WELLS FARGO | ASSET MANAGEMENT

Market insights

April 2018

How to do LDI well in 2018 and beyond

Andy Hunt, FIA, CFA
Co-Head of WFAM Global Fixed Income
Head of LDI and Global Credit

Jonathan Hobbs, CFA
Head of U.S. Portfolio Solutions,
Multi-Asset Solutions

Robert McHenry
Product Specialist, Liability-Driven Investments

Corporate pension plan sponsors in the U.S. have embraced liability-driven investing (LDI), but most recognize that this is just the beginning of a multiyear journey of refining what they do and how they do it as LDI implementation evolves. In this paper, we offer key ideas for plan sponsors to consider as they develop a dynamic and flexible approach to managing assets to meet a pension plan's objectives.

Key ideas

- Understand the characteristics of the liabilities that are being targeted
- Stay focused on the fundamentals of building good asset portfolios
- Invest in credit bonds effectively = be active and seek diversification
- Consider the whole portfolio constantly to get the best end result

Balance good liability hedging with good asset characteristics

An LDI portfolio seeks to provide a good match to a plan's liabilities, which are projected payments due to be paid to the plan's beneficiaries for many years into the future. Good LDI portfolios should also be built with appropriate liquidity and asset characteristics. For accounting, statutory, insurance buyout, and other practical reasons, these liabilities are discounted and valued using U.S. investment-grade corporate discount rates. The resulting key liability hedging risk variables are well known; in roughly diminishing order of importance, they are 1. interest rate (that is, Treasury yield) duration matching, 2. credit spread duration matching, 3) interest rate key rate duration matching, 4. credit spread key rate duration matching, and 5. industrial sector matching.

These risk factors are important risk mitigants versus a plan's liabilities, but they should not be pursued without regard to how the resulting LDI portfolio is expected to actually look. We cannot stress enough that the objective is to both manage risk relative to liabilities and build an efficient asset portfolio. Principal in the quest to make the asset portfolio a good long-term investment are the following attributes: 1. diversification—both by industrial sector and individual corporate issuer, 2. cost —manager fees and ongoing frictional costs such as transaction costs, 3. ease of monitoring—a benchmark should be easily available and transparent, and 4. sufficient liquidity. All of the above characteristics can be engineered and delivered concurrently with an appropriate benchmark(s) being used.

Benchmarks are one area where best practices are evolving. As an example of this, our research and risk modeling have led us to develop a portfolio strategy called Small Issuer Long Credit (SILC). Due to a novel benchmark refinement, the SILC strategy forces improved credit diversification into an overall LDI portfolio, and we believe this also improves the scope for manager outperformance (alpha). Because long credit cap-weighted bond indices are dominated by large issuers, we were looking for a way to reduce the risk associated with this high degree of issuer concentration. Our SILC strategy removes the largest 10% of issuers (50% of the value of the Bloomberg Barclays U.S. Long Credit Index) and invests in the remaining 50% of the index (effectively the smallest 90% of the issuers). This may benefit a portfolio in a number of ways. A less-concentrated index of issuers in our SILC strategy seeks to reduce idiosyncratic risks that typically remain in standard LDI hedging portfolios. Also, a less-concentrated benchmark of smaller issuers could add and diversify sources of alpha as well as guard against the risk of credit-rating downgrades. The SILC strategy may be used as a standalone strategy or as a complement to existing conventional LDI portfolios to deliver a more rounded and, we believe, more efficient portfolio in a straightforward manner.

Be active not passive

Skilled asset managers have successfully exploited inefficiencies in fixed-income markets and have demonstrated a consistent ability to add value for investors. This is possible because there are a number of unique attributes of debt markets that make them structurally inefficient and difficult to mimic passively. Further, active managers are well positioned with their in-depth research, better market access, and historical knowledge to exploit the relative-value relationships between sectors. Return data extracted from eVestment Alliance, LLC, found that a majority of active managers across several major bond categories have outperformed their benchmarks on a risk-adjusted basis over multiple 5-year investment horizons spanning a 20-year history.[1] Because some fixed-income mandates have more structural inefficiencies than others, the broader, more global, more credit intensive mandates tend to be the ones where the largest active management opportunity set is likely to be present. This holds for credit-heavy mandates, such as LDI mandates.

