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TOPICAL PENSION PROBLEMS (A PERSONAL OVERVIEW)

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Abandon me not when I grow old!

(Psalm 71, verse 9)

1. SETTING THE SCENE

1.1 Much discussion is taking place currently in the United Kingdom on the subject of pensions. Conferences and symposia have been conducted at various times on many aspects of pensions by such diverse bodies as the Policy Studies Institute (1), the Institute of Fiscal Studies (2), the Trades Union Congress (3), the Pensions Management Institute, the Confederation of British Industry, the National Association of Pension Funds and even our own Institute (4) (in the case of our Institute, on the whole field).

1.2 The Government announced an all-embracing enquiry on 16 December 1983. This has been divided into separate parts. Evidence for the first part concerned with 'portable pensions' was required by 31 January 1984. Despite the very tight deadline, written evidence was obtained from over 1,500 different sources. This serves to show just how much interest was currently being aroused. The final results of the full Government enquiry are not yet available (September 1984). The unprecedented speed with which the Government has proceeded demonstrates the importance that it attaches to the issues raised, and suggests that any prompted legislation will be given a degree of priority.

1.3 Learned papers as well as new journalistic articles seem to be published almost daily. At one extreme are papers presented by those who fear that a rapidly expanding aged and retired population will place such severe financial strain on the working population that they will be unable or unwilling to permit continued transfer of resources to the pensioner population at the rate current today. This school of thought separates into two: (*a*) those who feel that the answer lies in privatizing the state pension scheme (5), and (b) those who advise that privatizing state pensions is not even part of the answer—how the pensioner receives his income is irrelevant if the workers perceive that the pensioner is enjoying a higher standard of living than they are themselves (6). Such papers tend to be presented in a professional setting, and, if published, appear in journals of professional bodies or learned societies.

1.4 At the other extreme are the charitable organizations such as Age Concern, which are concerned with the care and welfare of the elderly. The main fear of such bodies is that the total needs of the elderly (many of them only partly financial) are not properly understood or provided for. Such organizations are not particularly concerned about where the finance to provide for the elderly comes from, as long as it comes. They receive much coverage in the popular media, both press and television, because the needs of pensioners at the individual level are very real and offer emotive material for journalists.

1.5 Groups at each extreme have gone to pains to set out the problems as they see them, and their solutions—again as they see them. Of course there are also groups and individuals who take a middle course. Individuals from all parts of the spectrum regroup when dealing with the specific problems associated with 'early leavers', i.e. employees who change jobs, are made redundant or retire early from a pension scheme of which they were a member, for whatever reason. Here the split is between those who, when designing occupational pension scheme structures, believe that in the main it is the contribution level which should be specified—*the defined contribution school*—and those who believe that in the main it is the benefit level that should be specified—*the defined benefit school.*

1.6 The former group are at their extreme, represented by the Centre for Policy Studies (7) who could be said to support a sophisticated form of 'money purchase' arrangement (8). The Centre for Policy Studies have coined the phrases, 'portable pensions' and 'personalized pensions' both of which have now passed into the realms of accepted journalistic terminology thereby receiving no further explanation when used in articles to be published on the financial pages of magazines or newspapers. But, despite this, even these self-same journalists attach different meanings to these terms.

1.7 The latter group—the defined benefit school—are at their extreme represented by the National Association of Pension Funds. They could be said to support 'final salary' arrangements.

2. THE PROBLEMS

The real problem

2.1 Many people, in their rush to find a solution to the 'pension problem', as they perceive it from their own specific angle, may have lost sight of the real function of a pension fund. They appear to fail to understand that for rational discussions to be conducted about whether to introduce changes in the structure of occupational pension schemes, those seeking changes must understand the basic purpose of a pension fund, and how and by whom the benefits are to be paid. Many people seem to have their own personal concept of the function of a pension scheme and wrongly assume that others share that concept. They then proceed to argue their case from this personal standpoint and then wonder why they fail to convince the opposition of the virtues of their proferred solution. During the discussion at the conference convened by the DHSS (9) preceding the announcement of its enquiry, it even appeared that this was true of some pension professionals. The following examples are chosen merely to illustrate this point and are not meant to imply either agreement with or criticism of the individuals involved.

2.2 Mr Heyes of the NAPF, in his presentation stated that "research showed that pension fund members wanted a viable pension at retirement rather than detailed day-to-day control over their investments", whereas Mr Vinson, representing the Centre for Policy Studies, said that "he was impressed that the Legal and General Survey showed that 25% of those questioned *did* want personal and portable arrangements, rather than that 75% did not want such arrangements". A classic example of the 'cup half full, cup half empty' debate.

2.3 The discussion paper presented by the Association of Consulting Actuaries provided yet another example of pensions professionals arguing their case from their own particular standpoint. They perceived the problem as follows: "The 'early leaver problem' has arisen because of the impact of inflation on early leavers' benefits etc." Their paper then set out their solution to the problem thus perceived.

