Prism

Third Quarter 2022 Pension Plan Experience

Pension Plan Funded Status Rises as Soaring Interest Rates Outpace Investment Losses

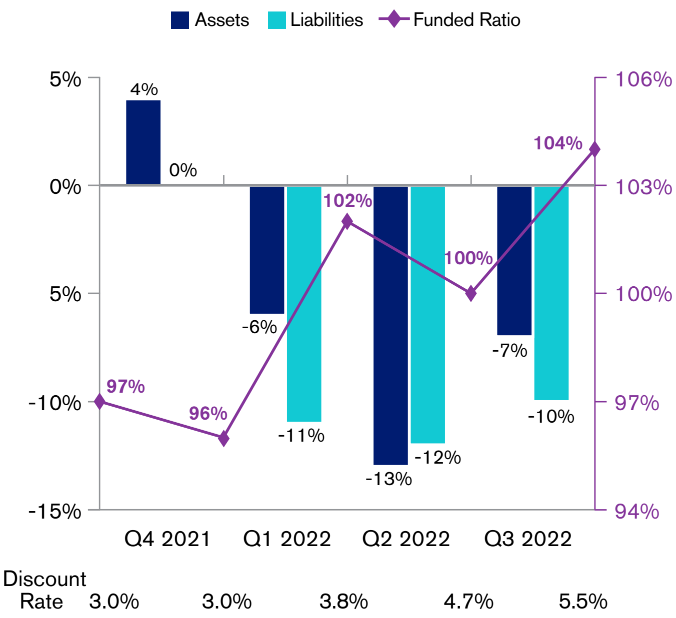
During the third quarter (Q3) of 2022, the funded status of the model pension plan examined in each issue of *Prism* rose by 4 percentage points, to 104 percent. (See Graph 1.) This increase in funded status is primarily attributable to a 10 percent decrease in liabilities, partially offset by a 7 percent decrease in assets.

Changes in the yield curve

High-quality corporate bond yields rose substantially, by 90 basis points, during Q3 — the net result of a 10 basis-point increase in credit spreads and an 80 basis-point increase in U.S. nominal Treasury yields (see "Aspects of investment performance" on the next page for more details). This is illustrated in Graph 2 by the above-median curves.

Plans' liabilities are measured with the yield curve, determined by reference to high-quality corporate bond yields. 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.)

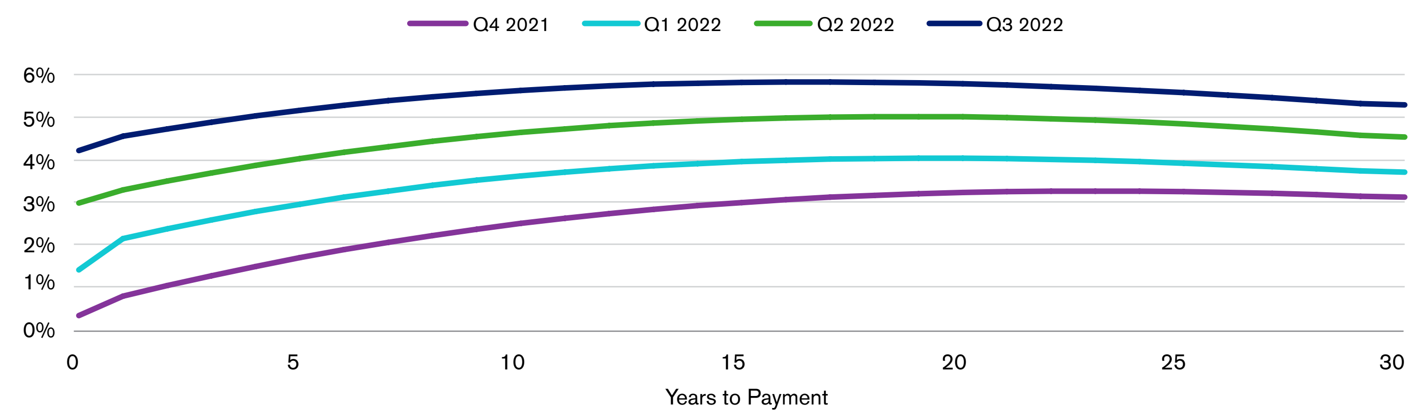
Graph 1: Change in Assets,[1] Liabilities and Funded Ratio[2]



[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 on the last day of each quarter. In May 2022 (after publication of the Q1 2022 *Prism*), the funded percentage for the model DB plan was reset as of January 1, 2022 to reflect the average actual funded percentage of large pension plans.

