Amid a retrenchment in interest rates, pension funding statuses have once again changed course. The momentum generated in 2013 stalled in early 2014 and then reversed in the latter half of the year, negating almost all of the previous gains. In this Topical Commentary, we highlight the factors that brought about such a quick reversal, the outlook for pensions over the next few years, and some of the obstacles facing plan sponsors.

Pension Funds: A Brief History

It appears as if pension funds have once again experienced a reversal of fortune. At the start of 2014, it was believed the quick turnaround—the average funding status jumped from a near-historic low of 78% in 2012 to 85% in 2013—would brighten the earnings outlook for many plan sponsors. With companies no longer having to offset weak pensions with large contributions, money could be freed up for almost anything else, such as reinvesting in the business, paying down debt, or buying back stock. Generally, companies would have greater financial flexibility.

However, trends have been negative since then. While 2013 boosted pension funds, 2014 was not as favorable. By January 2015, the aggregate funding status had fallen back to 78% (Chart 1). As of February, the average funding status has recovered slightly, but at 81% it remains well below its 2014 average. According to Citi Research, the aggregate funding shortfall is more than $430 billion, nearly a 10% increase since the start of 2015 and about 25% larger than the average in 2014.

Clearly to us, there is significant room for improvement. So far this year, liabilities have grown faster than assets1 by more than 1 percentage point—a trend that will need to be reversed, in our view. Such up-ended growth, as the industry calls it, has resulted in many underfunded pension plans. That is, liabilities are growing faster than assets. This backward trend has resulted in many underfunded pension plans. In fact, as of February, only 6% of pension

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1 Li Shou, Quantitative Pension Strategy, Citi Research: Bond Portfolio Analysis (March 3, 2015).
Topical Commentary

assets were in plans that were more than 100% funded, and fewer than 20% of pension assets were in plans that were more than 90% funded.\(^2\)

**Lower Discount Rate Equals Higher Liabilities**

Pension plans differ in their asset allocation, funding status, and relative durations of their assets and liabilities. Though some pension plans have switched to a liability-driven investment (LDI) strategy, which generally reduces interest rate risk, traditionally most pension plans are structured as long-asset, short-liability portfolios (Charts 2 and 3). Pension obligations, that is, the present value of the benefits a firm owes its workers, are an ever-moving calculation. Historically, when interest rates fall, the discount rate applied to calculate the present value of future benefits also decreases; thus, the amount of money needed to meet the future liability actually grows.

Interest rates surged in 2013 when the yield on 10-year Treasuries almost doubled, ending the year at 3%. This, in turn, pulled up the pension discount rate by more than 1 percentage point, according to the Society of Actuaries. However, almost all the interest rate gains were reversed over the following year: in 2014, the 10-year Treasury yield fell 1 percentage point and subsequently dragged down the pension discount rate. Given these data, we would expect the average discount rates used by S&P 500® companies’ pensions to fall as well.

Typically, discount rates are tied to yields on high-grade corporate bonds or, in some cases, government bonds. Each pension plan typically uses its own discount rate, but the Citigroup Pension Discount Curve, used by the Society of Actuaries Pension Section Council, can be used as a guide (Chart 4). The curve is down more than 75 basis

points from a year earlier; in January it was at its lowest level since its local nadir in July 2012, though it recovered slightly in February.

Lower discount rates generally have the effect of growing pension obligations, all else being equal, likely leading to unhealthier pension plans. The magnitude of decline really depends on a plan’s sensitivity to rates and how well its assets perform, among other factors.

Companies seem to be getting some relief. Internal Revenue Service rules determine how much firms have to contribute to their pension plans based on mandated discount rates. Twice in the last three years, Congress has provided relief for pension plans faced with historically low rates, allowing plans to use 25-year average corporate bond price data rather than 2-year average data to calculate contributions. These rules help reduce the negative effect of the extended low-interest-rate environment. Under current rules, companies can use a discount rate equal to at least 90% of the 25-year average through 2017, after which point this floor will be slowly lowered.

We believe asset allocation among pension funds is a strong component of how interest rates and market moves affect a plan. Differing percentage allocations to equity and fixed income play a role. Within each asset allocation, tactical allocations also affect sensitivity. In short, pension plans that take on the most interest rate risk by mismatching assets versus liabilities will typically see the biggest benefits from an increase in discount rates because obligations would shrink as assets grow. Hedging would likely inhibit these benefits.

Firms with long-duration pension liabilities tend to benefit from higher interest rates since this would likely result in lower current obligations. Also, higher rates could benefit plans taking on interest rate risk. There are several mechanisms through which rising rates could benefit a pension, including:

- If a plan’s liabilities are discounted using a market curve, rising rates reduce the present value of the liabilities, potentially improving the plan’s funding status.
- Rising rates directly affect bonds held in a portfolio; that is, bond prices will fall, which could hurt the funding status.
- Other asset classes may be indirectly affected by rising rates.