The early leaver problem

2.4 What exactly is the early leaver problem? Membership for eligible employees of occupational pension schemes in the U.K. is normally compulsory (although the Government has now produced a consultative document (10) with proposals to change this). Members of such schemes are typically required to contribute to it about 5–7% of their salary, most schemes then provide the employee with a pension of *1/60*th of final salary for each year of his membership. Obviously actual benefit formulae are far more complicated and are subject to various caveats for tax and other reasons, but that simple formula will serve for illustrative purposes. This means that an employee who remains with an employer all his working life—or at least the last 40 years of it—can aspire to a pension of *2/3*rds of his final salary. The problems arise if he changes jobs midstream.

2.5 Let us consider a very simple example of two individuals, A and B, who live in an ideal world in which inflation does not exist. They both have been promised a pension when they retire, of *1/60*th of final salary for each year of service. For the first 20 years they earn identical salaries of £X p.a.

A is then offered promotion, which involves trebling his salary and he thus earns £$3X$ p.a. each year until he retires 20 years later.

B is not offered promotion, but moves to an exactly similar job to A at an increased salary of £$3X$ p.a. *but in a new firm*. He too retires 20 years later without having any further promotion. Then:

A's pension $40/60 \times 3X = £2X$ p.a.
B's pension is $20/60 \times X + 20/60 \times 3X = £1\ 1/3X$ p.a.

B who has changed jobs will no longer receive the *2/3*rds of final salary pension that he still aspires to and he cannot understand why. The word aspires has been deliberately chosen because the problem of the early leaver is partly a problem of falsely raised expectations and only partly a problem of the reality of the situation.

2.6 All that *B*'s former employer has actually promised him is that for each year that he was working for him, he would provide him with a pension of *1/60*th of his final salary. The final salary received from him, not the final salary he would be receiving immediately prior to retirement from some new employer. The ex-employer can easily justify himself in his own eyes by saying why should he have to contribute to an increased pension which has been caused by pay rises over which he has no control and may well have decided not to give had he been in control. The final salary with the ex-employer may not have been final in the employee's eyes, but it was certainly final in the ex-employer's eyes and also legally. The new employer has certainly paid the amount as promised for the years that *B* will serve with him. This example certainly demonstrates a fundamental flaw in the design of the typical pension scheme.

2.7 It is interesting that as long ago as 1970 this problem was recognized. Stewart Lyon (11), in opening a discussion on the then proposed National Superannuation and Social Insurance Bill, predicted that "occupational schemes would never fulfil their proper role in the pensioning of employment so long as an employee's accrued pension rights, if they were significant, could be lost on a change of job." It has required 14 years to pass for the Government to heed this prediction and take action.

2.8 The Government too has proposed a solution to the early leaver problem which only solves the problem as they, the Government, perceive it, not as it actually is. The Government has recognized that there is a problem with early leavers. But it has been convinced that the problem is that inflation is eating away the value of the pension promise of the first employer. It has therefore proposed that the ex-employer inflates his ex-employee's pension promise by 5% p.a. Inflation is a pernicious evil, but in this case it is at most a symptom and not the cause. Where has inflation entered into the above example?

2.9 Inflation causes many problems and hardships, but the problem of the early leaver *vis-à-vis* final salary pensions schemes cannot, in all fairness, be attributed to it. Inflation could only be regarded as wholly to blame if it were demonstrated that employees received *only* inflation-linked salary increases. This is patently not so. There are still age, length and service, merit and productivity increases. By proposing legislation which attacks only one of the effects of the problem instead of attacking the problem itself, the Government is being very shortsighted and merely paving the way for further problems to arise. These have surfaced with arguments as to cut-off dates as to when the proposed legislation should apply, as well as equity between early leavers and pensioners and many other technical problems which are causing severe headaches to the pensions professionals.

2.10 The Government should look again at the fundamentals and not settle for stopgap solutions which give rise to further problems in addition to the initial problem, instead of replacing those, which they are seeking to solve.

The adequacy problem

2.11 Yet another example of 'begging the question' is given by quoting the Chairman of the Occupational Pensions Board who at this same initial conference convened by the DHSS (9), in answer to the question "Why are final salary schemes considered less primitive than money purchase schemes?", commenced his reply—reflecting a majority view—with the assertion that "Employees need a pension related to their pre-retirement earnings and money purchase schemes cannot guarantee this". As he developed his reply it was clear that he assumed that an income-related final salary was necessary to maintain a reasonable standard of living in retirement. That this is not necessarily so can be demonstrated by considering the two extreme cases of (*a*) the person who is only earning a subsistence income. In such a case a pension which was a proportion of this subsistence income would still be *below* subsistence level; and (*b*) the person who is a director of a multi-national corporation. In this case, if the same proportion as used above was applied to his pre-retirement income—especially if added to income from his other savings (for it would be considered very profligate for such a man not to have made savings)—it would be more than sufficient to provide a 'reasonable' standard of living on retirement.

2.12 What then is meant by an 'adequate pension'? Proponents of final salary funding would define this as a proportion of final salary, thereby exhibiting a confusion between the welfare and savings aspects of pension provision. The welfare aspects, i.e. subsistence, or subsistence plus some arbitrary margin, can differ from individual to individual and bear no necessary relationship to final salary. After all, the unemployed man with zero salary still has welfare needs.

