A NOTE ON PENSION SCHEME DESIGN ISSUES

PREPARED BY THE FACULTY OF ACTUARIES PENSIONS RESEARCH GROUP

[Presented to the Faculty of Actuaries as a background paper on 18 November 2002]

ABSTRACT

This paper has been written to provoke discussion and will be used as background to the debate that will be held on 18th November. An earlier version was produced by the Faculty of Actuaries Pension Research Group and presented as a paper to the Faculty Actuarial Students' Society.

KEYWORDS

Pensions; Defined Benefits; Defined Contributions; Guarantees; Investment Returns; Compulsion; MFR; Stakeholder; Deficits

CONTACT ADDRESS

D. G. Fleming, M.Sc., F.F.A., Hymans Robertson, 221 West George Street, Glasgow, G2 2ND. Tel: +44(0)141-248-7007; Fax: +44(0)141-300-7803; E-mail: Donald.Fleming@hymans.co.uk

1. INTRODUCTION

This short note has been put together by the Faculty of Actuaries Pensions Research Group. The group is currently researching the direction that future pension scheme design is likely to take. The purpose of the note is twofold:

— to help build awareness of the changes that are likely to take place; and
— to obtain feedback and ideas from fellow actuaries and students.

The views in this paper are personal and do not, necessarily, reflect those of our various employers.

2. SCENE SETTING

2.1 The Group is conscious that the pressure on final salary schemes in the United Kingdom has been mounting steadily and, especially over the last few years, has become very significant for many schemes. As practitioners we see regular evidence of this. We therefore wanted to examine in more

© Institute of Actuaries and Faculty of Actuaries

detail what these drivers were and look to see whether there are alternative designs that represent a fairer share of risk for the various interested parties involved.

2.2 Over the period since the Group has been looking at this area, the trend has become a major issue. For example, Trade Unions have recently taken strike action against employers who have attempted to close their final salary plan.

2.3 A number of major U.K. companies have recently indicated that they are going to close their final salary schemes either for future accrual or for new entrants. Examples are British Telecom, Barclays Bank, Sainsbury's, ICI and Lloyds TSB.

2.4 We are also aware of the cyclical nature of pension scheme design in the U.K. For example, high price inflation in the 1970's brought severe criticism of some defined contribution schemes at the time since they were seen to provide unreasonably low benefits. In a number of cases, the reaction was to set up a final salary plan that would avoid the problem.

2.5 In this note, therefore, we go on to examine the following questions:

— What are the fundamental issues effecting pension scheme design?
— What are the alternative design options?
— What is the impact on members?
— What are the implications for employers?
— Can solutions be found which spread risk more evenly between interested parties?

3. Pressure Points

3.1 Final salary schemes are now coming under pressures from a variety of sources which:

— act to directly increase the cost;
— act to increase the cost volatility; and
— complicate the proper running of the scheme.

These pressures are looked at in more detail below.

3.2 *Lower Investment Returns*

3.2.1 An analysis of returns available on the U.K. stock market and prevailing rates of price inflation demonstrates that:

— the nominal investment returns available from investing in U.K. equities (the biggest component of most U.K. schemes' portfolio) have been reducing over the last few years;
— investment returns have also been reducing in real terms; and
— over the last three years, there have been substantial negative returns on equities.

3.2.2 In addition, the current Government has removed the ability of pension schemes to reclaim the advance corporation tax credit on dividends they receive from U.K. shares. This is a substantial loss of revenue for pension schemes.

3.2.3 The reduction in investment returns (in both real and nominal terms) has the effect of increasing the contributions required. The following are worth noting:

— Many schemes have liabilities that are 'fixed'. These costs are directly increased by the reduction in nominal returns.
— Liabilities may also be linked to price inflation or salary progression (which in itself is related to price inflation). A reduction in the real rate of return increases the cost of meeting these liabilities and pushes up contributions.

3.3 *Living Longer*

It is apparent that people are living longer than before. The life expectancy of a male born in 1971 was 69 years. By 2001 this had risen to 75 years. Females increased their life expectancy from 75 years to 80 years over the same period. These improvements in life expectancy are projected to continue into the future.

3.4 *Benefit Compulsion*

3.4.1 Successive Governments have forced defined benefit pension schemes to provide ever-improving benefits. For example:

— LPI revaluation of deferred benefit entitlement;
— LPI increases in payment to pensions earned in respect of employment periods from 1997 onwards;
— the Reference Scheme Test has required some schemes to provide an additional benefit underpin; and
— section 67 of the 1995 Pensions Act requires that pension benefits are not reduced retrospectively (although trust law may have already precluded this in many cases).

