A HEALTHIER FINANCIAL ENVIRONMENT MAKES IT THE IDEAL TIME TO THE TACKLE THE PENSIONS ISSUE ONCE AND FOR ALL, SAYS **GILES KEATING** OF CREDIT SUISSE FIRST BOSTON.

A PROBLEM THAT WON'T GO AWAY

The concerns over pensions that dominated boardrooms a year ago have generally subsided as the stock market has recovered and bond yields have risen. These market moves have boosted assets and reduced the discounted value of liabilities. However, the issue has by no means gone away. There has been a stark demonstration of the vulnerability of pension funds to asset price fluctuations, even on the actuarial valuation basis, and all the more so under FAS 17 or the proposed revisions to IAS 19.

The effect has been to place the issue permanently on the radar screens of both equity analysts and rating agencies. Moreover, the widespread partial or full closure of final salary schemes, and their replacement by defined contribution (DC) arrangements, can hardly be regarded as satisfactory, as it leaves a widening disparity of benefits among employees, and removes a useful recruitment and retention tool. It is tempting to regard today's healthier markets as removing the need to tackle these issues. It is almost certainly wiser to regard the better financial environment as offering an excellent opportunity to address them properly.

BREACHING THE GAP. The core problem for investment of the assets of final salary pension funds is usually posed starkly as a choice between the higher expected returns but also higher volatility of equities and the much better liability matching properties but also much lower returns of bonds (fixed rate or inflation-linked as appropriate). Evidence of the gap in returns is strong, with equities in both the US and the UK offering a real annual average total return of some 6.5% over the past 150 years, while the current real yield on inflation-linked government bonds is about 2.5%.

Equally, of course, the volatility of equities, and the liability matching properties of bonds have been clearly demonstrated over the past four years. The debate since the publication of the Myners Report about the relative merits of these two broad asset classes has been conducted with almost religious fervour. Equity proponents point out, *inter alia*, how the volatility of returns on the asset class falls over longer holding periods. Bond supporters point to issues such as survivorship bias in historic equity returns data and the very genuine risk of decade-plus underperformance. To the extent that a consensus is emerging, it is that most funds should be looking to a rise in nominal and inflation-linked bond weightings – the speed depending on the pace at which their funds are maturing. Some advisers also argue that the act of closing a fund creates a step increase in its maturity, warranting a matching step increase in the bond weighting.

A STARK CHOICE? Already, some limited extra options have been put to most trustee boards, and some ideas have been implemented. Investment consultants are encouraging trustees to look beyond the modest yield pick-up offered by investment-grade corporate bonds. Property, following a two-decade decline as an asset class for pension funds, has recently seen a tentative renaissance, helped by the emergence of new pooled investment vehicles.

Attention has also been focused on so-called alternative assets, including hedge funds, private equity, high yield, emerging market bonds, currency and tactical asset allocation funds. Each offers some combination of potentially attractive return and diversification properties. However, while it is crucial to review all these possibilities, they have no coherence until they are drawn together into an overall strategy for targeting good returns while minimising asset volatility relative to liabilities.

Investment consultants usually provide data on the split between pensioners, actives and deferreds, and often show probability ranges for the fund's surplus/deficit on various asset allocations. Useful as this is, it does not provide sufficient information to allow a full, fundamental rethink of the fund's asset allocation strategy. To do this, it is necessary to look at a complete year-by-year projection of the fund's liability cashflows and the corresponding expected asset cashflows.

For any pension scheme, the liabilities can, of course, be viewed as a series of future outgoing cashflows. While the exact shape varies among schemes, it is usual for these cashflows to follow a roughly bell-shaped curve. Payments are initially modest, assuming that there are more current employees and deferreds than there are pensioners. Between seven and 15 years, the cashflows start to rise steeply, as more people reach retirement age and a peak payment rate may be reached in 20 to 25 years, always depending on individual scheme characteristics. Beyond this, the cashflows fall away gradually, into a tail that may be more than 50 years into the future. Equities make clear sense as an investment to fund the very long-dated part of these liabilities, given that they offer a high expected return, the volatility of which falls sharply with longer holding periods. Over 25 years, the volatility of the return on US equities has actually been less than on rolled-over Treasury bills. Some property holdings may also make sense here. The implied percentage of the portfolio needed to match this block of assets will vary according to each scheme's liability profile, but for typical funds it is likely to be somewhere around 30%.

However, as the holding period for equities starts to fall below 25 years, the volatility of the expected returns has historically been much higher. So for the shorter- and medium-dated liabilities, out perhaps as far as 25 years, the volatility of equities makes them less suitable for trustees and sponsors concerned about the risk of a move into substantial deficit for a period of time. If risk tolerance is greater, then the cut-off time horizon could be shortened somewhat, but would probably still be at least 15 to 20 years.