2.13 A writer as long ago as 100 BC observed with regard to poverty which is related to this concept of 'adequacy': "Paupertas enim est non quae pauca possidet, sed quae multa non possidet" which, roughly translated, means "one is poor if one does not own as much as one's neighbour".

2.14 Poverty is a relative measure. Nevertheless, one must make some attempt to fix some level above which poverty can be assumed not to exist otherwise there will be a continuous escalation of perceived needs. An arbitrary level of adequacy of pension need not, however, have to provide for exceptional cases, no matter whether a flat rate or earnings-related benefit is chosen. There will always remain the need for social security structure to deal with exceptional cases.

2.15 Most people in retirement, if asked, would like to maintain, or even improve on the standard of living that they have managed to achieve during their working lives. It is with this aspiration that the savings aspect of pension provision is concerned. Once an aspired level of income has been achieved by an individual—different for each according to his own perceived needs—income above this level is acceptable, even desirable, but not essential. It would seem, therefore, that an 'adequate pension' can be defined in a fairly absolute fashion rather than as a relative measure, i.e. as a fixed proportion of final salaries. Each pension can notionally be split into two components: a welfare component (the adequate pension) and the savings component (the icing on the gingerbread).

2.16 There is much confusion by people between the welfare and savings objectives of providing pensions and it is important in any discussion of the subject to keep the two concepts separate. It can be argued that the welfare aspect should be dealt with by Government and can be of a flat rate variety; the savings aspect should be covered by the individual or company as is appropriate.

2.17 If pensions are considered in the manner described above as a mixed package, the state would provide the basic welfare needs however they are defined, and the individual and/or company the remainder, the occupational scheme plus private savings will provide the wherewithal for the enjoyment once the state has taken the sting out of the endurance aspect. It is then up to the individual with his different perceived needs to determine the level of enjoyment, and hence savings, that he desires for his old age.

2.18 It is important that organizations (and individuals), when setting out their positions regarding pensions (or any other subject for that matter), appreciate any underlying assumptions that are being made with regard to their stated views. No agreement can be reached in negotiations unless the interested parties can first agree what are their fundamental differences. It has been demonstrated above that the pensions debate has not yet been reduced to its fundamentals. In particular it is important that more prominence is given to the fact that there are two aspects to pensions—the welfare and the savings aspects.

2.19 Until people can agree, or agree to disagree, problems will remain. What then is, or should be, the function of a pension fund?

3. WHAT WAS THE FUNCTION OF A PENSION FUND?

3.1 Over the years the function of pension schemes in the United Kingdom has changed. In the late 19th century private pensions were granted on an *ex gratia* and personal basis to favoured employees of a company as a reward for long service. Often there was no formal scheme, only statements of intent or merely expectations based on custom. Informal arrangements of this character, without legal protection, offered opportunities for abuse, and preferential treatment of individuals often soured employer–employee relations since the arbitrary nature of the pension award could tempt an employer to use the threat of withholding a pension as a means of placing pressure on an employee. More formal and legally protected arrangements were clearly advisable and there was soon pressure to introduce them generally. Section 32 of the Finance Act 1921 set the pattern for occupational pension funds as they are now known. Similarly, the Beveridge Report (12), is often considered as the founding document of the modern welfare state.

3.2 The state retirement pension is usually paid to men at the age of 65 (and to women at the age of 60) and not before. For people who draw the pension and go on working there is a system of reductions in the state benefit corresponding to the amount earned. This is commonly referred to as the 'earnings rule'. For those who defer pensions there is a fair (perhaps generous) system of increases. This, combined with the Superannuation Funds Office's insistence on a normal retirement age, has forced firms to introduce a fixed retirement age into their occupational pension schemes. Any younger retirement age could have led to a jump in the level of retirement income at age 65 (60 women) and any other retirement age could lead to the operation of the 'earnings rule' for several years. Of course, despite this, some occupational schemes do have retirement ages other than 65 (60 women) but even in these schemes the retirement ages tend to be fixed rather than flexible. In 1979, 90% of members of occupational pension schemes were on schemes with a normal retirement age which coincided with that of the state scheme (13). In the past, pension schemes have been seen as a way of providing an orderly pattern of retirement and career progression. A fixed pension age reduced the pressure on the employer to retain old staff and was also a means of encouraging continuous service. Trends are developing against this practice of a fixed retirement age and the existence of a pension scheme may no longer be the means of divesting a company of its staff as soon as they are past their useful working life.