Adding value is more than just a nice to have. Because the credit risk inherent in corporate bond benchmarks is not present in liabilities, duration-matching liabilities with corporate bonds may result in unintended consequences. Although liabilities get their corporate-bond-like characteristics by being discounted at a corporate yield, they do not in fact have any market default risk within them (a default or downgrade in the market does not reduce the value of the payments the pension plan needs to make). Put another way, achieving the return of the chosen AA-rated corporate bond benchmark over time will not be sufficient to keep up with the growth rate of liabilities over time because the benchmark returns will decline amid credit-rating downgrades while liabilities will not. We believe the best way to counter this headwind is to attempt to outperform the benchmark by buying the right bonds and avoiding the losers, which supports the notion that active LDI management might be the best way to mitigate liability risk. Further, active management can focus manager insight where it is most effective—and our contention is that the market is least efficient in pricing smaller issuers—and therefore where the most value can be added.

Benefit from manager diversification

As noted above, pension plan liabilities have certain characteristics that resemble corporate bonds, but buying corporate bonds is not a complete hedge to liabilities. When done well, active management can help, and as a result, multiple managers are often employed to harness an appealing blend of skills and credit views. More mature LDI strategies typically use two, three, or more active long credit bond managers. In such cases, it is important to consider how the various managers' skill sets complement each other. Some managers attempt to add value by seeking to control overall credit and duration risk; some rotate among industrial sectors; some take non-benchmark positions; and some focus on bottom-up security selection and the less efficient, smaller end of the credit market. All approaches can work, and all may have a role to play in an overall LDI portfolio.

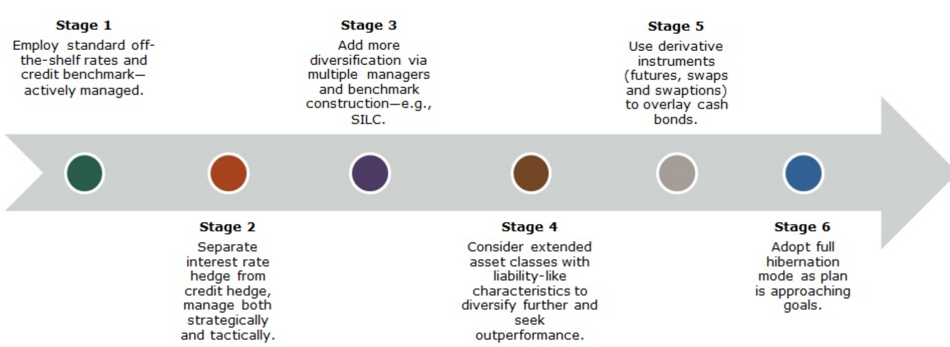
Within the manager selection decision, it is important to consider which of the approaches are believed to work most reliably over time and, if a plan is seeking to add a new manager, how they would complement the existing managers of the pension plan. A few things can be done to help in this regard. First, play to each manager's strengths by choosing benchmarks and mandates that suit their investment process and skills. For example, at Wells Fargo Asset Management (WFAM), we believe we add value across our portfolios based mainly on bottom-up security selection, especially when investing in the less efficiently priced smaller issues. Second, keep an eye on the whole roster of investment managers to make sure the overall portfolio performs as intended. Within the context of considering the whole roster of managers, including WFAM for a strategy focused on issue selection, especially among small issuers, could be additive and diversifying to the overall portfolio.

Seek partners to help in your LDI journey

Just as LDI implementations have changed over the past decade, we expect they will likely continue to evolve over the coming years. To this end, pension plan sponsors may find it helpful to work with LDI experts who can aid and inform their investment decisions as their needs change. Typically, a plan's actuary and investment consultants offer these advisory services. LDI managers at the forefront of developing pension solutions may also be consulted.

