Astute investors have a keen appreciation of the risks they face. To better understand the risk/reward tradeoffs being offered today we will examine history to understand the context of past market performance and provide an assessment of the current environment, which we believe provides a compelling opportunity for plan sponsors to significantly de-risk their plans.

Where Have We Been?
“Study the past if you would define the future.” – Confucius

Financial history fondly remembers the 1980s and 1990s as the era of the “Great Moderation.” A confluence of events helped to usher in a long period of diminishing economic volatility accompanied by disinflation. Equity returns had the benefit of multiple macro tailwinds such as favorable demographic trends and the technology and credit booms, just to name a few. Meanwhile, disinflation allowed rates to descend from the peaks reached in early 80s.

Market behavior in the last decade has been notably different than the 80s and 90s, as a pair of major market collapses reshaped the perceptions of a new generation of investors. Exhibit 1 displays how the equity and bond markets have moved in conjunction. During the golden years, the blue dots generally leaned into Quadrant 2 (positive equity returns coupled with a declining rate environment). Since the turn of the century, rather than continuing to gravitate toward Quadrant 2, the markets have largely oscillated between Quadrant 1 and Quadrant 4.

Effective LDI: The De-risking Dilemma.
Know When to Hold ‘Em, Know When to Fold ‘Em.

Executive Summary
- The current environment provides a compelling opportunity for pension sponsors to significantly de-risk their plans.
- The typical plan received a significant boost last year, leaving sponsors within striking distance of their funded status goals. Our outlook for slow growth and low inflation implies a lower probability that market forces will be able to pull a plan’s funded status substantially higher from here.
- A simple rule for investing is to never take huge risks for tiny rewards. This applies even more so to plan sponsors given their asymmetric risk profile (i.e., different value functions with respect to being over-versus under-funded).
- Plans that shift equity exposure to an actively managed long duration fixed-income strategy today can significantly improve their risk/reward profile.

Possible Scenario Explanations By Quadrant
- Quadrant 1: Weak economy or systemic risk rising
- Quadrant 2: Disinflation or Fed buys everything
- Quadrant 3: Fiscal crisis or loss of confidence in USD assets
- Quadrant 4: Strong economy

Source: Bloomberg, Western Asset. As of 31 Dec 13
Since the turn of the century, market volatility has taken US pension funded status for a roller coaster ride (Exhibit 2). The perfect storms of the tech bubble burst and the housing/financial crisis inflicted severe strains on corporate pensions. While risk markets eventually recovered after each sell-off, the funded status of the average pension was held back due to a combination of rates continuing to trend lower and the fact that assets were somewhat depleted by ongoing liability payments before they had a chance to recover.

**Exhibit 2**
**Average Funded Status, Private Defined-Benefit Pension Plans**

[Graph showing average funded status from 1990 to 2010]

*Source: Federal Reserve Board. As of 31 Mar 14*

**Where Are We Going?**

“It’s tough to make predictions, especially about the future.” —Yogi Berra

**Slow and Low**

Western Asset’s outlook for some time has been that rate levels would remain range-bound given that the US and global recovery would be a long and drawn out affair, and that inflationary pressures are still benign. Even though we are sufficiently removed from any threatening systemic risk emanating from the financial crisis, economic conditions will still need more time to normalize. With growth projected to remain low and the transmission mechanism for monetary policy still in disrepair, inflationary pressures remain at bay. This muted outlook for growth, coupled with the lack of any imminent risk of rising inflation (developed market central banks are currently more concerned with deflation), should keep interest rates low and mostly range-bound.

While the trend would eventually be to somewhat higher levels of rates in line with the normalization process, this would be a very long path. The prevailing sentiment is that rates are too low and that the immutable laws of mean reversion portend a significant rise in yields. But just because yields fell significantly over the past 30 years does not mean they need to rise significantly going forward. A reversion to the mean does not necessitate a rise back to the average yields of the 1980s and 1990s. A longer-term perspective on 30-year bond yields (see Exhibit 3) indicates a natural level of around 3.75% to 4.25%.

1 “Rate-Driven Bond Bear Markets,” Western Asset, November 2013.
2 “Rising Yields: Doom or Opportunity?,” Western Asset, September 2013.
Given the current level of yields, investors today are well aware that unmanaged fixed-income strategies will be unlikely to generate the returns they have produced over the past couple of decades. Similarly, prospective equity returns are unlikely to repeat the experience of the Great Moderation. Slow growth and low inflation would lead to base case expectations for diminished equity returns and a gradual but very limited rise in bond yields. In a slow growth/low inflation scenario, our expectation is that over the short to intermediate term the market would resemble what is seen in Exhibit 4.

