THE EVOLUTION OF UK PENSION FUNDS:

some observations and less familiar aspects

Read by Ken Ayers,

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Chairman, Fellow Historians,

Contrary to the sentiments I expressed to the Honorary Secretary when he told me that I could no longer delay meeting my obligation as a member of this Association, I am delighted to have this opportunity to read a paper that I have long wanted to write.

My professional career has spanned a period of massive development in pensions practice, but it has seemed to me during recent years that few people remember (conveniently or otherwise) the details of the history, or indeed how recently it has all happened. The Honorary Secretary's insistence has enabled me to remind at least this audience, and perhaps a wider field, how recent the developments have been and how fast the pace of development.

I am going to touch on four main aspects; life expectancy, pension benefits, investment and risk.

In 1853, a little before my time, thank God, the average expectation of life at birth was 40 years for a male and 42 for a female. By 1914 it had become 52 years for a male and 54 years for a female and it was only in 1951 (when I was 13) that it reached 66 for a male and 71 for a female. It is not surprising that there was little demand for a pension at 65, and that the cost of a pension was quite small. By 1981 the expected lifetime of a male at birth was 71, and 77 for a female. These expectations have now reached 77 and 81 respectively. A few will die before 65, and this effect is included in this data, but for those who survive to age 65 the average age at death is even higher than the numbers I have just quoted. Much of this dramatic improvement was as a result of improved infant mortality, but it was still true that for the majority of people, "work 'till you drop" was the expected norm, right up until less than a century or so ago. How things have changed.

Pensions were first provided by a few enlightened employers for those who were lucky enough to reach retirement age. The cost was small, because many did not, but even for the lucky ones the expectation of remaining life of a male from age 65 onwards was a modest 11 years as recently as 1951. Today it is more like 17 years.

So how did pension provision start?

The first organised pension scheme was for Royal Navy Officers in the 1670's. In the 1860's the Victorian Railway Companies introduced pension arrangements. Reuters in 1893 and W H Smith in 1894 were other early employers to introduce schemes.

Early providers of pensions simply kept former workers on the payroll and paid the modest cost on a year by year basis. I would guess that the tax system then allowed this to be done from pre-tax income and with little formality. In time, and as longevity improved, this became more of a burden and it was felt more appropriate to fund the cost of a pension during the working lifetime of the employee.

Early pensions were often based on a defined percentage of each year's remuneration without any adjustment for inflation, and were frequently provided by means of a deferred annuity. This was not unsatisfactory in providing a core benefit at a time of low inflation and lifetime careers with one employer. Indeed it was normal at that time for all pension benefits provided by an employer to be lost when an

employee left his service before retirement. But as inflation became a serious influence, the level of pension provided compared less well with immediate pre- retirement income. In addition, the demise of the "one employer throughout career" concept created a problem with transferability of benefits. For a variety of complex reasons, transfer benefits for early leavers (where they existed at all) were seldom sufficient to provide equivalent final salary related benefits in the new employer's scheme based on years of service in the old employer's scheme, particularly after inflation. As job mobility increased, it generated a need for employers to provide more attractive packages in order to tempt staff into their employment.

Thus final salary pensions were born, and prospered – that is until employees became still more mobile.

But not all employers had pension schemes, and what about those who were self-employed? The more affluent were able to provide their own pensions largely by means of endowment assurance policies maturing at the expected retirement age. This had the advantage of also providing benefits for dependents in the event of early death, and the expected pension was secured by the purchase of an annuity when the policy matured. A guaranteed annuity option could be written into the policy, which was usually at a considerably lower level than the then current annuity rates. As it happened, longevity improved faster than the actuarial profession expected, with a traumatic effect on some life assurers, which was, in part, responsible for the eventual problems at Equitable Life. I recall that in 1955, the company by whom I was employed offered a guaranteed annual annuity option of nine pounds, eight shillings and eight pence per £100 of eventual maturity value on all endowment policies maturing at age 65. This was payable, I think, monthly in advance and guaranteed to continue for a minimum of five years from age 65, and for life thereafter. For many years this remained significantly lower than the then current annuity rate due (in part, to the influence of higher yields on long dated bonds outweighing the effects of improving longevity) so that the guaranteed annuity option was rarely exercised. This all changed as long bond yields fell. The equivalent annuity rate is now around £7.2!

