MANY EUROPEAN CORPORATES' MANAGEMENT OF PENSION FUND RISKS HAS BEEN SUCH THAT IT IS CRUCIAL FOR TREASURERS TO GET INVOLVED IN ENSURING A BETTER MATCH BETWEEN ASSETS AND THE UNDERLYING LIABILITIES. A GREATER WEIGHTING IN BONDS MAY BE A SOLUTION, BUT GIVEN THE LACK OF LONG-DATED BONDS, HOW CAN PENSION SCHEMES ACHIEVE THE PERFECT MATCH? BY **JOHN SHUTTLEWORTH**.

The perfect match

Pensions financing is an oddity – and one for which normal financial laws do not apply. For example, £100 of equities is commonly felt to be worth more than £100 of bonds – but this is obviously a misleading concept.

Company treasurers do go to great lengths to micro-manage their businesses' interest rate and exchange rate risks. So why do they not apply the same principles to pension fund management?

The awful mismatching of assets and liabilities has been exposed in recent years – not only by the collapse of the stock market, but also the decline in interest rates. As pension liabilities are very long, the second event has proved particularly painful. The use of wish-fulfilment discount rates to 'calculate' the liabilities was exposed as nonsense when people saw the size of the deficits left behind by insolvent companies.

The lack of expertise among pension decision-makers has also been made worse by the growing realisation that people are living much longer than their parents (see *Mortal combat*, page 18, *The Treasurer*, July/August 2004). The biggest blow, however, is the simple truth that pensions are debt – just under another name.

WHICH COUNTRY IS THE HARDEST HIT? The country with the biggest pensions problem is undoubtedly the UK, largely because of the scale of private sector pensions. What has caused the British pensions crisis is a total asset/liability mismatch. Even today, equity investments still account for an enormous 67% of average UK pension fund investments. Meanwhile, the small amount that is in bonds usually has a duration which is a full decade shorter than the funds' liabilities.

One country that has confronted the pensions crisis issue is Holland where policymakers have made it clear that pension funds exist to provide pensions and that they should have sufficient monies to pay all their accrued liabilities at all times.

In Germany, meanwhile, funded pension arrangements are unusual. There are just over two hundred Pensionskassen which are prudently managed – essentially as insurance companies.

The Germans have, until recent times, largely relied on their book reserve system under which a company pays its retired employees' pensions out of cashflow. In the event of insolvency, a nationwide mutual insurer picks up the pieces. The latter is financed by a simple levy, based on the size of the pension liabilities. There is no fine-tuning of the levy according to the creditworthiness of the company.

For German treasurers, a key aim today is to hedge their businesses' pension liabilities using one of the new tax-favoured vehicles.

Switzerland is also unique. Since the mid-1980s, companies have been required to provide their employees with a minimum pension – a hybrid career-average plan. Employees are awarded a 'credit' each year, which is calculated as a percentage of that year's pay, to which a bonus (of at least 2.5%) is awarded. On retirement, guaranteed annuity conversion terms must be applied.

However, many insurers in Switzerland – not having understood these two guarantees – mispriced their contracts, and a number of them are now exiting the market. Today, the issue for treasurers is whether they should retain these two risks or insure them with the consequent leakage of value to investment bankers and others.

BONDS VS EQUITIES. The main concern to most European companies today must be how to manage the risks in the collateral held to back pension liabilities. What is best for the shareholders of a corporation is not necessarily what is best for individuals saving for their retirement.

There are a numbers of reasons why pension funds should favour investment in bonds. Equities can offer a higher expected return than bonds, and bonds can be more heavily taxed because returns largely take the form of income instead of capital gains. However, governments in most countries do encourage the provision of company-financed pension promises through tax breaks, the most common being the exemption from tax on investment income and capital gains.

When a business holds collateral to back its pension promises, it also makes sense for that collateral to take the form of the investments that would be more heavily taxed if shareholders were to hold them directly – in other words, bonds. This is a fundamental reason for bond investment by a pension fund.

That said, shareholders also want to see companies hedge their pension liabilities. They also prefer to see assets matched to liabilities as this increases their chances of understanding whether a company is really making profits.

It is also fair to say that pensions are bond-like. It is possible to construct a portfolio of bonds where coupons and redemption proceeds match closely, admittedly not perfectly, with the promised pension payments. A swap can get the match closer still (see *Steering clear of the pensions black hole*, page 7, *The Treasurer*, December 2004).