Below we share six stages we see evolving as pension plan sponsors manage their liability-hedging portfolio journey. Along the way, a pension's funded ratio increases and the glide path is de-risked as the LDI portfolio moves toward its end stage of being in a hibernation state, or hedged to its liabilities, and seeks to minimize surplus risk. The middle stages incorporate strategies and tools that effectively address changes in the funding ratio or changes in the investment opportunity set. For example, these

Managing the LDI journey



Benefit	Simple first step, easy move from Aggregate bond benchmark to Long Government Credit	Value-added opportunities as spreads change; more tunable risk management	Value-added opportunities from asset diversification	Value-added opportunities from other relevant fixed income sectors	Portfolio efficiencies plus downside mitigation	Manages key rates, DV01, DTS01, and sector exposure in line with liabilities
Comment	Easy and effective at low funded status levels	DV01 and DTS01 (plus key rates) as management tool	Concentration problem; largest issuers make up majority of benchmark, but typically offer no added yield	Moves away from just US investment-grade (IG) corporate bonds (e.g., agency multifamily Commercial Mortgage Backed Securities (CMBS); U.S. high yield, non-US IG)	Requires lots of client hand-holding—especially swaptions	Lowers tracking error to minimal levels

Source: Wells Fargo Asset Management

stages address hedging liability risks, using multiple investment managers, and expanding the investment choices to meet the ultimate objective of a fully funded pension plan. Not all of these steps will necessarily be used by all pension plans, but pension plan sponsors and their advisors should discuss which of these steps are appropriate.

In order to achieve this vision, an LDI manager should consider working in collaboration with pension plan sponsors and their established advisors. The LDI manager should be able to assist in considering all of the pension plan's assets, helping structure these to deliver the most efficient overall portfolio. After all, it is not just about the fixed-income portfolio. For instance, the business risk characteristics of the plan sponsor and the portfolio of return-seeking assets should affect the liability-hedging portfolio—that is, the return-seeking portfolio should adapt to the way in which the liability-hedging portfolio is constructed and the plan sponsor's business risk.

We believe the best LDI managers possess the right analytic tools for the problem and a proven ability to implement customized active bond portfolios and multi-asset solutions. At WFAM, we have an established and experienced team that does exactly this. We believe LDI is best seen as a holistic product-plus-service model, where we strive to deliver good risk-adjusted performance, beneficial LDI advisory, and risk reporting services.

[1]See WFAM executive summary: The Reasons Why Active Fixed-Income Managers Should Continue to Outperform, April 2018. Return data discussed are gross of fees. All available historical return series in each universe over the 20-year period, including those that have terminated reporting prior to December 2017, are included in these calculations in an effort to mitigate survivorship bias in aggregate performance results.

The views expressed and any forward-looking statements are as of April 27, 2018, and are those of Wells Fargo Asset Management. The information and statistics in this report have been obtained from sources we believe to be reliable but are not guaranteed by us to be accurate or complete. Any and all earnings, projections, and estimates assume certain conditions and industry developments, which are subject to change. The opinions stated are those of the author and are not intended to be used as investment advice. The views and any forward-looking statements are subject to change at any time in response to changing circumstances in the market and are not intended to predict or guarantee the future performance of any individual security, market sector or the markets generally, or any mutual fund. Wells Fargo Asset Management, disclaims any obligation to publicly update or revise any views expressed or forward-looking statements

Wells Fargo Asset Management (WFAM) is a trade name used by the asset management businesses of Wells Fargo & Company. WFAM includes but is not limited to Analytic Investors, LLC; ECM Asset Management Ltd.; Galliard Capital Management, Inc.; The Rock Creek Group, LP; Wells Capital Management Inc.; Wells Fargo Asset Management (International), LLC; Wells Fargo Asset Management Luxembourg S.A.; Wells Fargo Funds Distributor, LLC; and Wells Fargo Funds Management, LLC. This material is for general informational and educational purposes only and is NOT intended to provide investment advice or a recommendation of any kind—including a recommendation for any specific investment, strategy, or plan.

NOT FDIC INSURED • NO BANK GUARANTEE • MAY LOSE VALUE

311711 04-18