risk management TRAPPED SURPLUS

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Executive summary

It will not have escaped the attention of pension scheme sponsors that almost everyone is clamouring for higher scheme funding levels – not least trustees and the Pensions Regulator. And there are, indeed, strong incentives for funding, not least potential reductions in tax bills and the risk-based levy of the Pension Protection Fund. Yet despite these demands, strongly performing equity markets and some increases to long-term interest rates in the UK have combined to give treasurers something new to worry about – the possibility of unproductive surpluses arising in pension schemes, where there may well be no future benefit accruals to be funded and little chance of obtaining a refund. This article looks at some of the generic measures available to scheme sponsors for avoiding trapped surplus.

robably the most sensible question to address first is exactly what definition of surplus do we wish to avoid? The answer, of course, is that it is whatever the individual or organisation considering the issue decides.

At some stage the opinion of the trustees (who are responsible for the assumptions in any actuarial valuation) will clearly be important and in most cases they will have to agree explicitly to any surplus avoidance schemes. We will return to this point later, but from the point of view of the sponsor, the extremes are likely to be a potential surplus under (a) IAS 19 assumptions, and (b) buy-out assumptions.

Perhaps a reasonable starting point for many schemes might be somewhere between these points – based on IAS 19 assumptions, but modified to use swap-based discount and inflation rates, fully justifiable demographic assumptions and realistic (as opposed to aspirational) investment returns from return-seeking assets, for example. There will, however, be situations where a consideration of surplus on a buy-out basis is clearly more appropriate – for example where a section 75 debt is likely to arise, or where there is the possibility of insolvency.

THE CONNECTION BETWEEN INVESTMENT AND FUNDING

STRATEGY The issue of surplus generation is clearly related closely to investment strategy – after all, a surplus is unlikely to be generated in schemes where there is a high degree of asset-liability

matching. Moving towards such strategies as funding levels increase is an obvious way to avoid unproductive surplus. This shows up clearly in asset-liability studies, where many traditionally invested schemes (those with a significant proportion of return-seeking assets) will find a greater than 50% chance of surplus against technical provisions arising in the medium to long term.

It is therefore increasingly common to find asset allocation triggers built into statements of investment policy. However, there may be perceived attractions to retaining a significant investment in returnseeking assets (such as equities), especially where it is not possible to hedge all risks cost effectively (longevity, for example).

Adjusting contribution levels in line with investment performance may be another sensible strategy for surplus avoidance, particularly for employers with a strong covenant that have agreed a long deficitreduction period (such as 10 years) with trustees, but is unlikely to be enough on its own.

Annual contribution updates, perhaps in accordance with a preagreed formula, may permit a more dynamic approach to funding, and recovery plans may take some advance credit for a favourable investment return compared with the discount rate used to value the technical provisions. In extreme cases, contribution holidays might even be proposed, but in a much more controlled way than before recent legislation changes.

TWO BASIC APPROACHES In addition to such dynamic investment and contribution strategies, at least two main types of surplus avoidance devices have been proposed: contingent assets and conditional assets.

Contingent assets Such assets (which include escrow arrangements, letters of credit, guarantees and charges over assets) are designed as an *alternative* to funding. They may provide increased comfort to

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trustees and members and may also result in the payment of a lower risk-based levy. They are not, however, equivalent to a contribution and will not result in a tax deduction (unless triggered). The disadvantage is that they can have an economic cost (by using up bank lines, for example, or impinging on loan covenants).

Notwithstanding these issues, the ideal contingent asset will be acceptable to both the Pensions Regulator and the Pension Protection Fund (PPF), but in practice those acceptable to the PPF usually comprise only a subset of those acceptable to the Pensions Regulator. The latter's *Guidance on the role of contingent assets in scheme funding* (July 2006) provides a useful comparison of the approaches to contingent assets adopted by the Pensions Regulator and the PPF.

For a contingent asset to be acceptable to the PPF, it must conform to strict guidelines, including the detailed wording of relevant documents (such as related company and third-party guarantees). These guidelines and standard documents can be found on the PPF website and are updated from time to time. It is important that any documentation follows the standard drafts very closely.