Thirty years or so ago there was only modest tax relief for those making contributions to their own pension provision. This was only remedied in the Finance Act of 1970 which for the first time allowed all those who were not members of formal pension schemes to pay modest contributions into their own pension arrangement from pre-tax income. The tax-allowable level of contributions was subsequently increased several times.

But I am moving ahead too fast.

I have mentioned previously that early formal pension arrangements frequently used deferred annuities to identify a level of pension. However, some employers preferred to invest in bonds in an attempt to achieve the same outcome in a less expensive way, but not without adding some risk, since the outcome was dependent on the performance of the bonds, and eventual the annuity rates. It was only in 1953 that the legendary George Ross Goobey, who was then managing the investments of the Imperial Tobacco Group pension fund, started investing part, and later almost all, of the assets of the pension fund in equities. Initially there was considerable reluctance among other funds to follow the lead, but when the policy proved startlingly successful, other funds copied, with the result that 45 years later most held the vast majority of their assets in equities (with a proportion in property which had grown and contracted again) and a relatively small, if any holding of bonds. Ross Goobey's motivation was to achieve an excess yield over the rate of interest assumed by the Actuary, thus reducing the cost for the employer, although later the benefit of equities as an asset that could outpace inflation became very evident. Subsequently, the net spread wider, involving non-sterling denominated equities (once Exchange Control restrictions had been removed) emerging markets and more recently private equity, derivatives and increasingly complicated swaps.

The pensions industry has always been understandably reluctant to espouse innovations in the early stages but has waited either until new ideas had proved their worth or until a significant number of peer funds had followed the course. I believe that there are a number of reasons for this shyness. These include being victims of their own success in conventional investment strategies, since for a significant period of time investment in equities (or equity type assets) was so successful that employers were able, or in some cases were forced, to partially or totally suspend contributions.

Why forced?

In order to combat what some governments regarded as a form of tax avoidance, limits were placed on the level of surplus pension funds could accumulate. The effect of substantial rises in equity markets was to test these limits in many cases, which forced companies to follow one or more of a number of courses in order to avoid penalties. In simple terms, the options they had were to increase benefits, return the surplus to the employer or reduce or suspend contributions. The first of these would have committed the employer to increased future contributions (since the increased benefits would have to be sustained and paid for) and the second would have attracted significant taxation, which left only the option of reducing or suspending contributions whether the employer wanted to do this or not. When the dramatic market rise was followed by a substantial fall, many funds who had been effectively forced into taking contribution holidays found themselves with deficits from which they could not recover.

Having diverted for a few minutes to ride another of my hobby horses, let me return to my theory about the reluctance of funds to espouse innovations.

Other influences include;

1) Understandable caution in an area in which neither the employer nor the trustees may have experience,

2) The trustee system itself, which has served the industry well, partly because it ensures that amounts set aside for pensions can never be used for any other purpose, but which encourages conservatism with large sums of money for which the trustees are responsible but do not own

Another influence was a general concern about being blamed by beneficiaries for losses resulting from actions which, with hindsight, look foolhardy, particularly if other funds have not followed the route already in significant numbers.

Earlier, I suggested that the mass move into equities was motivated by out and out performance considerations or perhaps to some extent by a desire to compensate for the consequences of inflation and increasing salaries. Little or no attempt was made by trustees at that time to protect funds from adverse influences on their liabilities. This was to develop in the eighties in the United States, and in the nineties in the UK with the realisation that the biggest risk to which a pension fund could be exposed was the danger of its liabilities rising faster than its assets.

Thus the concept of asset/liability matching was born.

The idea was to identify the liabilities, both by size and likely timescale, and identify the influences on them, such as;

> 1) Changes in interest rates, or more specifically the changes in the rates of interest at which it is appropriate to discount future liabilities,
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> 2) Changes in rates of mortality,
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> 3) Changes in rates of inflation (both price inflation and salary inflation)

The next stage was to design an investment policy that minimised the risk of the assets being insufficient to meet these liabilities in a variety of circumstances.