3.3 The following are extracts from the Trades Union Congress evidence (14) submitted at the end of 1981 to the Social Services Committee of the House of Commons looking into the age of retirement. "We do not consider that there should be a blanket requirement to give up work at any age, but it is accepted that through collective bargaining it can be agreed that employees should give up particular occupations at a specific age." . . . "The most acceptable change would be to allow flexibility for both sexes to retire within a specified period before and after a notional common pension age." After considering evidence from the Trades Union Congress as well as of many other organizations and individuals the Committee report was published (15). It recommended a scheme of flexible pensions based on a new notional common pension age of 63. The report emphasized that 63 is not to be regarded as replacing either age 60 or 65 in the present system, but merely to be used as a reference point on which the concept of a flexible retirement might be based. In addition to this the latest Council Recommendation (16) from the E.E.C. on the subject of community policy towards retirement age contains the following two commitments: (i) after a certain minimum retirement age—identical for men and women—workers should be free to choose the date of their retirement; and (ii) financial incentives to promote the early departure of elderly workers should only be used in exceptional economic circumstances and are not to be considered as an integral part of flexible retirement system.

4. WHAT IS THE FUNCTION NOW?

4.1 It is not easy to determine the main function of pension schemes. As has been stressed in this paper, people have differing ideas, if not of what scheme functions are, at least of what schemes should or should not achieve. The following examples serve to illustrate this point. In the initial evidence given by the Institute of Personnel Management to the OPB for its report on 'early leavers' (17), the Institute wrote: "... In order to ensure the best use of manpower, employee mobility should not be discouraged. ..." It considers that the different treatment in relation to pension rights of people changing jobs can often act as an impediment to mobility. By implication the Institute feels that one of the functions of a pension scheme should be to provide "no impediment to the mobility of labour". In fact one of its conclusions in this original evidence was that "... full transferability of pension rights ... should be the ultimate aim". Others, such as miners' leader Arthur Scargill, in his widely reported conflicts with the investment managers of the mineworker's pension scheme, feels that pension funds have a role to play in the wider community and that the funds have a function in relation to their investment obligations to the whole economy. Yet others, and I imagine the term 'others' here includes the vast majority of pension fund members, would agree with the NAPF's view that pensions were provided to enable one to enjoy retirement rather than endure old age.

4.2 It is always unfair to take quotations out of context, so it is only right and proper to preface the following quotation, taken out of a recent Institute of Actuaries Student's Society paper (18), with the fact that it comes at the end of far more conventional list of functions of pension funds. Nonetheless, it is stated as a function. "Pension Funds present a challenge to actuaries and other professionals to ensure that a flow of contributions now is transformed into a retirement income for each individual with his particular history and characteristics."

4.3 It will be clear from this discussion that the functions of pension funds are not mutually exclusive or very limited. The following are some other functions which are currently quoted: morale booster, aid to recruitment, tax-protection, deferred salary, good industrial relations, compulsory employee saving. If any two functions stand out from the rest they are probably the concepts of deferred pay and the means to enjoy retirement.

The deferred pay problem

4.4 The concept of pensions as deferred pay has been around for a long time, at least since a paper published in *J.I.A.* in 1902 (19). More recently this concept, widely promoted by the Trades Union Congress, has gained official recognition in the evidence supplied by the Government Actuary to the Wilson Committee (20). The first paragraph of this evidence reads as follows:

For the 11½ million employees who are members of occupational pension schemes, the pensions and other benefits provided by these schemes are normally part of their terms of service. The employer promises that, through the medium of his pension scheme, future payments, will, in specified circumstances, be made to his employee or his dependents. Although the pension scheme benefits will normally be paid after the employee has retired or left service for some reason, they effectively form part of his remuneration. Indeed, pension scheme rights are often referred to as 'deferred pay' and this concept underlies the preservation provisions of the Social Security Act 1973.

4.5 The concept of pensions as deferred pay has become so universally accepted because it is such an apparently simple concept to explain. It is generally accepted that if pension contributions were not made by the employer and/or employees it is likely that the employees would receive more pay. It is true that pensions resemble pay in appearance. They are paid by the former employer or his nominated insurance company, are related to the former employee's salary at retirement date (according to the latest Government Actuary's Department Survey (13) at least 90% of schemes are final salary related) and are taxed under PAYE (Pay As You Earn).

4.6 There is a danger, however, in the use of the term 'deferred pay' as synonymous with pension. What seems at face value a simple concept to explain has very complex connotations and may lead to unrealistically raised expectations by the members of pension schemes. Thinking of pensions as deferred pay and the employer's contributions as effectively part of remuneration has led the layman to think that a regular contribution, which in some ways bears a 'fair and reasonable' relationship to the salary from which it is notionally deducted, is put aside each year and invested to pay each individual's 'deferred salary' when the time comes. Pension costs are frequently quoted in terms of $x\%$ of payroll to employer and $y\%$ of salary to employee (where y can be as low as 0). This method of expressing costs as a rate rather than a definite sum makes allowance for changing membership and salaries. If in practice any attempt were made to allocate costs back to specific individuals they would not necessarily be of regular application or smoothly progressive.

4.7 When the layman hears that a figure of $(x+y)\%$ of payroll is being allocated to the pension fund to provide deferred pay he may assume—incorrectly of course—that this precise percentage is applicable to each individual specifically rather than to the fund globally—as is the case with some members receiving more and some less. If Mr *A*. aged 45 joins a company his pension will probably cost the company more than the average $(x+y)\%$ of his salary, but this piece of information does not make headlines. If Mr *B*. aged 25 leaves the same company early with little or no transfer value he may feel harshly treated. This is the type of situation which can lead to a bad press. The fact that it is based on lack of understanding does not make any resultant headlines less damaging to the pensions industry.

