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SMALL SELF-ADMINISTERED SCHEMES IN PRACTICE

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1. INTRODUCTION

Everyman, I will go with thee and be thy guide. (Anon.)

IN the last four years, the number of small self-administered pension schemes has increased from a few dozen to a figure that, if it has not already done so, must shortly pass the 10,000 mark and few major Life Offices, Consulting Actuaries or Pensions Consultants are now without such a weapon in their armoury.

Considerable practical experience in the administration of these arrangements has been gained, often somewhat traumatically, over this period by actuaries and other practitioners and, with many schemes having recently had, or just coming up to, their first triennial actuarial report, it seemed a sensible time to consolidate this experience and to highlight some of the more contentious areas for discussion.

Certain statements in the paper are based on my understanding of current Inland Revenue practice which is not necessarily consistent either with time or between different examiners.

Finally, although the subject matter of the paper applies equally to fully self-administered schemes and to Life Office 'hybrid' schemes, I wish to apologize for any unintentional bias towards the latter that may have crept in. Better the devil you know, I suppose!

2. THE PRODUCT AND THE MARKET

A salesman is got to dream, boy. (Miller: *Death of a Salesman*)

2.1. *Brief History*

Small Self-Administered Schemes had their genesis in the Finance Act 1973 which permitted controlling directors to join an exempt approved pension scheme for the first time. Whilst this meant that directors could now join a large staff pension scheme or contribute to a small, fully insured arrangement, the Inland Revenue Superannuation Funds Office (the SFO), exercising their discretion under the Finance Act 1970, refused to grant approval to self-administered schemes with directors as the only members with other than a purely nominal interest.

This refusal was based on the desire to avoid several possible abuses that schemes where the directors were members, employer and trustee were open to. For example:

(i) Contributions being made in excess of those necessary to provide maximum permissible benefits in order to obtain tax relief thereon.
(ii) Direction of investment strategy to the advantage of the directors themselves or of the company at the expense of security or return.
(iii) Tax avoidance, for example on the sale of company shares at less than market value to the scheme.
(iv) Winding-up of the scheme and distribution of the monies to the directors or the company.

Whilst this arrangement satisfied the life offices, many company directors were unwilling to invest a sizeable premium each year in an insured scheme for fear that the money might be needed at some time to protect the future of the company. Equally they were unhappy to participate in the company scheme as little more flexibility in investment strategy was available and it was impossible to isolate contribution on their behalf from those for the other members.

After many requests from interested parties, mainly pensions brokers and consulting actuaries, and the approval of a handful of schemes, the SFO issued a note in 1976 indicating the basis on which it would be prepared to approve small self-administered schemes for directors. After further experience of such schemes, the SFO (jointly with the Occupational Pensions Board, 'the OPB') issued a Memorandum (No. 58) in 1979 giving greater details of their requirements and, incidentally, giving widespread publicity to the possibility of such schemes.

2.2. *Requirements for Approval*

In addition to satisfying the SFO's requirements for discretionary approval under the Finance Act 1970, including those relating to 20% directors should the members be such, small schemes are subject to the additional constraints laid down in Memorandum No. 58 and by later rulings from the SFO. The major requirements being:

(i) The appointment of a 'Pensioneer Trustee', being an individual or corporate body experienced in pensions business and with a continuing involvement with the SFO in other matters, whose duty in addition to those of any trustee, is to provide an undertaking not to consent to the winding-up of the scheme other than in accordance with the scheme rules.
(ii) Certain restrictions on investments are imposed to avert possible tax avoidance and to ensure that the assets are suitable to meet the liabilities of the scheme. The more important relate to loans to members and beneficiaries, loans to the employer, company occupied property, assets

capable of being personally used by the members and the acquisition of assets from the employer.

(iii) Actuarial reports must be submitted at outset and then at least triennially, accompanied by a statement of how the contributions are to be or have been invested.

(iv) Pensions must be secured by the purchase of a non-commutable annuity from a Life Office immediately on retirement, unless the scheme provides a 5-year guarantee on payments with the outstanding payments being available as a lump sum on death within that period, when the scheme may make the payments for up to 5 years, thereafter buying the remaining annuity from a Life Office.

(v) Lump-sum benefits on the death in service of a member under the age of 75 must be distributable amongst the member's dependants and relatives at the trustees' discretion. Requirements (iv) and (v) reduce the likelihood that all the members and beneficiaries under a scheme will agree to the termination of the trust and the distribution of the assets amongst themselves, as proven in *Saunders* v. *Vautier*, the Pensioneer Trustee being powerless to prevent this.

(vi) All benefits payable on a member's death in service in excess of his interest in the assets of the scheme must be insured with a Life Office.

(vii) No company may establish more than one small self-administered scheme, even though they may be intended for disjoint groups of directors.

2.3. *The Market and the Product*

A recent survey(1) revealed over 4,500 small schemes in existence at the beginning of 1983 and admitted to being by no means comprehensive. The number of schemes has increased, from a few hundreds prior to the publication of Memorandum No. 58, by some 2,000 in each year since then. With countless small companies now returning to profit after the recession or being formed to exploit new technologies, the depths of the market seem as yet unplumbed.

The directors of most small companies declaring a taxable profit, and of many not yet doing so, could benefit, both from the standpoint of retirement security and from that of reduced company and personal taxation, by setting up and contributing to a small scheme. This applies equally whether they are running a corner newsagents or an aerospace components factory.

