2016

During the fourth quarter of 2016 (Q4 2016), the funded status of the model pension plan examined in each issue of *Prism* rose by 5 percentage points: from 77 percent to 82 percent. This increase was the result of a 7 percent liability decrease offsetting a 2 percent asset decrease during the quarter. See Graph 1.

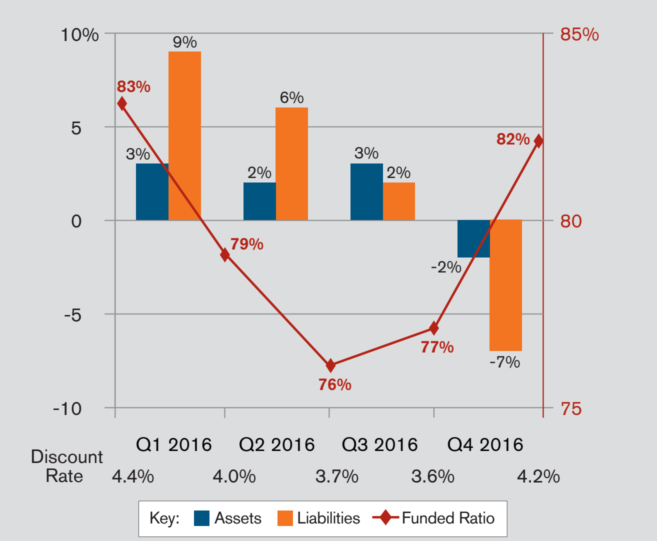
About *Prism*

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 indicated in Graph 2, domestic equities performed well during Q4, while international equities were modestly negative. Internationally, stocks in emerging markets lost more ground than in developed markets. In the U.S., small-cap stocks beat large-cap stocks, and value stocks outpaced growth stocks. Fixed-income returns were down sharply both domestically and internationally. U.S. nominal Treasury yields increased materially, particularly after the U.S. presidential election. The Federal Open Market Committee's announcement of a rate hike in December — only its second in 10 years — was largely expected and had no dramatic impact on rates. All international market returns (equities and fixed income) were hampered by a strengthening dollar during the quarter. For the model plan, these aspects of investment performance contributed to the 2 percent decline in assets in Q4 shown in Graph 1.

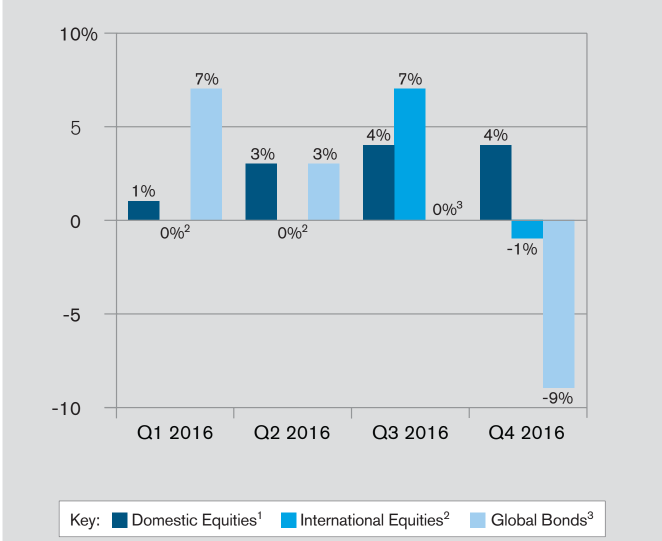
Graph 1: Change in Assets,[1] Liabilities and Funded Ratio[2]



[1] 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.

[2] 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.

Graph 2: Investment Performance



[1] Russell 3000

[2] 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.)

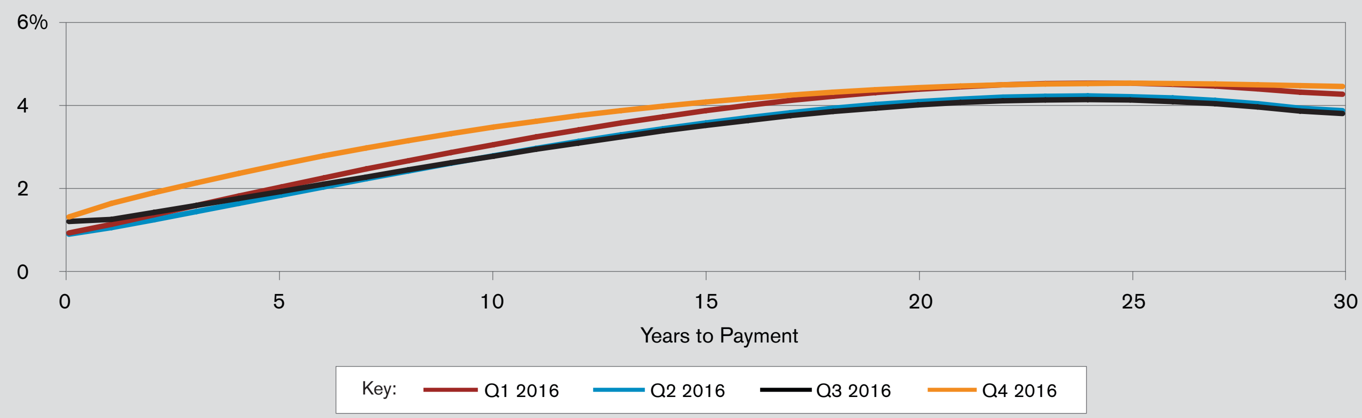
[3] Citigroup World Government Bond Index (WGBI) Unhedged, which includes U.S. and international bonds. (The return for global bonds in Q3 2016 was 0.30 percent.)

Changes in the Yield Curve

High-quality corporate yields increased significantly during Q4 2016 — the net result of an 80-basis-point* rise in U.S. nominal Treasury yields, while credit spreads compressed by 25 basis points. During the quarter, yield increases were relatively consistent across the yield curve, causing its general shape to remain broadly 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 increase in yield-curve level resulted in a large increase in the effective interest rate and, consequently, decreased the model pension plan's liability by about 7 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[1]



[1] 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 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.

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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.

To receive future issues of *Prism* and other publications of interest to employers as soon as they are available online, join our email list.

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* 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.