4.8 Pensions are deferred pay but people need to understand that the same absolute pension may require a different incidence of contributions for different people of the same age and the same pension promise may even require different absolute contributions for people of different entry ages. (The Government appears to have appreciated this point in its latest consultative document (10), but it is still necessary to educate the public.)

4.9 It may be that pension scheme members would like the structure of their schemes amended to take account of 'early leavers', 'maintenance of real values', etc. It is quite natural, in the absence of attributable costs, that members will want the best of all possible worlds. It is mainly for this reason that whilst the present low level of understanding of the working of a pension scheme persists, rational changes cannot be made. Even where payments only form a notional deduction from salary it is important for members to understand that each benefit has its cost and how much that cost is. Pension contributions now form such a high proportion of payroll (an overall figure of 15% is not unusual) that cross-subsidies between members become very important. The concept of equal pay for equal work becomes ludicrous if the pension contributions (notionally) allocated on a member's behalf (and of course any other fringe benefits—but these fall beyond the scope of this paper) are not quantified.

5. MORE PROBLEMS

The cross-subsidy problem

5.1 Let us now look in more detail at the problem of cross-subsidies. It is usual for pension costs to be expressed as $x\%$ payroll of employer and $y\%$ of salary to employee. This method of expressing costs makes allowance for changing membership and salaries over the next 40 or so years. Such assumptions can be made only because large numbers of people are involved and therefore certain statistical techniques can be employed. When one is dealing with a specific individual the only assumption it is really valid to make is that he will not conform to any convenient average. If we want to look at the cost of a pension to a specific individual, we can only be certain what it is when the man dies and we have finished paying it. This technique can be called calculating the cost of the pension retrospectively. In the real world this technique serves no useful purpose, but in the theoretical world of the academic it is very useful and can be used to shed much light on what occurs in the practical world. We shall return to this technique later.

5.2 In the real world the simplest way to look at the cost of an individual's pension is to look at each year's cost in isolation. If a given year is considered in isolation it is obvious that for a given salary a younger employee would have a much smaller percentage of his salary going into the pension fund than an older member, because the younger member's contribution will be invested for a longer period before retirement. It can be argued that the fact that the contribution on behalf of a younger employee is smaller than the contribution on behalf of an older employee does not matter. The younger employee will gain on a swings and roundabouts basis as he passes through the company, but if there is to be employee mobility, it is not to be presumed that he will stay with the one company until retirement.

The ignorance problem

5.3 When costs for the whole company are calculated, the assumptions include the expected proportions of employees at each age. If company policy changed so that those assumptions were no longer valid, then the costing would need to be recalculated. If, for example, the company policy were to have a massive recruitment of older, more experienced employees than had been allowed for in the original assumptions, then the cost would increase. If the company policy were the reverse and it decided on a massive recruitment of apprentices at a younger age than had been allowed for in the original assumptions, the cost would decrease. Stated like this it sounds obvious, but when an employer takes on only one new recruit so that the costing does not need recalculating, because that new recruit is so insignificant in relation to the total, the effect will be masked.

5.4 At a recent pensions meeting a pensions professional was heard to remark that he did not like the idea of moving from the final salary structure for occupational pension schemes to an individually costed system, because the employer would no longer be able to afford to take elderly recruits into his scheme. This professional was not taken to task by any of his colleagues.

5.5 There are many arguments for retaining the final salary structure for pensions, but this is not one of them, although it is heard surprisingly frequently. Nothing in this life is free, at least certainly not in commercial life. The fact that the costing of a final salary pension scheme takes into account as one of its many assumptions just who the employer is likely to recruit, lulls him and many of his non-technical advisors into thinking that their recruiting policy has no effect on costs. If their recruiting policy matches the assumptions made, the costing will remain unchanged, but this should be as much of a positive management decision as a change in recruiting policy would be, since management had the ability to cause the pension contribution to be changed and merely made the decision to maintain the *status quo*.

5.6 In practice management rarely considers pension costs when framing recruitment or in fact any other policy, because it has probably never occurred to them that it would be sensible to do so.

Return to the cross-subsidies problem

5.7 Let us now take our investigation of fundamentals one stage further and consider the effect of salary increases on pension costs. The employee who enjoys wage rises proportionately higher than the rest of the workforce enjoys *more than* proportionately increased benefits—since in the year of the salary increase not only must a pension be purchased with respect to that year's salary, but also a back service pension in respect of which the salary increment must be provided.

5.8 This may be illustrated by an example. Most existing pension schemes promise *1/60*th of final salary for each year of service (13). Let us consider an employee on £6,000 p.a. who has been working for 10 years and receives a 10% salary increase. If we are looking at each year in isolation, then we can consider that a pension of *9/60*ths of £6,000 = £900 has already been purchased. In the year in which he receives the salary increase which brings his salary to £6,000, not only does a pension of *1/60*th of £6,600 = £110 have to be purchased by the employer, but also *9/10* × 600 = £90. So that the total pension purchased is *10/60* × 6,600 and not just *9/60* × 6,000 + *1/60* × 6,600. This is what is meant by the provision of back service pension in respect of the salary increment.