3.4.2 The general thrust of this benefit compulsion is that almost all benefits are now 'guaranteed' in nature. Previously, more of the benefit promise was typically met by discretionary increases. This discretion could be exercised to successfully navigate the scheme through periods of difficulty.

3.4.3 There is a particular problem currently in respect of guaranteed pension increases. In many cases pensions in payment were provided on a (voluntary) fixed percentage basis, 5% p.a. being a common approach. However whilst 5% p.a. looks modest when inflation is at high levels, the position is quite different in current economic conditions with inflation of under 3% p.a. 5% then represents a real increase on the value of pension each year.

3.4.4 The intention of awarding 5% p.a. fixed was to make a substantial step towards helping inflation proof the pension. It was never intended that pensions would increase in real terms as a result. However Section 67 of the Pension Act requires that changes which reduce benefits can only be made in respect of future employment periods. The trustees and employer are therefore burdened with an inappropriately high liability.

3.5 *'Open-ended' Liability*

3.5.1 There is a strong perception amongst employers that a defined benefits pension scheme represents an 'open-ended' liability. This has largely been caused by the effect of reducing investment returns and increasing life expectancy. Many employers are now seeing significant increases to the recommended contribution rate. Why should further increases not occur again in the future?

3.5.2 There, however, are ways of controlling volatility and we believe that scheme actuaries need to be more pro-active in educating employers and trustees. For example, an asset/liability analysis can be made available resulting in a scheme specific asset allocation. This point was reinforced by Myners.

3.6 *Minimum Funding Requirement (MFR)*

3.6.1 For many pension schemes, the MFR funding basis drives the contribution rate and for this reason it is often necessary to explain the legislation. Unfortunately, the complexity and lack of logic often makes this difficult and the result can be a loss of employer goodwill. For example, employers and trustees have found it difficult to understand why British Telecom's decision in 2001 to suspend dividends should, in some cases, have reduced the MFR funding level by over 3%.

3.6.2 With the benefit of hindsight, the actuarial profession should have lobbied harder for a less complex standard. We very much hope that the same mistakes will not be made when the MFR's replacement is introduced.

3.7 *Accounting Changes*

The new accounting standard for pension costs, Financial Reporting Standard 17 (FRS17) is being phased in between now and 2004, with a further extension to 2005 possible. When compared with the existing standard, SSAP24, it is likely that the pension charge will show far greater volatility and, in addition, there may be a substantial and volatile effect on the company's balance sheet. In many cases, the FRS17 charge will bear little resemblance to the smoothed SSAP24 charge adopted over previous years. Evidence suggests that finance directors will not appreciate this added volatility. We believe that the new accounting standard could be one of the main reasons that employers decide to cease offering defined benefits pension schemes.

3.8 *General Legislative Changes*

3.8.1 The administration of defined benefits pension schemes has become significantly more complex over the last 10 years. The requirements of the Pension Act have placed additional burdens on employers and trustees. Significantly more management time is required.

3.8.2 Pensions legislation has evolved over many decades and the current position is virtually impossible for most employers and trustees to comprehend. Although much of the day-to-day administration is delegated to third parties, employers and trustees are required to make financial decisions with increasing frequency. Many employers simply do not have the additional management time available. We believe that the Government needs to take a forceful lead in simplifying the area of pension's legislation. They also need to have the courage to consider adopting relatively radical proposals such as some of those put forward in the 2002 Pickering report.

3.8.3 The introduction of the Occupational Pensions Regulatory Authority (OPRA) deserves a mention. We acknowledge that OPRA has been extremely successful in important areas such as enforcing the prompt payment of contributions and ensuring that accounts are available on time.

3.8.4 We welcome the fact that OPRA is now turning its attention to the serious issue of moving forward the thousands of schemes in wind-up where little has happened for many years. Members' interests are often being jeopardised through expensive administration costs or an inappropriate investment strategy.

3.9 *Deficits*

3.9.1 A common situation for final salary schemes is that they enjoyed a surplus during the early to mid nineties but that the surplus has been eroded to the point where there is now a deficit in respect of accrued pension liabilities. The trend has been largely caused by the factors above. However it has been exacerbated in some cases by contribution holidays, which, in retrospect, were possibly a mistake.

3.9.2 In addition, there has been a general trend toward the adoption of an actuarial approach to pension valuations based on market related parameters. A market based valuation approach is arguably more volatile than its predecessor, the discounted income model. Market based valuation models have been significantly affected by recent stock market falls. In practice, many schemes are now facing a deficit having been in a surplus position for a number of years.

