

## Liability Driven Investing for Insurance Companies

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**In this Q&A, Conning's Head of Insurance Solutions provides insurers his insights on the use of liability driven investing, including investment strategies that insurers should consider.**

*Q: How does the term Liability Driven Investing (LDI) compare to Asset Liability Management (ALM)?*

Asset Liability Management (ALM) has been a common term for insurers for decades, while Liability Driven Investing is a more recent name preferred by pensions, describing a similar strategy. LDI borrows from the traditional ALM terminology with the differences being largely a matter of the context in which they are used.

Insurers formerly defined ALM as "Asset-Liability Matching" many years ago, but the acronym gradually evolved into "Asset-Liability Management" when the industry realized there are benefits and opportunities to not having assets tightly matched to liabilities.

Interestingly, when the phrase LDI originally came in vogue it was interchangeable with ALM, but in a twist of etymological fate the pension industry started using LDI to refer to Asset-Liability Matching again. This makes sense, as most pensions are now closed to new members and can't profit from upside risk once they are funded beyond a certain level, they have an inherently stronger interest in protecting against downside risk. Insurers, of course, get to reap the benefits of both, hence the difference in strategies.

*Why is LDI a concern for insurers and other institutional investors?*

LDI is a concern for insurers and all institutional investors, but the degree of concern varies greatly depending on individual circumstances and investment objectives. Liability Driven Investing simply means investing with an eye towards liabilities that will need to be paid off at some future date, a consideration no investor should ignore. However, the amount of capital held by an investor to help ensure satisfactory payment impacts the degree to which investments must fit those liabilities.

An investor with little capital needs to have a tight match to

these liability payments, or they risk failing to satisfy their obligations. If the investor has a large amount of capital, certain riskier investments can be made in hopes of achieving higher returns, since capital provides a buffer. Certain accounting and regulatory requirements also impact these factors, as well as a firm's risk tolerance.

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*What specific investment experience and capabilities does LDI require, and are small and large insurers equipped to handle?*

Investors really should have the ability to estimate the projected behavior of their investments, as well as the behavior of their liabilities, and it's common for investment platforms and actuarial systems to produce cash flow projections under various economic scenarios. Certain quantitative metrics, such as duration and convexity, can also be relatively easily computed from these cash flow projections. It does, however, take some experience with analyzing these metrics to avoid pitfalls like inaccurate formulas, bad scenarios, or misinterpretations of output.

More sophisticated techniques can move from simple cash flow and duration matching to complex calculations, like risk and reward preferences, that are revealed only in a full stochastic efficient frontier analysis. Other risk management measures, such as VaR analysis and stress testing, may require a deeper focus on model calibrations and output.

Larger companies usually have the resources and a pool of experienced staff to facilitate this sort of analysis, but smaller companies generally need to look to consultants for help in these specialized areas.

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*How does the low interest rate environment impact insurers' LDI strategy? What is on the mind of your clients and the industry?*

The low rate environment has led to some rather extreme extensions of insurance liability cash flows and durations. This has been caused by the expectation that policyholders will not lapse their policies, since insurance crediting rates are relatively attractive compared with other investments, particularly if there are minimum rate guarantees in place. Many companies in the industry chose not to extend asset durations as rates declined, either for fear of trading their portfolio and reducing book yield, or for tactical reasons, believing the rate drops to be temporary.

Regardless, some companies now have asset durations well below their liability durations. Several have maintained this mismatch for so long that it's resulted in reduced economic value, as market yields are much lower at the short end of yield curves. As rates have fallen even further, liability values have increased far more than assets have appreciated, making this an expensive gamble for companies that didn't fully adapt to the low rate environment. The industry is now under immense pressure to improve yields and returns, and the prudent companies are doing so where they are well compensated for the risks they take.

*How and why would LDI approaches differ globally?*

There are a number of reasons why LDI strategies vary and need to be specifically tailored for individual companies. First and foremost, global regulatory regimes vary quite a bit, and certain regulatory environments penalize asset and liability mismatches more than others. Such penalties often show up in the way capital requirements or reserves are calculated, so mismatching quickly becomes an expensive strategy. As an example, Solvency II regulations have punitive capital requirements for duration mismatches, while comparable US rules proscribe lighter penalties. That said, new US Principle-Based Reserve (PBR) approaches will close this gap, placing a greater emphasis on better matching of investments with liabilities and bringing the American rules more in line with Europe's.

Certain markets, particularly in smaller nations, have more

limited investment opportunities and may not possess suitable assets for better hedging their liabilities. This creates a challenge for some companies, which may take on other types of risk, such as in currency, property, or equity, to compensate for market deficiencies.

*We've seen how LDI has helped corporate pension plans in the past, but how does LDI effectively de-risk insurers portfolios?*

LDI strategies provide a tremendous amount of de-risking potential for pension plans, which have always had fixed income-like liabilities, yet traditionally also hold between 50-70% in equity investments that change in value very differently. LDI quantifies this difference, and clarifies the amount of risk pension sponsors are taking with these mismatches.

Insurers, on the other hand, have traditionally backed their fixed-income like liabilities with fixed income investments, partially because they have long recognized the need for asset and liability alignment, and partially because regulatory requirements penalize insurers' non-fixed income investments.

*What type of de-risking strategies should insurers consider, and how are they different from what e.g., pensions are doing?*

Generally speaking, insurers need longer duration assets, similar to pension plans. Once duration exposure is managed within an insurer's individual risk tolerances, it would be well served to continue looking for diversification opportunities among alternative assets that can help mitigate risk concentrations, like credit exposure, and provide an opportunity for increased reward.

A fundamental difference between insurers and pensions is that insurers must hold ownership capital to ensure the safe payment of claims to policyholders. Pensions do not explicitly hold capital, but instead rely on an implicit claim to plan sponsors to ensure payments are made to pensioners. Unlike pensions, whose gains from excess returns are capped once their funds are fully funded, insurers have an unlimited profit motive. An insurer's goal is not eliminating risk, but taking considered risk that is appropriately compensated. Pension plan sponsors also seek returns to reduce or eliminate contributions, but once full funding is achieved, their primary objective is simply to minimize risk.

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