SEGALL BRYANT & HAMILL

Considerations for Transitioning to Liability-Driven Investing

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While transitioning from a total return plan approach to Liability-Driven Investment Strategy has clear benefits, it can be challenging to implement. In this paper, our fixed income experts review critical considerations when building an LDI portfolio.

KEY TAKEAWAYS:

- LDI strategies represent a key approach for defined benefit plans to help strategically manage risks and returns.
- LDI strategies are designed to help achieve plan goals by mitigating risk, decreasing volatility, and maintaining funding gains.
- Plan sponsors should consider a customized LDI solution designed by a tenured team taking a fundamental, disciplined research approach.

At Segall Bryant & Hamill, we understand that the decision to transition to a Liability-Driven Investing (LDI) strategy can be complex. We have helped clients successfully navigate this process based on our understanding that every pension plan is unique in terms of the demographic profile of plan participants, the types of benefits offered, and actuarial assumptions impacting plan financials. Despite the unique aspects of each plan, there are several common questions each plan should be asking when considering a transition to an LDI approach.

WHAT IS LDI?

LDI is primarily a risk management pursuit, in a departure from a traditional total return mindset when investing in plan assets. LDI is the exercise of matching the interest rate sensitivity of pension assets to that of the liabilities in order to reduce tracking error between the two.

The value of the liability stream is determined by two primary factors: the actuarial assumptions regarding the future pension obligations (such as mortality, service costs, and interest costs) and the discount rate used to determine the present value of the future liability. It is harder to control for changes in the former, but the impact of changes in the discount rate, which are influenced by financial markets, can be addressed using the investment portfolio.

Traditionally, a plan's liabilities will have a higher sensitivity to movements in interest rates than the plan's assets. LDI is a way to address these varying sensitivities, and typically an LDI strategy will involve an extension of portfolio or asset sensitivity, or duration.

An LDI strategy can be implemented at differing levels of "commitment," from allocating only a portion of plan assets to an LDI strategy to a full implementation of the asset portfolio, to an immunization of all future cash flows of a fully funded plan.

WHY IS LDI IMPORTANT?

The relationship between pension assets and liabilities has broad-ranging impacts for plan sponsors. When the risk profiles of the assets and liabilities are not matched, movements in interest rates or market conditions can create large disconnects between the two. Movements in the asset and liability profiles impact cash flows as well as financial statements and results, so this relationship should be on the radar of Treasurers, Chief Financial Officers, Chief Executive Officers, and other users of financial statements.

A common reason for moving to an LDI approach, particularly for public companies, is to minimize volatility in the plan sponsor's financial statements that can result from an imperfect match of assets with liabilities. This can impact the reporting of balance sheets, income statements and cash flows. The results of a disconnect between assets and liabilities can be very real.

As an example, we recently saw an excerpt from a 10-K report of a large public U.S. corporation where they were forced to recognize pre-tax mark-to-market losses in "Other Income and (Expense)" of $1.627 billion, $800 million and $2.651 billion on their pension and postretirement defined benefit plans related to the remeasurement of plan assets and liabilities recognized outside of a 10% corridor, for 2018, 2017 and 2016, respectively.

Trends in accounting standards and investor demands are toward more transparent financial reporting, including pension-related expenses, so volatility in earnings and balance sheet positioning are important consequences of asset liability mismatches.

LDI is a way to align investments to immunize against a pension plan's unique set of variables as outlined above. By moving to more closely align the assets of the pension plan with its projected liabilities, it may be possible to minimize financial statement volatility and improve funded status, thus potentially reducing required cash contributions and other cash outflows, such as Pension Benefit Guaranty Corporation (PBGC) premiums that are assessed for underfunded pension plans. A lower funded status of assets to liabilities will result in higher premiums highlighting another important factor in capital allocation decisions and a sponsor's outlook on funding its pension plan.

The genesis of pension funding and reporting requirements can largely be traced back to the Employee Retirement Income Security Act (ERISA) of 1974 and was further advanced by legislation such as the Pension Protection Act (PPA) of 2006 and the advent of the PBGC. In conjunction with accounting standards such as FASB's ASC 715 – "Compensation – Retirement Benefits," corporate executives and decision-makers are obliged to devote time and attention to this issue.

HOW ARE ASSETS MATCHED TO LIABILITIES?