FINDING SUITABLE FUNDING. To fund these short- to medium-term liabilities, the best choice is likely to be some form of fixed income investment. Such investments should not be arbitrarily benchmarked to some generic such as the 15-year gilt index. Instead, their duration should broadly match that of the outgoing cashflows. Indeed, ideally, the expected cashflows from the investments should at least approximately match those of the liabilities. Moreover, to the extent that liabilities are inflation-linked, so should the assets be.

In short, we are suggesting there should be a liability-based benchmark, of the sort proposed by the majority on the Staples Inn actuaries' working party last year. But, crucially, we are recommending that this be applied only to funding of short- to medium-term liabilities, out to 15 to 25 years, depending on risk tolerance. This allows the remaining assets, as noted above, to benefit from the higher return on equities. Moreover, and again crucially, we recommend that substantial elements of yield enhancement from credit exposure and alpha transfer should normally be applied to virtually all the fixed income portfolio.

Taken together, these two points sweeten the lower-return pill of using a liability based benchmark to the point where the medicine is almost pleasant, particularly once the fund starts to enjoy the greatly reduced volatility. A simple example will illustrate this. Imagine a pension fund that currently has 70% equities and 30% gilts, and say the actuaries assume 8.5% return on the former, 5% on the latter, and 2.5% inflation. This gives an average assumed portfolio return of 7.45%, or 4.95% in real terms. Now, suppose the fund is rejigged, as proposed above, to align closely with its liabilities. Some 30% is retained in equities to match the liabilities beyond 25 years, while 70% goes into fixed income assets, and let us assume that all of these are inflation-linked, aligned with the liability cashflows, and with a current real return of 2.5%.

On top of this, yield enhancement adds say a further 150bp. From the actuary's perspective, the fund now has an average return of 7.1%. There is a price to pay for the vastly improved liability matching in this example, but it is not enormous: 35bp in annual yield, corresponding in net present value terms to between 5% and 7% of a fund with an average duration of about 15 to 20 years.

The key here, of course, is to find yield-enhancing assets which, taken together, will produce a figure such as the 150bp assumed in this example. Standard investment-grade corporate bonds, currently offering spreads over Libor of up to about 70bp, will not do the job. Fortunately, there is a wide range of other possibilities and the right solution is likely to involve a portfolio of these. Asset-backed securities, based on collateral such as credit card receivables or commercial mortgage cashflows, offer potential investment-grade returns up to 200bp or more over Libor. Investment-grade tranches of collateralised debt obligations have even greater potential. In either case, the return over Libor would then be combined with appropriate swaps to provide full inflation protection at the date appropriate to the liability cashflows. The same approach can be applied to the returns from many of the alternative asset classes currently being proposed by the investment consultants. So, for example, the returns from hedge fund investments or commodity funds can be overlaid with inflation-linked swaps to incorporate them into a strategy of this type. Yet another variant is to isolate the outperformance element of a favoured fund manager in, say, the Japanese equity market, by swapping out of their benchmark, a process sometimes known as 'portable alpha'.

'TAILORING THE EXACT DETAILS OF SUCH STRATEGIES TO INDIVIDUAL FUNDS WILL TAKE TIME AND SUBSTANTIAL INVESTMENT IN TRUSTEE TRAINING MAY BE NECESSARY TO OBTAIN AGREEMENT'

TAILORMADE SOLUTIONS. It is worth asking whether some of the same ideas cannot be applied to the post-final salary pension schemes. In the vast majority of cases, employers have tried to wash their hands, simply offering DC schemes. This is a short-sighted policy that is likely to lead to big problems in the future, as it gradually becomes apparent to employees how miserable the resulting pensions are likely to be – and how volatile their projected benefits have become. A potentially far better alternative is signalled by the foresightedness of firms such as Nationwide and more recently Barclays. Their formula is to offer an inflation-linked average salary scheme. This hybrid is intrinsically cheaper than final salary since it up-rates earlier years' service in line only with price inflation, not any real increase in an employee's pay. It also lends itself well to the asset allocation strategy outlined above. The short- to medium-dated liabilities can be funded through inflation-linked assets with yield enhancement, with the longer-dated liabilities funded very cheaply through equities, which offer a much higher potential excess return over price inflation than they do over wage inflation.

Tailoring the exact details of such strategies to individual funds will take time and substantial investment in trustee training may be necessary to obtain agreement. But the potential reward is to create funds in which, compared to the past, assets and liabilities are far better matched, risk is being taken in a much more focused way, and unremunerated risk, such as the mismatch between the duration of assets and liabilities, has been virtually eliminated. We see these are objectives as well worth investing in.

Giles Keating is Managing Managing Director and Co-head, Pensions Advisory and Structuring Group at Credit Suisse First Boston.
Giles.keating@csfb.com
www.csfb.com