Another type of contingent asset that may be attractive to sponsors and acceptable to trustees and the Pensions Regulator, but probably not to the PPF, is a third-party insurance policy taken out by the trustees to pay out a sum related to the deficit in a scheme (as defined) in the event of the insolvency of the sponsor. Great care must be taken when attempting to place a value on insurance contracts. Clearly, the creditworthiness of the insurance company underwriting the policy will be critical. Specialist rating agencies exist to provide opinions on the ability of underwriters to meet claims. Insurance policies can also be used by sponsors as collateral in the issuance of PPF-compliant contingent assets, such as letters of credit.

For completeness we should also mention credit default swaps

(CDS) as an alternative to credit insurance. CDS have been much discussed in the context of pension schemes, but the actual take-up by schemes would seem to be somewhere between non-existent and negligible.

Conditional assets We shall use this term to refer to assets of which the value is dependent on the existence or otherwise in the scheme concerned of a surplus (as defined with respect to that scheme). Such assets, often with helpful descriptions such as tiered notes, partnership interests and protected cell captive insurance arrangements, take the form of true funding (that is, the scheme becomes the actual owner of the assets). The assets should therefore be eligible for tax relief as contributions, although economically they may have some similarities to escrow accounts. Assets of this type are structured in such a way that any growth in value above a predetermined level benefits the sponsor rather than the trustees and members.

Many products of this type are proprietary in nature and in practice the tax treatment advocated for a particular example may need to be treated with caution. The degree of detail available in the public domain on such products varies widely. In cases where the structure depends on specialist skills of the provider that would be hard for others to replicate, considerable detail may be easily available. In other cases, the providers of such solutions tend to be extremely wary of releasing details.

- The ideal characteristics of a conditional asset would be as follows:
- Transparency to all parties;
- Tax deductibility of amount injected (the contribution);Acceptability as an asset by the scheme trustees, the Pensions
- Regulator and the PPF;
- Tax-free income and capital gains;
- Tax-free 'distributions' to the scheme;
- Distributions to the sponsor at the same rate of tax as relief available on contributions;
- Low setup and running costs; and
- Avoidance of running foul of self-investment rules, although sometimes these vehicles contain assets previously owned or used by the company which it is intended should revert to the company if not required.

MONETISING A PENSION FUND SURPLUS In addition to these two basic approaches, trustees permitted to enter into derivatives contracts can also use option strategies whereby the trustees 'sell' (that is, monetise) any out-performance rather than letting it build up as surplus. The cash received from selling the option is then credited to the fund. This may provide trustees with greater risk management potential if the proceeds arising from the sale of an option on any potential upside are used to purchase another option that limits downside.

The mechanism underlying surplus monetisation is a transaction with a counterparty (an investment bank, for example) whereby a payment is *received* by the trustees of a scheme immediately against the payment *by* the trustees of a notional surplus amount arising at some time in the future when the option is exercised. The product is, therefore, a (potentially highly) structured option written by the trustees. As such, the counterparty will almost certainly require the trustees to provide collateral if a surplus develops.

Ignoring any basis risk (that arising from any difference between the actual investment portfolio and the notional one used to construct the option), setting the option strike price at a sufficiently high level means the trustees can be confident that they will only

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have to make a payment in future if a material surplus has arisen and that members' interests will not be jeopardised by making the payment. Meanwhile, the trustees have benefited from investing the option premium received.

More sophisticated versions of the structure could build in a cap to the maximum excess surplus paid to the counterparty, although this would reduce the premium receivable.

A common proposition, which is at least superficially attractive, is to invest the whole of the premium received in downside protection, so that the funding outcome will lie within a corridor rather than having potentially unlimited surplus or deficit. Assessing this sort of proposal involves a cost/benefit analysis against more conventional ways of lowering the degree of risk, such as a more defensive investment strategy.