The first step in matching assets to liabilities is typically called benchmarking. Benchmarking is the process of determining a universe of securities that targets the profile of the liabilities. Benchmarks can be very specific – focused on a precise maturity, duration or credit quality – or can be broad market indices comprising various long duration assets.

Constructing an appropriate benchmark requires an understanding of the plan sponsor's liability cash flow profile and characteristics and establishing appropriate limitations that align with a client's risk appetite. Benchmarking is influenced by three important factors as detailed below.

Security Selection: Some practical considerations for plan sponsors and LDI managers may be whether to allow investments in BBB-rated securities, 144A securities, sovereign and supra-national securities, etc., while also maintaining a reasonably sized investable universe. This decision should also take into consideration how these types of securities are represented in the underlying discount rate and the desire for added return potential in the asset portfolio. Understanding how these factors are interrelated helps to minimize tracking error between the benchmark and plan liabilities.

Once a benchmark is established, there should be consistent monitoring and updating to keep the benchmark and liabilities aligned, as a pension plan will generally change over time due to variables such as actuarial adjustments, plan maturation, and participant lump sum payouts, to name a few.

Plan Status: Plan status impacts the benchmarking process for plan assets and the liquidity requirements over near-, intermediate-, and long-term horizons. An open plan accepting new participants would be expected to have different duration and cash flow schedules than a frozen plan with a more finite horizon, and an LDI benchmark and investment solution should be designed accordingly.

Further, the stage of the LDI lifecycle will impact portfolio design as each plan and sponsor is unique. Some may look to just increase portfolio duration, perhaps a more standardized benchmark will suffice, while others may be more focused on cash flow immunization requiring much greater customization.

Discount Rates: The discount rate used in the calculation of plan liabilities is a key component of the asset/liability equation. Due to funding pressures from a secular decline in interest rates, various pieces of legislation allow for smoothing of discount rates over time, which has the effect of reducing a plan's unfunded liabilities and required contributions.

There are two primary discount rates: one for minimum funding requirements and the other for GAAP or financial reporting purposes.

- **Discount rate for minimum funding requirements:** Minimum required contributions are determined via ERISA and PPA rules. The applicable discount rate is published by the IRS and is based on yields for single A or better-rated corporate bonds. This discount rate impacts the required cash costs of pension funding, along with premiums or penalties for underfunding.
- **Discount rate for accounting/GAAP financial reporting:** This discount rate is used for the preparation of financial statements and is determined by actuaries who generally use a universe of AA or better rated credit bonds to approximate the profile of a plan's cash flows. Corporations are incentivized to use the highest-yielding set of bonds that meet the defined criteria, which again usually has the impact of reducing the reported liability.

The incentive for plan sponsors to use the highest-yielding discount rate can lead to mismatches relative to what a bond manager can reasonably invest in when constructing an LDI portfolio.

As mentioned earlier, legislation such as the Pension Protection Act (PPA), Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Highway and Transportation Funding Act (HATFA) are all examples of regulations that impact discount rates, accounting treatment, smoothing mechanisms, funding relief and required contributions. In addition to the three factors outlined above, it is important to understand the impact regulatory changes and legislation may have on the alignment of assets and liabilities.

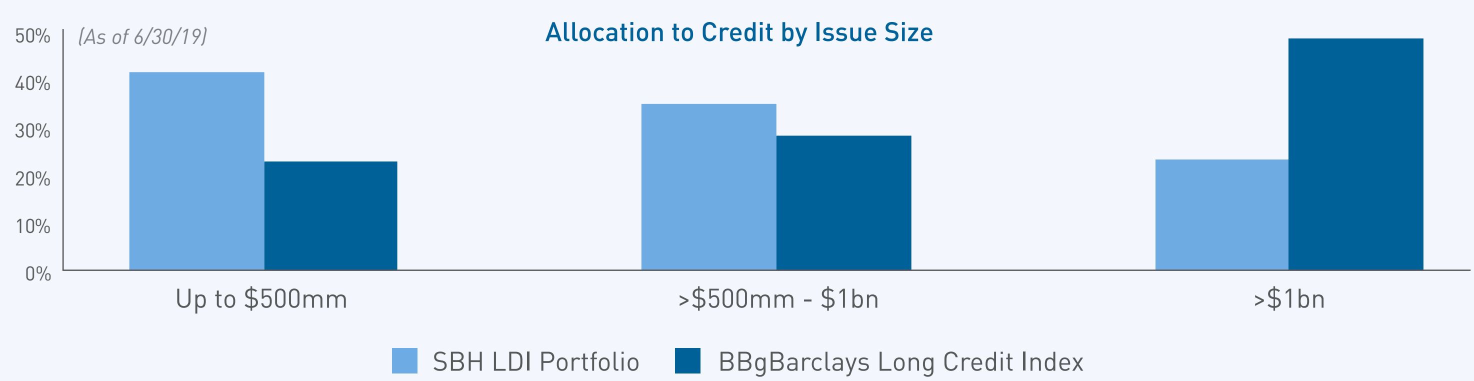
Choosing the right manager for a successful transition. An LDI manager should be able to help bridge the theoretical to the investable–that is, translating the principles discussed above into a portfolio that exhibits low tracking error, downside protection, and robust investment performance.