Graph 2: 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.

About *Prism*

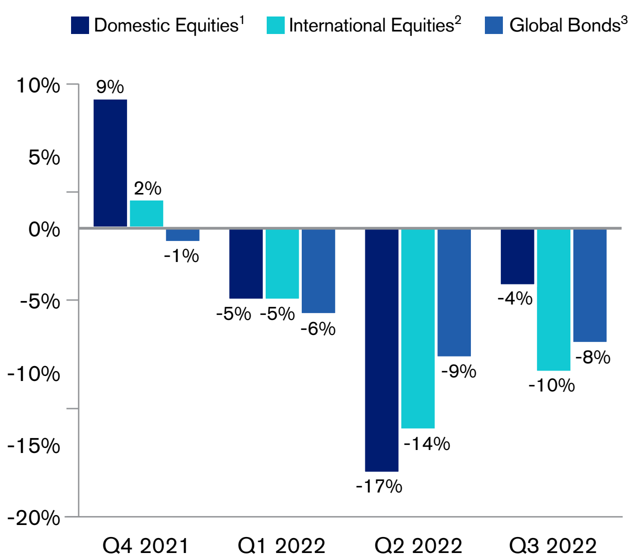
***Prism* examines the effect of changes in the assets and liabilities of a model private sector single-employer pension plan on its funded ratio over the four most recent quarters, viewing such changes through a marked-to-market lens. The primary focus is to understand the combined impact of asset movement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

Aspects of investment performance

This section discusses aspects of investment performance illustrated in Graph 3 that contributed to the model plan's 7 percent loss in asset value in Q3.

Equity and fixed income returns were again very poor across the board during Q3, as September proved to be the worst month of a very bad year for global investment markets. Geopolitical tensions continued as Russia held referendums about and further mobilized troops in occupied areas of Ukraine and inflation worries continued throughout the quarter across the globe. U.S. equity markets are now down nearly 25 percent for the year, following another 4 percent loss in Q3. Developed international and emerging market equities also performed very poorly in Q3 and underperformed U.S. equities with an increasingly strong U.S. dollar proving to be a further headwind for international markets. Developed international and emerging market equities are both down about 26 percent for the year.

Graph 3: Investment Performance



[1] Russell 3000

[2] Morgan Stanley Capital International All Country World Index Ex-U.S. (MSCI ACWI Ex-U.S.)

[3] Citigroup World Government Bond Index (WGBI) Unhedged, which includes U.S. and international bonds

Domestically, small-cap stocks outperformed large-cap stocks in Q3, and growth outperformed value, although everything performed poorly in absolute terms.

Fixed income returns were also poor yet again, both domestically and internationally, as interest rates continue their upward trajectory. International bonds faced further headwinds due to the strengthening U.S. dollar.

U.S. Treasury yields continue to skyrocket across the maturity spectrum and investment-grade credit spreads widened modestly. As a result, U.S. government and investment-grade bond returns again performed very poorly in Q3, particularly long-duration bonds. U.S. Long Duration bonds are down 29 percent for the year. The Federal Open Market Committee (FOMC) increased the target range for the federal funds rate for a fifth time this year, hiking by 75 basis points (for a third consecutive meeting) in September, to a target range of 3.00–3.25 percent. FOMC forward guidance turned increasingly hawkish during September, ending hopes of possible rate cuts on the horizon, as the Fed renewed its commitment to stopping inflation at all costs. The yield on the 10-year Treasury note ended September at 3.83 percent (a level not seen in more than a decade), up 85 basis points during Q3 (and up 231 basis points year-to-date).

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 and segalco.com.

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