Executive summary

- **The mismatching of pension fund assets and liabilities was exposed by the stock market collapse and decline in interest rates, with the latter proving painful because of the length of pension fund liabilities.**
- **The problem is most acute in the UK where equities account for 67% of pension fund investments, and any bonds held in schemes are most commonly a full decade shorter than the plans' liabilities.**
- **Holland has confronted the pensions crisis with policymakers insisting that pension funds should have sufficient monies to pay their liabilities at all times.**
- **In Germany, companies have, until recent times, paid retired employees out of cashflows. In the event of insolvency, a nationwide mutual insurer steps in.**
- **Tax benefits represent one fundamental reason for pension funds to invest in bonds. Shareholders prefer company pension schemes to invest in bonds because they would pay more tax on direct investment in bonds themselves than investment in any other asset.**
- **Pensions are bond-like in the sense that it is possible to construct a portfolio of bonds whose coupons and redemption proceeds match the underlying liabilities. A swap can also get the match closer. However, obtaining the maturities required from bond investments is difficult given the lack of very long bonds.**
- **Financially strong companies should consider borrowing from banks or the capital markets to fund their pension schemes, and take advantage of the tax benefits.**

Obviously, these bonds need to be a mix of fixed and inflation-linked bonds. They also need to be long term.

But the clear lack of long-term bonds renders this impracticable. For most pension plans, only a defined proportion of their pension payments in present value terms fall due after the very longest bond.

Longevity is another exaggerated risk. Decision-makers, had they been properly advised, should not have been taken by surprise to learn of the steady improvements in life expectancy.

OTHER CASES FOR BOND INVESTMENT. When a company is financially strong and paying taxes, shareholders want the collateral – that is, the money in the pension fund – held in assets that would be heavily taxed if in their own hands.

But this view does not hold true at the other extreme – when a company is in financial distress. Here, shareholders prefer to minimise contributions to the pension fund (in other words, to keep the collateral as low as possible); and less obviously, to invest in volatile assets.

Money can be moved around within the combined entity of a company and its pension fund, but no matter how cleverly this is done, there is no alchemy. For every winner, there is a loser. More money in the pension fund does not change the amount of an employee's pension, but it does make his/her pension a more secure one.

Increasing the size of a fund's collateral also detracts from a company's liability status, hence the ability to walk away from an insolvent company and its underfunded pension fund.

MANAGING PENSIONS RISKS. The natural question 'how should we control our pensions risks?' now has a natural answer: 'in the same way that we control the other financial risks to the business'. True, pension cashflows have some unusual characteristics – they are long term, are usually neither wholly fixed nor inflation-linked and are subject to demographic risks. These features should mean that more effort is spent on risk management.

Any assessment of financial risk in a company should cover the combined entity of the core business and its pension scheme. A sensible assessment of a company's exposure to interest rate risk cannot be complete without considering how changes to interest rates will affect its pension liabilities. The case for including the impact on pensions within risk measures such as Value added Risk (VaR) is compelling. This would be a useful tool to promote understanding of where and how major risks are taken in the business – and whether the risks being underwritten are being taken in areas where the business has a competitive advantage.

ARBITRAGE OPPORTUNITIES. For a financially strong company paying taxes, the best route forward, if it has a pension fund deficit, should now be obvious. It should borrow money, place the proceeds into its pension fund and claim the tax relief offered.

This is a straightforward arbitrage for shareholders: less corporation tax is paid, and there is an arbitrage gain equal to the difference between the pre-tax return on the bond made by the pension fund and the company's after-tax cost of borrowing. Employee relations will also be improved.

In this instance, companies should go to more conventional providers of debt: banks or the capital markets. According to press reports, only BP, WH Smith and Marks & Spencer have turned in this direction to fund their pension scheme deficits and benefit from cuts to their tax bills. Most companies' management still measure pension costs according to cashflows, not the tax saved.

A more sophisticated form of arbitrage is for the pension fund to sell its equities and buy bonds. This obviously increases the leverage of the business (the pension fund and the business being considered together as one). Therefore, an equal and opposite purchase of equities needs to be made – the obvious one being of the company's own shares. A company could chose to finance this by borrowing.

The main benefit here is that the servicing of this type of borrowing is tax-deductible. The end result is a business that has the same leverage but pays less corporation tax. Few companies, however, have done this – a reflection of the effect opaque accounting standards can have on the behaviour of company management.

WHAT DOES THE FUTURE HOLD? The last few years in the pensions world have been fascinating. Shareholders have discovered that defined benefit (DB) pension promises cost much more than accountants and actuaries had been telling them. They have also learned that normal financial laws do apply to pension liabilities. DB pension promises can destabilise the company's core business if they are not hedged. Many shareholders have also learnt the hard way that neither company management nor trustees can be totally trusted to be competent when managing assets.

Playing the stock market can be a lot more fun than the day job. This, fundamentally, is why shareholders want transparent accounting. They want to know what company management are up to, and negligence and profusion need to be controlled.

If there is any remaining virtue in under-collateralising pension promises it will probably disappear over the next few years as employees become wise to this and demand higher wages in compensation.

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