**The Road Ahead**

Given its history of volatility, we are hesitant to make any definitive forecast about pension funding status. Around this time last year, in our January 2014 Topical Commentary, *Pension Funds on a Roller Coaster Ride*, we said it looked as if pensions were almost out of the woods. Clearly, that was a bit premature. But in the same report, we also warned that the road ahead would not be smooth. We reiterate those claims: We think the future looks brighter for pensions, but this outlook comes with the caveat that the path ahead will undoubtedly be bumpy.

We believe the biggest potential boost for pension funding statuses over the coming year is the expected increase in the federal funds rate. After almost a decade, the Federal Reserve looks to be readying for an increase amid expectations that the U.S. economy is now strong enough to no longer need
the emergency support of the central bank. The PNC Economics team expects the Federal Open Market Committee will begin to increase policy rates sometime later this year. Though the increases will be incremental, we think this will help boost interest rates across the economy. These forecasts predict a federal funds rate of around 1% by the end of the year, with another percentage point gain over the course of 2016.

But we also see obstacles ahead that could impede pension funding progress. First, the assets held in pension plans are getting little to no support from the stock market (Chart 5). Through March 15, 2015, the total return of the S&P 500 is only 0.19% year to date. This is the second year of lackluster performance (in 2014, growth was just 0.07% over the same period) and pales in comparison to the prodigious performance of 2013, when the index gained 9.96%.

Second, the Society of Actuaries released updated mortality tables in October 2014 which are increasing the liabilities of existing plans due to longer life expectancies. Though preliminary tables were released in February 2014, companies may not have fully incorporated the new information into their pension funding estimates until this year. The final tables show that lifespans are expected to increase by two years immediately, and the rate of improvement by age cohort will be faster than previously assumed. Overall, the Society of Actuaries estimates that total pension liabilities will increase 4-8% due to the publication of the new tables; Moody’s Investors Service equates this to about $110 billion in additional costs among all pension funds.

These changes are having significant effects on individual companies’ earnings. When General Motors Corporation (GM) released its fourth-quarter 2014 earnings report earlier this year, the company noted that the change in the mortality tables increased GM’s pension shortfall by $2.2 billion—equivalent to more than 10% of the company’s pension underfunding gap. Further, GM noted that this gap would filter through its earnings statements over the next several years, though the company has no plans to make any voluntary cash contributions to its plans at the moment. GM is not alone in facing these mortality table issues; other companies, such as AT&T Inc. and Verizon Communications Inc., made similar announcements.

Finally, plan costs continue to rise. Beginning in 2014 and continuing over the next few years, insurance premiums paid to the Pension Benefit Guaranty Corporation (PBGC) are expected to steadily rise. Between 2014 and 2016, flat rate premiums are scheduled to increase nearly 50%, while the much-smaller variable rate premiums will almost triple, according to the PBGC.

Though we expect interest rates to rise this year, we anticipate that long-term interest rates will remain near low levels relative to historical trends. This trend will likely persist for many years. While we believe rates will increase,
pension fund managers should be aware that financial repression—that is, that
the Fed will continue to keep rates at historically low levels for the next few
years—is likely to stick around for a while.

As we have seen over the past few months, a pension plan’s funding status
can be volatile. For example, according to Mercer LLC, the average
funding status among S&P 1500 companies’ pension plans was 91% in
June 2011 but fell to 77% within two months as intensifications in the
European debt crisis and U.S. debt ceiling debates brought down interest
rates. Any unexpected retrenchment in interest rates could undo part, or
even all, of the expected advancements. A shift to a LDI strategy could
help mitigate the fallout from any further changes in interest rates, in our
opinion.

A Shift in Planning

Concurrent with the anticipated general improvement in funding statuses are
underlying shifts in investment strategies. The first, and more modest, change
likely to be seen over the coming years is a change in asset allocations. Many
pension plans use a glide path strategy to determine their allocations. As plans
become better funded, they begin to shift toward lower-risk investments; thus,
plans can be expected to shift their allocations from equities to bonds. Though
this will help provide a more stable income stream, it will also help temper
overall returns. For an overfunded plan, however, this preference for security
over returns should not necessarily be an issue.

As a corollary to this asset allocation shift, we think there may be a larger
and seemingly more permanent shift in how pensions direct investments.
More and more companies are pursuing risk-reduction strategies.
Previously, pension plans employed growth-maximizing tactics, which
meant investing in comparatively risky equities. Now, many companies are
matching assets to their liabilities by investing in longer-duration bonds and,
less frequently, derivatives. This is commonly called liability-driven
investing. This strategy differs from the aforementioned glide path strategy
because the latter changes allocations based on funding levels, with a more
aggressive allocation during periods of underfunding. An LDI strategy is
generally more permanent, locking assets into fixed income assets in an
effort to help minimize overall risk.

Alternatively, achieving fully funded status may afford companies the
opportunity to exit pensions altogether. A fund that is fully funded on a
termination basis may pay all benefits and shut down, eliminating future
liabilities. Already, according to the Department of Labor, the number of
workers with defined-benefit pension plans has fallen by almost half from
the mid-1980s peak to only 15.7 million employees in 2014. In our view,
there is no reason to doubt this trend will persist.
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