Current equity valuations and the macro environment could lead to disappointing equity returns compared to historical patterns. The risks of a significant sell-off (left skew) will always remain. In our base case scenario, we expect rate movements at the long end of the curve to be less volatile than previous periods and to trend sideways with a very slight upward bias. Pension funds that haven’t de-risked yet are particularly sensitive to sharp sell-offs in equities that we expect would be concurrent with a drop in yields.
What Can We Do?

“To think creatively, we must be able to look afresh at what we normally take for granted” —George Keller

The current environment offers plan sponsors an ideal opportunity to reduce funded status volatility. First, the vast majority of pension plans received a significant boost in funded status last year, while the current macro environment is not predisposed for the markets to repeat 2013’s experience.

Second, much like bondholders, pension sponsors face an asymmetric risk profile. Bondholders generally have limited upside from price appreciation while being exposed to large losses from a credit event (i.e., default). For pension sponsors, the satisfaction of being overfunded is less than the hardships that come with becoming severely underfunded (increased minimum required cash contributions, increased PBGC fees, balance sheet impact, etc.).

Last, pension funds are also by their nature very path-dependent. Severe drawdowns in funded status should be avoided as the necessity to make continuous benefit payments can deplete assets before they have a chance to recover. Cyclically sensitive companies have an additional incentive to be thoughtful about the path of their funded status journey given the business environment in which drawdowns occur.

Conventional De-risking

To instill additional risk management discipline, many plans have adopted a de-risking glidepath that dynamically adjusts the asset allocation by shifting assets away from return-seeking assets and into liability-hedging assets (i.e., long duration fixed-income) based on certain thresholds. For those plans that already have a glidepath, present circumstances offer an opportunity to consider accelerating those plans. For those plans that haven’t yet considered addressing their asset-liability mismatch, now is good time to do so.

A simple rule should be to never take huge risks for tiny rewards. Plans that shift equity exposure to an actively managed long duration fixed-income strategy can significantly improve their risk/reward profile. After a few strong years of returns, equity valuations today are not so attractive as they once were. Meanwhile the macro environment also augurs for lower prospective returns. If near-term expected equity returns are projected to only be 6.5%, that would put them about 200 basis points (bps) over liability returns (assuming a discount rate of ~4.5%). Equities, however, generate approximately 2000 bps of tracking error relative to liabilities. The information ratio of employing equities in an LDI context is only 0.1. An actively managed fixed-income strategy delivering 100 bps of alpha along with 200 bps of tracking error produces an information ratio of 0.5.

Alternative De-risking Strategies

Conventional de-risking—shifting from equities to long bonds—addresses two levels of mismatch: it reduces the allocation to an asset that is uncorrelated with the liabilities, and reduces the duration mismatch. For those that do not wish to alter the asset allocation just yet, there are other de-risking strategies that can be employed. For instance, plan sponsors that wish to guard against a collapse in equities can employ tail protection strategies. Plan sponsors that only wish to address the duration mismatch can either extend the duration of their existing fixed-income strategy or buy call options on rates. For those plans that are confident of a coming rising rate environment and are committed to reducing their asset liability duration mismatch after rates have risen, they can generate income by selling a put on rates (i.e., duration will be put to the plan as rates rise). These are just some of the options available to plan sponsors today.
Effective LDI: The De-risking Dilemma. Know When to Hold ‘Em, Know When to Fold ‘Em.

Conclusion

Our outlook for slow growth and low inflation suggests reduced expectations for equity returns and a gradual yet slight rise in rates. Understanding the broader underlying fundamentals often yields better insights into how history has unfolded and how it may progress. Given our understanding of the macro environment today, equity market behavior in the short to intermediate term does not appear likely to resemble that of the 80s and 90s.

While we all yearn for right tail outcomes, plan sponsors have an asymmetric risk profile, so they should be overly cautious about left tail scenarios. Even if the probability of such an event (e.g., growth shortfall, policy error, military conflict, etc.) is low, when multiplied by the negative payoff, the consequences may be dire. Experience informs us that risk is often underestimated as the human brain struggles to anticipate exponential change and make sense of non-linear relationships. To help our partners reduce their plans’ vulnerability to unpalatable outcomes we supplement experience and intuition with analysis from proprietary...
A/L models, like the Scenario Analysis Model in Exhibit 5, as these tools are useful for quantifying the risk/reward tradeoffs from a LDI perspective.

Plan sponsors must remind themselves that long bonds are the low risk (and therefore default) asset class from an LDI perspective. Forays into anything else should only be effected when there is strong conviction in its relative value on a risk-adjusted basis. Current valuations and the broad macro environment may be signaling it’s time to fold ‘em on return seeking assets.