3.10 *Winding Up*

The winding up of a final salary pension scheme is a long, complicated process that brings additional risks for the trustees and the company. The process:

— currently takes typically between three and five years;
— requires a thorough audit of all data and benefit structures;
— involves a substantial effort to meet the various requirements on member communication;
— is expensive;
— needs careful and specific investment advice;
— carries a risk that the distribution of the assets could be legally challenged by one of the beneficiaries;
— raises conflicts of interest between trustees and the company; and
— is very time consuming for the trustees partly because of the inherent complexity and partly because of the lack of clarity in some legislative areas e.g. what approach should the trustees take to 'gmp' equalisation?

3.11 *Benefits on Wind Up*

3.11.1 When the assets of the scheme are distributed and there is a solvent employer, it is normally possible to pay out close to MFR transfer values (since the employer will have to 'top up' to this level under 'debt on the employer' legislation).

3.11.2 However the substantial increase in deferred annuity costs over recent years means that the MFR transfer value will only be able to secure a guaranteed annuity policy of approximately 30 – 80% of the accrued pension (dependant on age) for non-pensioners (pensioners would be expected to receive close to their full entitlement).

3.11.3 The realisation that 'guaranteed' benefits can be reduced to such an extent may come as an unpleasant surprise to members and the company alike. It is particularly important, therefore, that the loss of guarantee on wind up is flagged up by actuaries in their regular financial appraisals of the scheme. If the employer is insolvent, then there may be no prospect of additional funds to restore even the MFR position.

3.12 *Investment Advice*

There has been much debate recently about appropriate investment strategies for defined benefit schemes. Our view is that too little emphasis has been placed in the past on taking the liabilities fully into account when setting investment strategy. This is likely to change, not least because of the adoption of the Myners principles.

3.13 *Stakeholder Pensions*

All companies with 5 or more employees were obliged to comply with the new Stakeholder Pensions requirements by October 2001. The introduction of Stakeholder Pensions will influence future scheme design. Some early observations are that:

— The actual take up of Stakeholder schemes has been very slow to date with many employers electing either to extend the eligibility of their own

occupational scheme or to set up a Stakeholder arrangement with a nil employer contribution.
— The slow take up of Stakeholder has, paradoxically, been accompanied by a recent surge in the market for Group Personal Pension Plans.
— The introduction of the 1% charge ceiling has forced financial institutions to drastically reduce the charges inherent on insured schemes. In fact, a 0.5% annual management charge is very common.
— Such cost reduction can only be good news for the consumer and increases the attractiveness of using insured defined contribution schemes.
— The introduction of Stakeholder has also been accompanied by a rapid extension of web based technology. The relatively 'hi tech' functionality of Stakeholder schemes may make them more appealing to certain companies.
— The Government may not be able to encourage wider take up amongst the low to medium paid without introducing compulsory contributions.

3.14 *Consumerism*

3.14.1 Both endowment mortgages and Equitable Life have been the subject of recent very adverse press attention. Partly as a result, the endowment mortgage market is now in steep decline. We would argue that there are the following common threads which are of relevance in pension scheme design:
— an element of risk that was not fully appreciated by the consumer at outset;
— a complexity that was perceived as obfuscation; and
— an exercise of actuarial discretion, the results of which were felt not to have always been beneficial.

3.14.2 Today, consumer needs have to be treated extremely respectfully with a careful eye on any legal action that may result if that consumer has been misled, albeit unintentionally. These factors argue strongly for pension scheme designs which are clear, simple and transparent. The concepts should be easily understood with the member or consumer able to fully appreciate their obligations.

3.15 *Internationalism*

Companies in the U.K. are steadily becoming more international in their outlook. In many cases U.K. companies are seeking further to develop international markets. In addition, many U.K. companies are subsidiaries of international multi-national companies or have alliances with overseas operations. In many cases, nevertheless, U.K. pension arrangements will be unaffected in the short term by the additional international dimension. However, over time, trends in the provision of pension scheme design internationally will inevitably tend to influence pension design in the U.K.

4. Alternative Scheme Designs

4.1 Figure 1 sets out in simple terms a risk assessment profile to the company of the most commonly used scheme design types. The analysis is simplistic and does not attempt to grade the risk (for example the risk of future salary increases is prevalent for both designs 1 and 2 but is higher for design 1).

4.2 The following points are:
— Defined benefit designs all carry a higher risk profile than defined contribution designs.
— Defined benefit schemes could avoid the risks attendant on wind up by funding to a 'buy out' level. This would probably be prohibitively expensive for existing schemes but might just be an option for new final salary schemes.
— The main risks in defined contribution schemes are to members and involve low retirement benefits and inappropriate investment choice.