5.9 Is it 'right' to reward the promoted employee twice over? Of course, it could be argued that although a high-flyer can be rewarded by a salary increase alone, a pension scheme provides a far more tax-efficient vehicle by which to provide part of that reward. This argument is completely valid as far as it goes, but unfortunately it does not go anywhere far enough. A salary increase has a known cost; a cost which is known to both the employer and employee and valued by the employee to an appropriate extent. In general the cost of a pension increase associated with a salary increase is known to neither the employer or employee. From the employer's point of view, is he therefore getting value for money? He cannot tell. From the specific employee's point of view the extent to which he can appreciate a benefit is debatable when he is unaware of any cost. This leaves only the view of the membership in general to consider. At present they have no views on this particular topic, because they are largely uninformed.

5.10 To put figures to the general arguments about high-flyers being rewarded twice over requires more detailed calculations. David Wilkie has carried out these calculations and used them in his submission to the recent Government enquiry on portable pensions (21).

He made the following simplifications and assumptions, amongst others:

(i) There is a staff of eight individuals all starting at age 25 with a salary of £5,000.
(ii) There is a specific salary scale within the firm which happens to coincide with that given in *Formulae and Tables for Actuarial Examinations* (22), which is purely a specimen table.
(iii) The staff all have a rate of salary progression, the personal rate of which is lower or higher than the given scale by a specific percentage ranging from −2% to +5%.
(iv) There is in addition a general level of salary increase in excess of inflation by 1% p.a.
(v) The rate of inflation is 7%.
(vi) The company contribution to pension is 15% of payroll.

Individual	*Increase in salary relative to salary scale** (%)	*Final salary* (£)	*Level contribution from salary* (%)
1	−2	6,500	10
3	0	14,000	15
8	5	100,000	35

* This is in addition to the general level of salary increases in the company overall.

It can be seen from the table that the cost of the pension to the 'higher flyer' is nearly 35%, whilst for the 'plodder' is only 10%.

5.11 It is generally accepted that some people will receive more benefits from a scheme than they put in, some less, since this is the principle of insurance. But the principle of insurance in the context of pension schemes surely applied to the individual differences in longevity amongst homogeneous groups so that the member who lives a long time is paid for partly by contributions attributable to the member who does not live as long. In pension schemes we see not the averaging between similar individuals but cross-subsidies from lower to higher paid, from young to old, from men to women. If one considers the situation of a scheme in an industry the workforce of which is known to have a high occupational mortality risk not experienced by the office staff and the mortality experiences of these two groups are merged as may be quite likely, then one even has cross-subsidies from the poor to the rich. It is interesting that these cross-subsidies operate in a non-egalitarian manner, the reverse of which is usually considered to be the case when considering the pooling of risks.

5.12 The old insurance adage 'Freedom with Publicity' seems to have been forgotten in the context of occupational pension schemes. Where cross-subsidies are hidden, the benefactor receives no credit and the recipient is unaware that he is receiving any benefit.

5.13 If the cross-subsidies were to be more open and the members of a pension scheme realize that the $x\%$ contribution level they are told that the company is paying on their behalf actually means differing amounts on behalf of Mr A and on behalf of Mr B, a more rational decision could be taken regarding the situation claiming that the cross-subsidy is not an insurance element but merely a benefit to the well-promoted (i.e. valuable) stayer. It may be that employees will feel that cross-subsidies are the business of Government not of private occupational pension schemes, thus putting pressure on their employers for changes in design away from final-salary related that will be more radical than those so far envisaged by, for example, the Centre for Policy Studies (7).

6. THE PROBLEM OF THE FINAL SALARY DESIGN OF SCHEMES

6.1 With so much attention devoted to the concept of pensions as deferred pay, the function of pensions as a means of alleviating poverty in old age is often forgotten. Tacit acceptance of this function is evident by the strong lobby for the maintenance of real values of pensions. It was this desire for maintenance of real value that heralded the introduction of the final salary type design of pension schemes which, it was claimed, avoided the danger of newly awarded pensions lagging behind current wage levels. It introduced a new danger in its place—how to deal with the 'early leaver'—and did not really solve the problem of pensioners' incomes lagging behind that of the workforce. The principle of safeguarding the real value of pensions can be stated more generally as maintaining the relationship between the standard of living of pensioners and that of the economically active population so that pensioners shall have a share in prosperity (or lack of it, as the case may be). Final salary schemes in themselves achieve this only at the exact instant of retirement and methods have to be found to complement them. It is worth mentioning that many of the methods currently in use, such as the cost of living increases etc., can sometimes do more than this and make pensioners better off than the workforce, relatively speaking.

