

Liability Matching

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LDI – LIABILITY DRIVEN INVESTMENT

Although this article concentrates on issues surrounding the growing interest in liability matching for UK pension funds, it is the increased focus on liability driven investment (LDI) which is the main approach adopted to effect change. People have a number of different things in mind when they talk about LDI, but the general consensus is that fundamentally LDI is the construction of an asset portfolio that takes the scheme liabilities as its benchmark. LDI encompasses liability matching and investment strategies that seek to minimise asset and liability volatility that sit comfortably within the particular scheme's appetite for risk and return.

FRS17 AND OTHER FACTORS AFFECTING SCHEMES

The introduction of FRS17 has pushed liability-driven solutions to the fore in recent years. FRS17 demands that one uses market values for both the liabilities and assets of a scheme. By seeking to express scheme surpluses/deficits on company balance sheets, the regime has been responsible for increasing the volatility of the net asset/liability position for quoted companies. With scheme liabilities estimated to amount to around 20% of the average UK company's capitalization, it's not surprising that so many are now looking at ways to reduce the volatility such deficits represent.

More recently the Pensions Act 2004 (the Act), which came into effect on 6 April 2005, introduces significantly more rigorous regulation to the management of UK-based pension plans. This comes as a result of growing public and government concern about the pension crisis facing employees.

Local authority schemes are not impacted by either of these. However, they have

been impacted by the following similar factors that have widened deficits for corporate pension schemes.

The key factors have been the triple falls in equities, mortality rates and interest rates. As interest rates have fallen over the long-term, this has had the effect of increasing the size of scheme liabilities. Coming at a time when risk assets such as equities performed poorly and mortality experience did nothing but lengthen, scheme surpluses have either reduced or turned to deficits or deficits grew bigger. For good measure Gordon Brown joined in and took away the tax credit from dividends that Pension Funds received for investing in equities. Estimates put this as a 'tax' of about £5 billion per annum. Quite sensibly, companies are now looking for approaches that enable them to hedge out the volatility on their balance sheets.

Since early 2003, UK FTSE index has risen by around 2000 points – an extremely good performance. Unfortunately interest rates and real yields on index-linked bonds have continued to fall. Most schemes that have not hedged out their interest rate and inflation risks on liabilities will probably have not improved their funding position – and they are still running a significant liability risk. The demand for interest rate and inflation hedging products will continue to be strong, particularly now that there have been a few high-profile attempts by schemes (such as WHSmith and Marconi) to sort out their deficits – reinforced by the new Pension Act described above.

The upshot for local authority schemes that have moved some way – or are thinking of moving – to a valuation basis closer to FRS17, is that they will be impacted by the same challenges described above that face corporate schemes. Also, Central

Government has made it clear that they are unlikely to make further funds available and they do not see increasing council taxes indefinitely as a solution. LDI offers local

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authorities a framework to manage their liabilities by using appropriate hedging products (see below). At the same time choosing an asset portfolio that reflects the required risk return characteristics agreed by the trustees consistent with the liabilities and funding position.

LIABILITY MATCHING WITH BONDS

Traditionally, schemes have used government conventional bonds (Gilts in UK) and IL gilts to hedge interest rate and inflation cash flows respectively. These large liquid bond markets provide cash flows, which are fixed at the outset (IL payments are linked to RPI index). More recently, funds have included corporate bonds in their hedging portfolios as a way of increasing returns from their assets. Unfortunately, cash flows are lumpy, interest payments make it more difficult to match cash flows, they are not long-dated enough and corporate bonds introduce credit risk. Furthermore, you have used up some of your assets, locking in returns at the level of yields prevailing at time of purchase.

... WITH GROWING INTEREST IN MATCHING USING DERIVATIVES

The difficulty of finding sufficient supply of long-dated bonds with the unevenness of the income flow and locking in assets to low yields has led to more schemes looking

at liability solutions that use derivatives. Although local authorities are not able to deal directly in derivatives, there are ways that fund managers are developing to wrap derivatives within funds in such a way that the client is able to benefit from the economic impact of the derivatives.

Interest rate swaps allow an investor to exchange fixed income liabilities for cash or Libor flows. Inflation swaps hedge inflation liabilities against cash. They are as liquid or marketable as the underlying bond markets – in fact they probably offer greater depth of liquidity now – and offer good matching out to 30 or 40 years and beyond. Also, a liability cash flow, in 17 years time for instance, can be matched exactly by the swap. A number of swaps can be put together to give any profile of cash flows required. As liability profile changes, the package of swaps can be altered to the new profile on a regular basis.

Ah, but what about counterparty risk and management of collateral and risk monitoring! These and other issues are all important points to consider. They do require more attention and controls put in place which are different from those required for bonds and equities. For those trustees uncomfortable with introducing derivatives directly into their portfolio or those that can't such as local authorities, they can use the new pooled fund or wrapped fund products which have derivatives embedded that deliver liability matching for interest rate and inflation liabilities. These products can combine the derivative overlay with assets that deliver different risk/return type characteristics.

The derivative markets have come a long way over the last 15 to 20 years in answering a number of concerns on their use. Still, to this day they have their champions – Greenspan – and their detractors – Buffet – but what is clear is that they do need more care and attention. Used properly they can help to manage risk and deliver risk/return profiles consistent with funds' targets.

WHICH LIABILITIES TO HEDGE

Since the liability profile is changing, it is unnecessary to match the cash flows

exactly. A regular re-matching exercise (some think annually) should be encouraged to ensure risks are still well matched. Cash flows that occur in more than 30 years time are likely to change considerably over the next few years. Even using swaps, it could prove costly to match terms of greater than 40 years since swap spreads start to widen significantly relative to swap spreads at shorter duration. Which liabilities to match will depend upon each scheme. At this stage, the trustees should discuss the risk budget or risk appetite that the scheme has for taking risk. The lower the acceptable level of risk then the more matched the scheme should be.

SPENDING THE RISK BUDGET

At this stage we should have agreed what instruments we will use to match liabilities. If bonds, then some of our assets have been used up and locked into pre-determined rates of return. If derivatives are used, then we are free to invest all assets how we wish (apart from some collateral required against swaps). Absolute return assets giving cash plus returns will match the cash or Libor liabilities left after hedging with swaps (described above) best.

However, the scheme will be looking for real returns over the long term and may well consider some investments in real assets such as equities, property, commodities, inflation assets and other classes such as private equity. The trustees need to balance the long-term requirement for the scheme to pay benefits as they fall due against the long-term cost of providing those costs, the contribution rate. The corporate sponsor would like some certainty that current contribution rates will not vary much. He will also want to see movements from the pension scheme not swamping his balance sheet.

TEAMWORK – CLIENT, CONSULTANT, FUND MANAGER AND INVESTMENT BANKS.

The issues discussed above are quite challenging for trustees of UK pension schemes (and are similar to different degrees for European pension funds). Each scheme will warrant a different set of solutions.

Resources are available at consultants, fund managers and investment banks to help schemes. Each of these market players has a role to play in the decision process. Each player has his own business aspirations. Investment banks are rewarded with transactions in return for providing intellectual, structuring and modelling resource; fund managers seek assets to manage in return for input on appropriateness and cost of IB solutions as well as offering their own solutions and advice on asset management based on hands-on practical experience of managing a variety of asset classes; and consultants receive fees based on actuarial and investment advice.

With such different skill-sets and business aspirations, Trustees ought to be encouraging teamwork – making these players work closely together to deliver solutions over next year or two. This will lead to better-balanced recommendations for managing the assets and liabilities for a particular scheme and help transfer relevant knowledge over time to scheme's trustees.



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