Prism

Fourth Quarter 2022 Pension Plan Experience

Model Pension Plan's Funded Status Continues to Rise

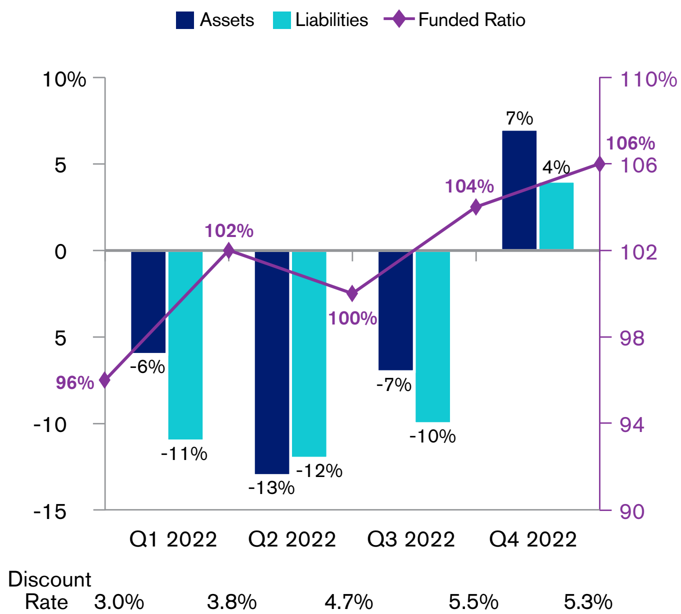
During the fourth quarter (Q4) of 2022, the funded status of the model pension plan examined in each issue of *Prism* rose by 2 percentage points, to 106 percent. (See Graph 1.) This increase in funded status is primarily attributable to a 7 percent increase in assets, partially offset by a 4 percent increase in liabilities.

Changes in the yield curve

High-quality corporate bond yields decreased by 20 basis points during Q4 — the net result of a 30 basis-point decrease in credit spreads and an 10 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](#).)

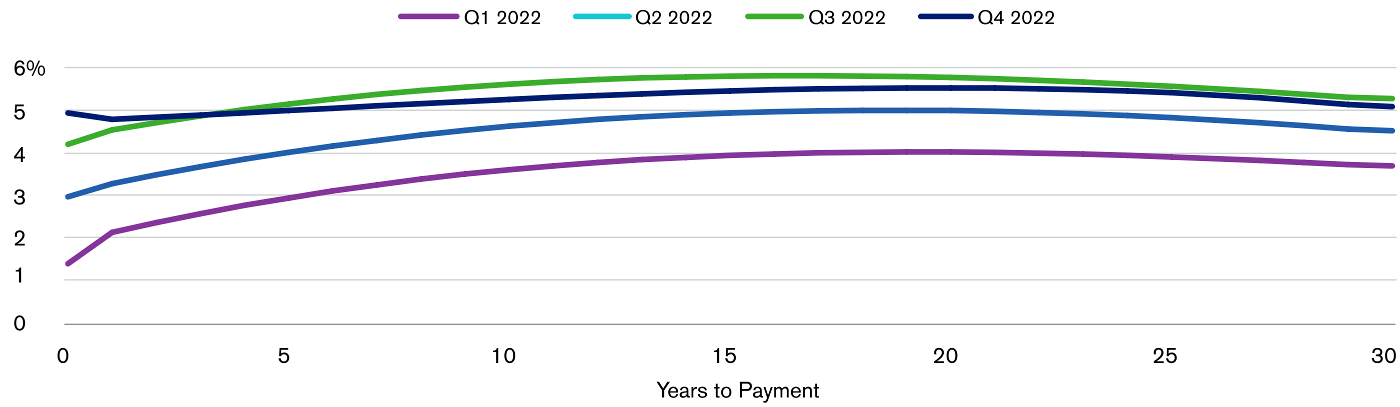
Graph 1: Change in Assets,[1] Liabilities and Funded Ratio[2]



[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*

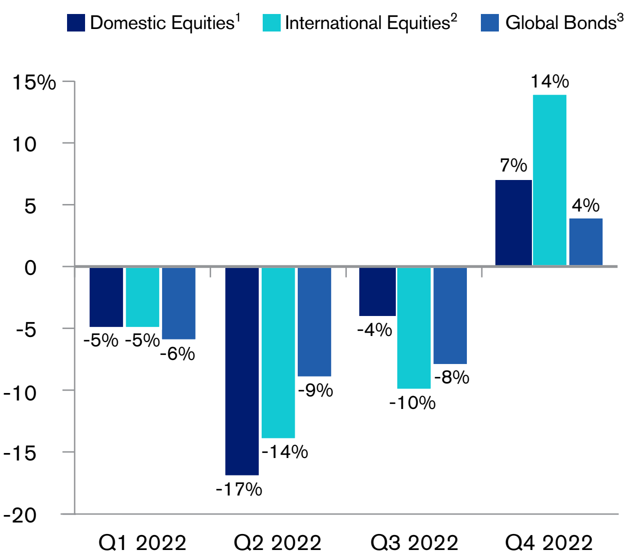
Prism examines the effect of changes in the assets and liabilities of a model private sector single-employer pension plan on its funded ratio over the four most recent quarters, viewing such changes through a marked-to-market lens. The primary focus is to understand the combined impact of asset movement 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 rise in asset value in Q4.

U.S. equity and fixed income returns were both positive during Q4, closing out a historic calendar year in investment markets that saw both domestic equities and domestic bonds post negative returns simultaneously for the first time in at least five decades. (U.S. equities lost 19 percent for the year while U.S. bonds lost 13 percent.) U.S. equity markets were positive during October and November as hope emerged that a Federal Reserve (the Fed) pivot was on the horizon, before retreating during December when the Fed dashed those hopes and reaffirmed its commitment to policy-rate increases. Developed international and emerging market equities also performed well in Q4 and outperformed U.S. equities as China relaxed its zero-COVID-19 policy and began to reopen. A weakening U.S. dollar during the quarter provided a further tailwind for international markets. Developed international and emerging market equities both posted significant negative returns for the 2022 calendar year, returning -14 percent and -19 percent, respectively.

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

Fixed income returns were positive in Q4 both domestically and internationally following three consecutive negative quarters. International bonds were aided by U.S. dollar weakness.

During Q4, U.S. Treasury yields continued to increase dramatically at shorter maturities, but less dramatically at the longer end of the yield curve, while credit spreads tightened materially. The net results were U.S. government and investment-grade bond returns that had their best quarterly performance in 2022. The Federal Open Market Committee (FOMC) increased the target range for the federal funds rate for a seventh time in 2022, hiking by 50 basis points in December, to a target range of 4.25–4.50 percent. FOMC's guidance during December indicated that the Fed is strongly committed to stopping inflation at all costs. The yield on the 10-year Treasury note ended December at 3.88 percent, up 5 basis points during Q4 (and up 236 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.

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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