Often, the universe of securities used by actuaries to discount the liabilities may be overly concentrated, skewed toward illiquid, esoteric issuers, and/or credit profiles that plan sponsors and/or LDI managers may want to avoid. In addition, the discount rate doesn't "suffer the consequences" of bonds that are downgraded, as those bonds are simply removed from the universe. Said another way, a discount rate exhibits the yield of credit bonds coupled with the default risk of a U.S. Treasury or other risk-free asset. An LDI manager therefore does need to seek to avoid such downgrades and other credit mistakes as a result of this dynamic to avoid the underperformance of assets relative to liabilities.

All these factors should be incorporated into a customized investment solution designed to help sponsors and consultants achieve a plan's objectives. The nature of the LDI benchmark and portfolio design can lead to concentration in underlying credit risks. For example, the largest debtors often are well represented in common benchmarks and resultantly, in managers' portfolios.

At SBH, our focus on market inefficiencies such as smaller issues, taxable municipal bonds, and underfollowed credits can serve to add to diversification of portfolio holdings while still maintaining a very high-quality portfolio. This process will typically involve consultation regarding the previously mentioned issues, working closely with a pension plan sponsor, an investment consultant, and actuarial staff.

SMALL ISSUE INEFFICIENCIES — SBH LIABILITY-DRIVEN INVESTING (LDI)



Source: CMS BondEdge, Bloomberg Barclays
Information presented is for representative portfolios that we believe most closely reflect current portfolio management style for the strategy. Performance is not a consideration in the selection of the representative portfolio. Weights may not sum to 100% due to rounding.

The next steps in preparing to transition to an LDI portfolio involve incorporating plan characteristics and client risk appetite to devise an appropriate benchmark, investing a high-quality portfolio in accordance with that benchmark and then tracking performance relative to both the benchmark and liabilities. The process is active and dynamic, and a manager should communicate regularly with the other stakeholders. A "set it and forget it" or passive approach is likely to fall short over time as circumstances change.

Having established objectives, guidelines and incorporating unique plan circumstances, the transition process can begin. There is no "one size fits all" approach to an LDI transition, but some components for consideration may include:

- Extend Treasury and cash/cash equivalents, along with liquidating securities not conducive to the revised investment objectives. Match duration and convexity of a liability stream to minimize tracking error.
- Further minimize tracking error by bridging the gaps between investable assets, liability characteristics, and discount rate population.
- Dependent on the variables outlined, consider a glide path strategy or phased-in implementation of portfolio hedging. Many plan sponsors implement LDI through a glide path, which derisks as funding levels improve by increasing the long-bond allocation and decreasing the equity allocation.
- Allocate investment assets in accordance with the plan's risk appetite and established objectives.

LDI SOLUTIONS AT SBH

There are many factors to consider before implementing LDI, including risk tolerance, company constraints, funded status, plan status, and the market environment. Further, regulatory rules, accounting treatment, and actuarial impacts surrounding LDI can be complex, and a thoughtful approach is necessary to have the strategy customized for each individual plan's circumstances and approach to risk. The tenured team at SBH uses a consistent approach to LDI designed to perform well in all periods, with an emphasis on downside protection. We take into account the factors discussed above, then apply our philosophy of investing in high-quality, underfollowed securities through a consistent research process aimed at constructing optimal investment portfolios.

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