6.2 Employers realize that employee satisfaction will not be obtained if the pension scheme members feel that they are part of a bad plan. It has always been difficult to measure in any quantitative manner the staff relations return of the investment of any employer in a pension plan, but it is obviously very small if the members do not appreciate the scheme. The public is becoming more informed about pensions and the difference between the value of money now and the future, and this must inevitably lead to a situation where any plan that does not automatically adjust to inflation will not be classed as a good plan. A company can afford only a limited sum of money; it must decide how to allocate this sum most 'fairly'. Each member of staff is an individual with individual needs. What is considered essential by one individual can just as easily be considered superfluous by another, especially with their differing family responsibilities. This makes the provision of fringe benefits, including company pensions, a difficult task for any company. A compromise must be reached between the desirable and the possible (within the limits of cost that the enterprise can afford to bear).

6.3 I feel it is important that each individual should understand the extent to which he, as an individual, is responsible both for himself and for his dependants in the event of retirement, disability, death or sickness and the extent to which the employer and/or the Government (via the resources of working population) are responsible. It is very difficult for an individual under the final salary scheme design systems currently in use, to determine what level of additional savings he requires. As has been shown earlier, from an individual's point of view, the amount of money funded into a final salary scheme on his behalf is progressively increasing throughout service. He is therefore unable at a young age to make a rational decision as to whether to make separate provision for his retirement. If he decides to make separate provision on the assumption he will change jobs and then does not do so, he may have caused unnecessary hardship in his younger years to himself and to his family (if any) by his (in the event) unnecessary saving campaign. Conversely, if he does not make provision and does change jobs, he (and his family) may be caused unnecessary hardship after his retirement.

6.4 If a specified percentage of his income were funded using a defined benefit formula the problem would not arise. It cannot be argued that lower paid employees are less able to save in so far as the money that would have gone to pension contributions could be paid out as higher salaries. If it is argued that this money, if paid as salary increase, will be used for necessary living expenses, then the original salaries were not high enough and the pensioners, assuming that they receive pensions less than the salary that they are intended to replace, almost certainly would not be receiving enough income to provide for necessary living expenses.

6.5 In modern conditions it is not necessarily true that a pensioner requires less than the working person to maintain himself. Ultimately he no longer has travel expenses, but to offset that saving there are also increased costs such as heating and lighting during the hours that a pensioner is at home, whereas previously there were not. These pensions would therefore require supplementing by the state (even if indirectly in the form of rent rebates, etc.). We have not reached the point where the state pension provides sufficient, without supplementary benefit or private income to even endure old age, e.g. each year many old age pensioners attempting to survive solely on state benefit die from hypothermia. It is important, therefore, as has been stressed earlier in this paper, not to confuse the welfare and savings objectives of providing pensions. The welfare aspect should be dealt with by Government and can be of a flat rate variety; the savings aspect by the individual or company as appropriate (by the use of insurance principles if so desired). Additionally, it would be important to make provisions for Permanent Health Insurance to allow for benefits which cannot be self-financing (such as early retirement on ill-health grounds); relying as they do on true principles of insurance, viz. the pooling of risks.

7. SOLUTIONS

A basis for agreement

7.1 If general agreement can be reached that it is desirable for the state to cover, as of right, the basic welfare needs of the retired population—the 'endure' part of old age—and companies and/or individuals any luxuries on top—the 'enjoy' part of retirement—we will have found a firm starting point from which to commence solving many of the pension problems which are current today.

7.2 Alternatively, an equally firm starting point will have been reached if the general agreement is that individuals and/or companies must also cover the basic welfare needs of the retired. The initial necessity is to gain agreement to something, whatever that is. It is difficult to see how, in a caring society such as ours is meant to be, that agreement will not be reached that it is desirable for the state to look after the basic welfare needs of the elderly, especially as each of us will be old in our turn. If, despite this, the converse is decided upon one must have a very complex social security system to pick up the pieces of those who, through no fault of their own, have been unable to work and provide sufficient for their old age. This is just the sort of situation that those who believe in self-help usually wish to avoid.

7.3 The cost of extending state pensions to cover the basic welfare needs of individuals must be calculated, but it is likely to be lower than at first imagined. If the benefits are taxable under the normal PAYE system, any payments to those not in need will be recouped to the extent of basic rate tax at least. Payments to those in need, by far the larger grouping, will be offset to the extent that other supplementary benefits which were previously paid will no longer be required. It must not be forgotten to include in this offset the vast costs of administering the present social security system.

Evolution in design

7.4 In this paper it is not my intention—implied or otherwise—to suggest any redistribution of the contribution level merely to make members aware of those to whom the costs are attributable. Provided the members of a pension scheme realize that the $x\%$ contribution level they are told that the company is paying on their behalf comprises differing amounts on behalf of Mr A and on behalf of Mr B, that is sufficient to enable people to make rational decisions.