CAPTIVE REINSURED ANNUITIES For sponsors focusing on surplus above buy-out levels, a different approach is required. A structure believed to have been put in place by at least one major multinational and seriously considered by many others involves the setting up of a conventional captive insurance company. The object is to keep a substantial proportion of the expected profits from a third-party annuity purchase within the sponsoring company (via the captive), while increasing member security.

As an example, consider a UK pension scheme with assets of \pm 60m, IAS 19 liabilities of \pm 80m and buy-out liabilities of \pm 100m. The first step is for the sponsor to contribute \pm 40m to the scheme, which will generally benefit from tax relief over a short period. The scheme then purchases a bulk annuity for \pm 100m from an authorised UK insurer on the condition that the insurer immediately reinsures its liabilities with a newly formed captive (retaining a 'handling' fee in the process). Additional funds (potentially \pm 10m or more) are put into the captive to a level acceptable to the relevant jurisdiction's regulator and sufficient for the primary insurer to be satisfied that it has little or no residual risk.

As long as the primary insurer continues to believe its risk is minimal, it may be prepared to offer what is, in effect, its guarantee for a relatively modest fee. However, it is important to remember that any arrangement may require the sponsor to provide collateral in the form of bank guarantees or letters of credit to the primary insurer in the event of credit deterioration, or other circumstances.

The result is that the trustees have purchased an annuity with a regulated insurer and therefore put the pension scheme members in a much stronger position. The involvement of this regulated insurer is key in that it would allow policies to be assigned to the members and the scheme to be wound up, hence removing risk from the sponsor, if so desired. If the transaction was simply with the captive, there would be no such possibility – the trustees would be investing in an

offshore asset vehicle, a decision which would need to be justified and would not remove contingent obligations on the sponsor if the captive failed. Such structures would also probably fail the self-investment test.

To the extent that the cost of delivering the benefits over a period of years turns out to be less than the buy-out cost (for example, through more favourable than expected investment performance, transfer levels, commutation levels or mortality experience) the captive can eventually be wound up and the profits taken by the sponsor. There may even be some opportunity for partial profit taking in the medium term. In the short term, the increase in member security to buy-out levels represents a transfer of value from shareholders to members (see below).

Although we shall not here describe any of the non-traditional products available from the new breed of authorised annuity providers, the concept of sharing outperformance is becoming more frequently discussed when buy-out quotations are obtained, albeit at a higher premium than for 'plain vanilla' annuities. Arguably, many of the benefits described above could be obtained without going to the trouble of setting up one's own captive – effectively the annuity providers will do this for you by means of a special purpose vehicle.

ANALYTICAL ISSUES While the traditional viewpoints of trustees (simplistically, no deficit) and the employer (similarly, no surplus) are fairly straightforward to understand, a real appreciation of how value is exchanged between shareholders and members when incremental scheme funding is undertaken near to full-funding levels is more difficult. One method that has been applied with some success is contingent claims analysis using option pricing theory. The general idea here is that the employer has a partial claim on any surplus and the trustee can expect at least a partial payment of any deficit. This is not a new idea (see, for example, Ben Alexander's 2002 London Business School working paper, *Gentlemen prefer bonds*), but one we can expect to see applied more by consultants in the future, particularly when buy-out is being considered as one alternative.

BACK TO THE TRUSTEES The pros and cons of sponsors choosing to take risk inside or outside their pension scheme has been debated elsewhere, but particularly for those sponsors with less need to manage the public equity markets, derisking schemes would still seem to make a great deal of sense. The question then is how to incentivise trustees to collaborate with scheme derisking, especially in relation to investment strategy. The improvement of member security is clearly the obvious approach, with the negotiation being about how much of this is done within the scheme (by conventional funding) and how much outside the scheme (by contingent assets).

MATURING SCHEMES Any treasurer actually lying awake at night worrying about trapped surplus in the short term probably needs counselling. However, given the higher funding levels now demanded by the Pensions Regulator, there is a potential medium to long-term issue as schemes mature unless investment and contributions strategies are carefully managed in tandem. Planning in advance for the possibility of surplus does make sense and there has never been a time when a wider range of strategies, products and analytical tools has been available.

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