Prism

First Quarter 2020 Pension Plan Experience

Pension Plan Funded Status Plummets as COVID-19 Drives Large Equity Losses in Q1 2020

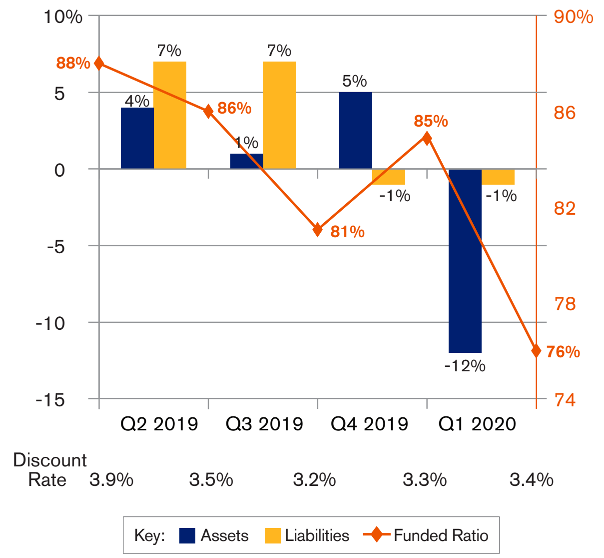
During the first quarter of 2020 (Q1), the funded status of the model pension plan examined in each issue of *Prism* fell by 9 percentage points, to 76 percent. (See Graph 1.) This drop in funded status is primarily attributable to a 12 percent asset loss (heavily influenced by the recent COVID-19 outbreak) offset by a 1 percent decrease in liabilities (due to an increase in corporate bond yields, as illustrated in Graph 2).

Changes in the yield curve

High-quality corporate yields rose during Q1, increasing by 15 basis points* — the net result of a 120 basis-point decrease in U.S. nominal Treasury yields and a 135 basis-point increase in credit spreads (see "Aspects of investment performance" for more details). This is illustrated by the above-median curves shown in Graph 2, and resulted in a 1 percent decrease in the model pension plan's liability.

Any change in the shape of the yield curve could have a dissimilar impact on liabilities for plans with different maturities. (For background on yield curves, read our primer.)

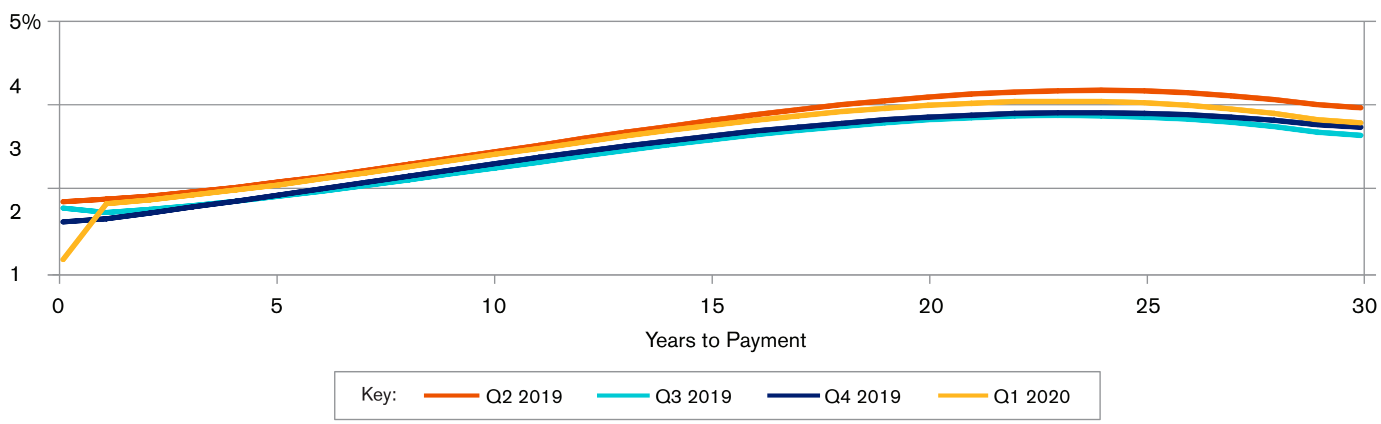
Graph 1: Change in Assets,[1] Liabilities and Funded Ratio[2]



[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. The funded percentage for the model DB plan was reset as of January 1, 2019, 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.

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

About *Prism*

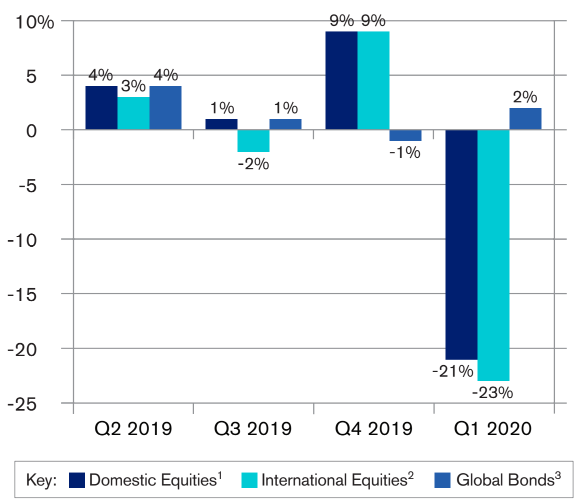
***Prism* examines the effect of changes in the assets and liabilities of a model private sector single-employer pension plan on its funded ratio over the four most recent quarters, viewing such changes through a marked-to-market lens. The primary focus is to understand the combined impact of asset movement 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 that contributed to the model plan's 12 percent loss in asset value in Q1.

The global COVID-19 pandemic dramatically affected world investment markets, as illustrated in Graph 3. In the U.S., the pace of change has been dizzying. On March 16, San Francisco became the first major municipality to issue a stay-at-home order, and California followed suit three days later with the first statewide stay-at-home order. By the end of the month, 41 states and 90 percent of Americans were living under some sort of stay-at-home order.

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

Many economic statistical extremes were achieved during the first quarter of 2020. 9.9 million Americans applied for unemployment benefits during the last two weeks of the quarter. This is more than five times higher than initial unemployment applications for any prior two-week period. The CBOE volatility index (VIX), which measures anticipated stock market volatility, reached its highest level in more than 30 years. Treasury yields reached all-time lows at almost all maturities during the quarter as the 30-year bond, the 10-year note and the 13-week bill all traded at all-time lows during March.

In light of these developments, stock market performance was poor across geographies. U.S. equities, developed international equities, and emerging market equities all lost more than 20 percent during the quarter. The S&P 500 Index® reached an all-time high on February 19, and subsequently fell by 30 percent in 22 trading days, the fastest 30 percent drop in the index's history.

Fixed-income returns globally were slightly positive for the quarter, with U.S. fixed income outperforming international bonds, though both were positive. In the U.S. there was wide divergence among fixed-income performance based on both duration and quality. Long-duration U.S. government bonds were the best performers returning more than 20 percent, while U.S. investment grade credit fell by about 4 percent as credit spreads increased dramatically.

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; 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.

* 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.