5. Preliminary Conclusion

5.1 In practice most defined benefits schemes are final salary in nature. There are other types of scheme design that may be considered as the drift away from final salary schemes now speeds up.

5.2 We recognise that defined benefits provision is causing difficulty for many employers. However those employers who do offer a good defined benefit scheme may enjoy a competitive advantage in the recruitment market.

5.3 As can be seen from the grid above, all common types of defined benefits schemes involve substantial risk to the company. That risk can be reduced through the use of one of the following:
— Employees could be asked to share a fixed proportion of the ongoing costs (rather than only the employer cost being variable).
— Career average schemes allow a better assessment of the liabilities to be gauged since the link to future salary inflation is normally eliminated.
— Defined benefits schemes could provide defined contribution nursery sections for younger, more mobile employees. This would reduce the defined benefit promise and the 'portability' might better suit these employees.
— A lower risk investment strategy can be adopted.

There are also likely to be other, more innovative designs, which we have not considered at this stage.

Risk To Company	Defined Benefit						Defined Contribution		
	Design 1	Design 2	Design 3	Design 4	Design 5	Design 6	Design 7	Design 8	Design 9
People living longer	✔	✔	✔	✔	✔	✔	✘	✘	✘
Lower investment returns	✔	✔	✔	✔	✔	✔	✘	✘	✘
High salary increases	✔	✔	✔	✔	✔	✔	✘	✘	✘
Increasing administration costs	✔	✔	✔	✔	✔	✔	✘	✘	✘
Negative PR of winding up	✔	✔	✔	✘	✘	✔	✘	✘	✘
Debt on the Employer	✔	✔	✔	✘	✘	✔	✘	✘	✘
Loss of control of surplus	✔	✔	✔	✔	✔	✔	✘	✘	✘
Employee disappointment with low wind up benefits	✔	✔	✔	✘	✘	✔	✘	✘	✘
Employee disappointment at eventual retirement income	✘	✘	✘	✘	✘	✘	✔	✔	✔
Poor investment choices by Employee	✘	✘	✘	✘	✘	✘	✔	✘	✔

Design	Description	Design	Description
1	Final Salary	6	Money Purchase with Final Salary underpin
2	Career Average	7	Money Purchase (Trust Based)
3	Final Salary with Money Purchase underpin	8	Stakeholder
4	Insured Final Salary with 'Buy out' Funding	9	Group Personal Pension
5	Insured Career Average with 'Buy Out' Funding		

Figure 1 Risk assessments for different designs

5.4 In practice, many employers will adopt a defined contribution vehicle of some description. Such a design carries minimal employer risk.

5.5 Defined contribution schemes carry a number of risks in turn for the employee (since the risk is being effectively transferred away from the employer). The main ones are:

(1) Contributions have usually been significantly lower than for defined benefit schemes resulting in lower overall expected benefits.
(2) The pension fund obtained at retirement is volatile – varying significantly with future investment returns.
(3) Employees need to make sophisticated choices about investment strategy and are not usually sufficiently knowledgeable to do this.
(4) At the moment a retiring defined contribution scheme member is normally compelled to purchase an annuity. Changes in prevailing annuity rates can significantly affect the amount of pension payable.

5.6 We believe that there will be a gradual shift away from defined benefits schemes over the next five years or so towards defined contribution schemes. This shift will probably have been accelerated by the severe stock market falls seen this year. We also believe this change will be detrimental for employees. Employers should be encouraged to support defined benefits provision through the Government removing imposed barriers where it is possible to do so.

5.7 In order to prevent some of the historic problems with defined contribution schemes re-occurring and causing misery for pensioners, we recommend that:

(1) Scheme members are given clear information to allow them to make appropriate investment choices and to understand the likely level of benefits that will be paid.
(2) There is a target level of pension built into the scheme. This is not a promise but simply a means of ensuring that contributions are reasonable and that the ultimate pension is adequate.
(3) Three yearly reviews of the scheme should be carried out to assess whether progress is being made towards the target benefits and whether contributions need to be adjusted.
(4) Annual illustrations should be given to members in as simple a way as possible to help them understand their likely pension benefit.

We acknowledge that work is currently being progressed on defined contribution simplification. Statutory illustrations will be in ‘today’s terms’ with effect from April 2003 and the Government is working on a combined illustration of private and state benefits. Both these areas should help to move forward defined contribution simplification.

Printed by Bell & Bain Ltd., Glasgow