In reverse order, the price inflation risk can be effectively hedged by investing in government issued index-linked bonds, but the demand is such (in relation to the very small supply) that they are very expensive, and significant investment in them would substantially increase the required contributions to the pension fund. Equity type investments carry more risk and more volatility but are regarded as an acceptable (and potentially cheaper) proxy in the long term. There are no instruments currently available in sufficient

volume to provide effective hedging against unanticipated improvements in mortality. These may develop in the future. Interest rates used for discounting liabilities in the future are normally bond yields of equivalent duration, and can be hedged by buying equivalent risk-free bonds.

The modelling of different scenarios produces a series of optimal portfolio distributions combined with corresponding levels of risk associated with each. The purpose is to assist both the trustees of the pension scheme and the employer in deciding on an appropriate asset allocation, and also reconciling the conflicts in their respective goals. Considerable development is being achieved in designing new synthetic products to match the needs of pension funds, and I would anticipate significant developments in this area in the foreseeable future. Although there may be the traditional reluctance to accept these innovations in the near future, I would anticipate that the run-in time may be shorter than it has been for new instruments in the past.

Finally, I turn to the subject of risk.

Those of you who have been listening carefully may have noticed that one of the principal elements in the development of pensions has been to reduce the element of risk where possible. Early pioneer employers accepted, what is in present day terms, a very low level of risk, because few of their employees were expected to reach retirement, and the average period of retirement was short.

But, as businesses grew and longevity improved, not only did the cost of pension provision rise, but the risks became greater. The purchase of a deferred annuity of a defined proportion of a year's salary removed the investment risk from the employer and transferred it to an insurance company. The mortality risk was also transferred, sometimes not only before (if all of the benefits were lost in the event of death before retirement) but after retirement as well. But the level of pension was fixed in money terms when it was purchased, so it was the employee who took the whole of the inflation risk both before and after retirement. Similar influences applied to those who were making their own pension arrangements. They also had to bear the risk of the insurance company failing to meet expectations – see Equitable Life.

The advent of final salary related schemes, and the demise of the deferred annuities, removed from the employee the risk of inflation before retirement, and passed it to the employer, who took the investment risk (even if he gave investment discretion to a fund manager). Only after retirement did inflation risk remain with the employee – and this was soon reduced further as employers accepted responsibility for either wholly or partially escalating pensions by the rate of inflation.

What happened next was a sea change, the implications of which are only minimally understood and the dramatic consequences for pensions after retirement will only be fully realised in many years time. Employees were seduced by some very sharp rises in equity markets which produced large potential surpluses for pension funds, and they were dissatisfied with transfer values to other schemes, which they felt were unreasonably mean. Politics became involved and limited escalation for inflation before and after retirement became a requirement by legislation. Costs to employers escalated rapidly due to this effect combining with improving longevity, lower interest rates (both short and long term) and more onerous and expensive administration and legislation costs. The risks for employers became too much to accept, particularly at a time when employees believed they could do better for themselves.

Final salary schemes were being closed and replaced by defined contribution schemes, often with an employer contribution which was completely inadequate (in any likely circumstances) to provide benefits at a level to which pensioners aspire, or even need for basic living conditions.

The full circle has been turned – many employers have reduced their risk related to mortality (both before and after retirement) and to investment policy, to virtually nothing. But the risk has not disappeared. It has merely been returned to employees again, and they have little or no understanding of the consequences. But there may not be a future for defined benefit pension schemes at all! The increasing complexity and attendant cost of such schemes may render them redundant, and the future may be all about defined contribution schemes. Fortunately, I am addressing historians, and whilst history plays an important part in framing the future, we do not have to forecast it.

An important element in managing a pension fund is to identify the risks being taken and to identify who is taking them. It is my belief that this is not well understood. Knowledge and understanding of the past can be of considerable assistance if well formed pension arrangements (mutually acceptable to both employers and employees) are to come about.

Before sitting down, I would like to record my gratitude to my former colleague Don Ezra, an eminent investment actuary, and Alan Herbert, who after a career in pensions is now Chairman of The Pensions Archive Trust. Both kindly agreed to look over my draft, and both made a number of constructive suggestions. Their help was invaluable, but all of the opinions expressed are my own.