

## *Key Definition*

### **Embedded liabilities ~**

Obligations that exist within an organization that influence investment decisions. Embedded liabilities, including spending policies or debt covenants, cause institutions to focus on reducing the volatility of returns to satisfy such liabilities, thereby defining their risk tolerance

## *About the Firm*

Lancaster Pollard Investment Advisory Group, an SEC-registered investment advisor, works exclusively with non-profit organizations to create the financial means to last the life of their missions.

Independence combined with specialized knowledge and experience enables us to optimize an organization's investment returns relative to its unique risk/return profile.

To find out more, contact William M. Courson, President (614) 224-8800 [wcourson@lancasterpollard.com](mailto:wcourson@lancasterpollard.com)

## **Investing with a Purpose:**

### **A liability-driven investing approach**

By Adam J. Smith, CFA, CAIA

When structuring an investment portfolio, institutional investors oftentimes focus solely on the assets of the institution with little, if any, consideration for their embedded liabilities. Doing so typically leads to a strategic asset allocation designed to outperform either a benchmark or an absolute level of return, which is often chosen arbitrarily by adopting historical "norms." While this asset-only focus can at times lead to outperformance, it often fails to consider the volatility of returns. More importantly, an asset-only focus does not address what should be the true goal of all institutional portfolios: generating the returns necessary to meet the institution's embedded liabilities. While a focus on both assets and liabilities should help institutions better manage risk within their investment portfolios, a disciplined approach that can be applied to each institution's unique situation is required.

For nearly all institutional investors, the best approach is the use of a liability-driven investing (LDI) strategy. The LDI concept was first introduced over 50 years ago in the United Kingdom to help with the management of pension fund assets, for which the assumed actuarial rate of return was the embedded liability. Originally, the idea was to match the assets and liabilities of a pension plan in order to reduce interest rate risk, smooth returns, and increase the probability of achieving the actuarial rate of return.

Given its original intent, many institutional investors incorrectly believe that LDI is appropriate only for pension plans. Rather, LDI can and

should be utilized to structure the investment portfolio of any institution with embedded liabilities because it provides a fundamental framework within which an institution can measure, manage, and monitor the risk/return profile.

In addition to its use for pension plans, endowments and foundations can utilize an LDI approach to structure a portfolio that increases the probability of generating returns sufficient to meet their spending policy obligations, while an institution with outstanding debt can utilize an LDI strategy to reduce the probability of large losses within the investment portfolio that could potentially trip a debt covenant. While any institution with embedded liabilities can benefit from LDI, the implementation of such a strategy is unique to each institution.

While the LDI framework is consistent for all institutions, its application and the resulting strategic asset allocation decision are unique. The most important step in structuring an investment portfolio using an LDI approach is defining an institution's risk tolerance. Historically, many institutional investors defined their risk tolerance as the allocation between stocks and bonds, with many settling on a strategic allocation of 60% in stocks and 40% in bonds; however, this risk tolerance was appropriate only for the "average" institutional investor and was rarely, if ever, related to the embedded liabilities of a specific institution. Furthermore, this simplistic view of risk tolerance and strategic asset allocation failed to consider other asset classes, such as real estate and commodities. Utilizing an LDI approach allows institutions to deter-

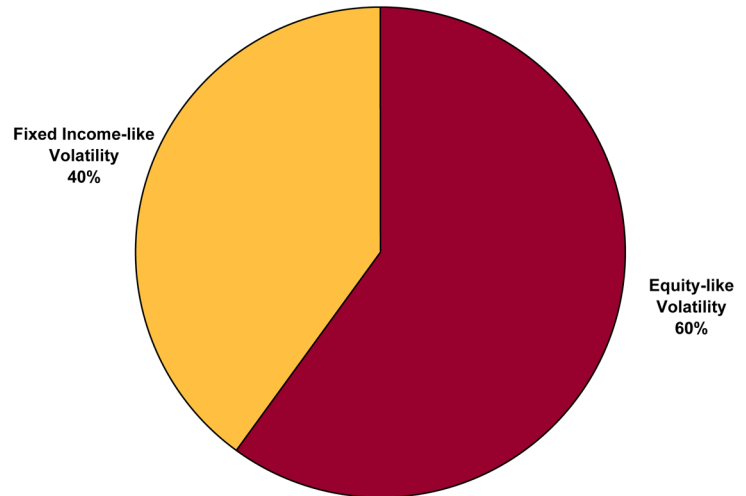
*(Continued on back)*

mine their specific risk tolerance, while defining risk tolerance based on types of volatility beyond just stocks and bonds allows for the inclusion of alternative asset classes.

Although there are a number of different asset classes, every asset class tends to exhibit one of two types of volatility: equity-like volatility or fixed-income-like volatility. Asset classes with higher volatility are classified as equity-like, while those with lower volatility are classified as fixed income-like. For example, stocks, real estate, and commodities are asset classes that exhibit equity-like volatility, while investment grade fixed income and Treasury Inflation-Protected Securities (TIPS) are asset classes that exhibit fixed-income-like volatility. Additionally, these asset classes serve different purposes within the portfolio: asset classes with equity-like volatility are used to generate returns, while asset classes with fixed income-like volatility are necessary to reduce the volatility of overall returns. If institutional investors think of risk tolerance in this way, an LDI strategy can then determine the allocation between equity-like and fixed-income-like volatility, which is based on the embedded liabilities of the specific institution rather than structured for an “average” institution. Therefore, the risk tolerance of a foundation with a 5% spending policy would likely differ from that of a hospital with outstanding debt and debt covenants related to days’ cash on hand and debt-to-equity, both of which can be impacted by losses within the investment portfolio.

While it is critical to determine the appropriate risk tolerance, it is also important to measure the expected risk within the portfolio relative to the institution’s liabilities. One way in which institutions can do this is through the use of a Value-at-Risk (VaR) analysis. While VaR has many applications, in this context it utilizes the expected return and volatility of the portfolio, which is based on a unique risk tolerance and strategic asset allocation plan, in order to determine the probability that the return generated by the assets will meet the institution’s embedded liabilities. Therefore, a VaR analysis allows institutions to evaluate the risks within the investment portfolio in relation to the embedded liabilities, ultimately measuring the likelihood of achieving success in applying an LDI-based investment approach.

## Is 60/40 Right for Your Portfolio?



Although it is important to conduct an LDI analysis when initially structuring the portfolio, it is equally important to update the analysis whenever the embedded liabilities change. For example, different covenants associated with a new debt issue or changes to the spending policy can significantly alter an institution’s risk tolerance. Regardless of whether their embedded liabilities change, institutions should conduct an LDI analysis at least annually in order to incorporate the most recent expected returns and volatility for each asset class. Oftentimes, an LDI analysis is completed concurrently with the annual review of the investment policy statement. Utilizing an LDI strategy to determine the risk tolerance and strategic asset allocation will allow institutions to focus on what is most important: their mission. Nearly as important, however, it will also allow institutions to answer the fundamental question facing all investors: why are you invested the way you are?