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LIABILITY-DRIVEN INVESTMENT

New global solutions are quickly evolving.

All pension fund investment decisions should aim to maximize the risk-return trade-off relative to liabilities. In recent years, the increasing importance of market-based valuations has resulted in risk relative to liabilities being more clearly defined. With declines in solvency ratios, there is now a greater focus on risk. This backdrop has resulted in greater interest in liability-driven investment (LDI) approaches.

There are three key ways in which LDI differs from traditional investment approaches: removal of unintended risk, diversification away from equities into other growth assets, and more efficient targeting of alpha.

REMOVING OF UNINTENDED RISK

When bond yields fall, the market-based value of liabilities rises and, unless there is an appropriate hedge in the assets, the solvency position declines. Unlike other risks within the portfolio, there is no expected return for this risk, unless there is an explicit view that bond yields are likely to rise. In principle this risk should therefore be hedged out.

Analysis of a typical pension fund reveals that a 0.5% fall in bond yields results in a 10% to 15% increase in the value of liabilities. However, more detailed modelling reveals that hedging out interest rate risk using a real return swap of appropriate duration only reduces overall solvency volatility from 13% to 12.5%. This is because there is a small positive correlation between real return bonds and equities that results in an offsetting of risk. Therefore, any decision to hedge out interest rate risk needs to consider the equity risk exposure at the same time.

In practice, there is a lack of supply of real return bonds to enable such hedging for larger plans. Swaps provide a more flexible tool for hedging the risk but they rely on the supply of real return bonds and, hence, suffer from the same problem.

For most pension funds, equity risk dominates overall solvency risk. This can be diversified by investing in a range of other asset classes including property, private equity and high yield bonds. As a result, a higher level of return can be achieved for the same level of risk.

Traditionally pension funds have sought alpha within the asset classes dictated by the strategic asset allocation. Using derivatives, such as futures and swaps, it is now possible to look for alpha elsewhere, e.g. in more inefficient markets or where more skilful managers can be identified. This includes currency overlay, portable alpha and some hedge fund strategies.

UK EXPERIENCE

While the UK defined benefit scene is broadly similar to Canada's, the early adoption of market-based pension accounting standards has resulted in some interesting developments. Investment banks have established Pension Solutions teams with significant actuarial resources to help corporations manage the solvency risk that now appears on the balance sheet. Typically this has involved the use of interest rate swaps and other derivatives.

A CLEARER DEFINITION OF RISK RELATIVE TO LIABILITIES AND A GREATER FOCUS ON RISK IS RESULTING IN CHANGES TO THE TRADITIONAL APPROACH TO INVESTMENT.

In a separate development, some of the larger investment managers have been building actuarial resources to provide strategic research and services to their pension fund clients. They are also positioning themselves to offer a "one-stop shop" for a pension fund's investment arrangements' offering strategic asset allocation and access to alternative asset classes such as property and private equity.

In summary, a clearer definition of risk relative to liabilities and a greater focus on risk is resulting in changes to the traditional approach to investment. This involves diversification into a broader range of asset classes and the use of derivatives to both manage risk exposures and improve the potential for alpha. ■