7.5 Pension scheme members may well decide it is worthwhile subsidizing the older worker as they too will become old in their turn, or the employer may decide the older worker is worth a higher salary by virtue of his experience and decide to pay this increase by means of a pension contribution. In such instances the final salary scheme structure as we know it would remain unchanged, but it would be based on rational decision. It is, however, much more likely that once greater knowledge enables members and employers alike to make more rational decisions, there will be a redistribution of contributions which would fall somewhere between the distribution necessary for (*a*) the current final salary structure, were members are told $x\%$ of salary is paid into the pension fund on their behalf, but it is an average $x\%$ comprising varying amounts for individuals depending on their circumstances; and (*b*) applying a level uniform contribution rate which would be very popular with younger members, but which would prove very unpopular with their older colleagues. Changes would be gradual because of the timescale required to change scheme rules and also because sudden change would leave those near to retirement with no pension at all—or hope of any—through no fault of their own.

7.6 The design and function of pension schemes are continuously evolving. What is fashionable today may not be so tomorrow, but fashions do not change abruptly overnight, they change gradually. As a result of education of the public, occupational pension schemes may give way to individual money purchase plans, or to some way of providing benefits according to need rather than linked to pre-retirement salary, but this is probably a long way off.

7.7 So far in this paper I have deliberately avoided using the term 'money purchase costing' for allocating the overall company pension contributions to individuals since the term 'money purchase' has acquired a bad image in the industry. In the past the benefits provided by money purchase schemes proved inadequate and this is one of the reasons why the design of occupational pension schemes was in general changed to a final salary basis. However, if as much money had been paid in contributions to money purchase schemes as they are to final salary schemes, the benefits may by now have been 'adequate'. It is also important to remember that a money purchase funding method does not have to imply an equal allocation of contribution levels as a percentage of salary between individual members. An age-related scale of contributions would not necessarily be inequitable as each member would be aware of his own entitlement. If he stayed he too would in turn receive the higher contributions, but more importantly, if he left he would be left in no doubt as to the benefits he was foregoing. The method of describing the means of funding is solely one of nomenclature.

7.8 To sum up, for a client company paying a level percentage of payroll to the pension fund and making advance funding provisions for salary increases, attributing costs of the money purchase scheme is neither elegant nor easy to explain, especially because of the allowance for future salary increases. Nonetheless, the money purchase method of explanation does have the overriding advantage of exhibiting the cross-subsidies in a scheme. Although all things are possible, if the money purchase method of explanation became popular, the design and funding of schemes would probably change to fit the new methods of explanation more easily.

7.9 In late 1984 this process has already commenced in a very tentative manner. One insurance company is marketing an occupational pension plan which combines the principles of money purchase and final salary benefits under the umbrella of one Group Scheme. It provides the early leaver with the Money Purchase guarantee and the member that stays with the advantage of Final Salary Benefits. It achieves this by splitting the pension contribution into two separately identifiable elements. One of these elements which the insurance company recommends should not exceed 75% of the total contribution level, is used to provide a money purchase benefit. When an employee retires the second element is administered in a 'deposit administration' way to 'top up' benefits to final salary level if the members' money purchase pension falls short of the amount which would be attributed on the final salary formula. The plan is a start, but does not go far enough. It is still not possible to see to whom and at whose expense the 'deposit administration' part of the final pension is allocated. Cross-subsidies in any form should be open.

7.10 Many more radical schemes have followed this innovation and it appears even more are on the drawing board.

The pension fund as a 'Friendly Society'

7.11 There is a tendency amongst pensions professionals to discuss pensions not in the human terms of their impact on the lives of ordinary people, but in the specialized jargon of pensioneering. I hope I have not fallen into that trap in this paper. I hope that, as a result of education of the public, occupational pension schemes may give way to some way of providing benefits according to need rather than linked to pre-retirement salary, but this is probably a long way off.

7.12 At the stage when a person becomes 'truly old', inactive, incontinent, etc. (a state almost entirely independent of age once the age of, say, 65 has been passed), what is needed is the provision of care not money. No matter how generous a pension scheme under current circumstances, it cannot afford to pay benefits to all, which will enable each retired member to employ a day nurse and a night nurse, with attendant facilities such as a cook, cleaner and bottle washer on an individual basis. Most present-day schemes would not even pay enough benefit for a member to enter a charitable old age home, let alone one run by private enterprise.

7.13 I hope that schemes of the future will see their function as the provision of care rather than of money, i.e. they will consider themselves insurers of old age in much the same way that companies currently marketing health insurance consider themselves indemnity insurers, meeting bills and payments when incurred. What might in practice happen is that the pension funds, instead of investing in traditional investments, such as shares, may decide to build sheltered housing, old age homes and hospitals, thereby investing directly in the economy and providing jobs for now, as well as ensuring the welfare of their pensioners when the time comes. There are 200,000 cases of senile dementia in Britain today (23) and it is estimated that these will rise to double that number by the turn of the century. I feel that unless the pension schemes do take some lead in the provision of facilities they may find that their pensioners will be a dissatisfied band chasing too few facilities and pushing the price of those few facilities out of the reach of many. Only time will tell if pension schemes will invest in care facilities on a commercial basis.

7.14 I cannot stress enough that for rational decisions to be made about whether to introduce changes to the structure of occupational pension schemes, whether changes of the type described above or other unthought of ways, the lay public need to understand how benefits are to be paid for and by whom. There is much educational work still to be done by actuaries; there may even be a need for educational work *among* actuaries.

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