Many directors remain unaware of the advantages of small schemes at present and the best way to make this knowledge available is often not directly to the people concerned, who often are far too involved with running their business to bother about pensions and taxation, but through their financial advisers, particularly accountants, whose knowledge of their clients' tax positions enables them to perceive the need for a small scheme most easily.

There are two distinct types of small scheme available. Those offered mainly by the 'private' practitioners—consulting actuaries, banks, pensions brokers, etc—and those offered by insurance companies. The former are distinguished by 100% self-investment and by, generally higher, charges levied on either a 'time spent' basis or related to contributions or fund size whilst the latter 'hybrid' schemes generally require a certain proportion of contributions to be invested in an insurance policy (with profits pure endowment or unit linked) and as a result can offer lower explicit charges. The minimum insured proportion is often either 50% or some fixed amount, say £5,000 per member.

The services provided vary from scheme to scheme but the majority of 'packages' available cover actuarial, Pensioneer Trustee and administration services. Occasionally legal, accountancy, investment advice or banking services can also be provided.

The great majority of schemes are on a money purchase basis, each member being entitled to a proportion of the fund dictated by the size and incidence of contributions on his behalf, although it is perfectly possible for the scheme to fund for a fixed percentage of final salary instead and even, in that case, to contract out of the earnings-related part of the State Scheme, although it would increase administrative costs and restrict investment possibilities to do so. There is likely to be provision to provide members with up to the maximum benefits permitted by the Inland Revenue on retirement or death for money-purchase arrangements in any case.

2.4. *Selling a Scheme*

Consider the fairly typical case of a company that has been in existence for several years and is for the first time earning sufficient profit for the directors to think about putting aside more than just a trivial amount for pension purposes and for the company accountant to think about possible ways of reducing taxable profit without increasing the directors' personal taxation.

One or more presentations will be made containing full details of the nature of the small scheme proposed and of its advantages from pensions and taxation angles, of the services to be provided and the likely charges imposed, of minimum insured requirements, and an illustration of the maximum level of contributions likely to be permitted to the scheme. This illustration will be on a similar basis to that which would be used for the initial actuarial report but may be based on incomplete data, for example about existing pension arrangements or the ages of the proposed members' spouses, and this will be subject to later emendation. There will also be comments upon the suitability of any proposed investment strategy.

3. SETTING UP THE SCHEME

I have done the deed. (Shakespeare: *Macbeth*, II. ii)

3.1. *Procedure to Gain Approval*

Once it has been decided in principle to set up a small scheme the following, fairly lengthy procedures must be followed.

(i) The company's memorandum and articles of association should be checked to ensure that the company is empowered to provide relevant benefits for directors. They will almost certainly include the power to provide benefits for employees but it is by no means certain in law that directors and employees are one and the same and an appropriate amendment to the documents may occasionally be deemed prudent.

(ii) A meeting of the company's board of directors should be held and minuted. Resolutions should be passed setting up the scheme, appointing the trustees and inviting the proposed members to join.

(iii) A Pensioneer Trustee must be appointed, as must an actuary to prepare the initial report. It would also be wise at this stage to appoint an independent auditor so that he may advise on the financial records he would like maintained to facilitate the preparation of the scheme's annual accounts.

(iv) The trustees should open a bank current account, specifying that all withdrawals should be sanctioned by the Pensioneer Trustee together with one or more of the other trustees. It is also sensible to open a deposit account so that excess monies may be transferred from the current account and earn interest until invested elsewhere.

(v) A solicitor must be approached to prepare a Trust Deed and Rules for the scheme. Most organizations offering small scheme services will be able to provide a draft of these documents which have been approved in the general case by the SFO and the OPB and which, possibly with minor amendments, will be suitable for this scheme, too. Where such services are not being purchased, the trustees would be wise to approach a solicitor well versed in pensions matters to avoid protracted negotiation with the two interested bodies over the content of the documents, possible liability to the trustees in excess of that intended and unnecessary restriction on the trustees' powers (e.g., to borrow, to invest as they wish or to provide certain benefits). The Deed and Rules should be signed and sealed by the employer and countersigned by the trustees.

As an alternative to this course of action, a much shorter 'interim' deed could be completed, outlining the basis on which the scheme is to be constituted and undertaking to execute the 'definitive' deed within a certain time (e.g., 2 years). Whilst full approval of the scheme will not be granted until the definitive deed is submitted, the SFO will usually instruct the local tax inspector to allow the scheme certain provisional tax advantages (see § 5.2).

I do not intend to explore in detail the wording of the Trust Deed. It is sufficient to say that it should usually provide for the maximum permitted benefits under the 1970 Finance Act to be provided, take account of relevant preservation regulations and trust law and also allow for the additional constraints of Memorandum No. 58.

(vi) The proposed members must be notified in writing of the employer's intention to establish the scheme and of their invitation to join. A synopsis of the benefits to be provided forms a useful appendage to this letter.

(vii) The initial level of contribution to the scheme must be decided as must, for a money purchase arrangement, the way in which the contribution relates to the individual members. Naturally, any contributions by the members themselves accrue to their eventual benefit. The proposed contribution should not, of course, exceed that recommended in the initial quotation (i.e., that likely to be recommended in the actuarial report).

(viii) The initial investment strategy should be selected, put in writing and when the contributions are made, promptly exercised.

(ix) The level of death in service benefits should be decided upon and the necessary insurance policies arranged, ensuring that cover is not excessive relative to the maximum permissible benefits.

Members may also deposit an 'expression of wish' in writing with the trustees, indicating in which direction they would prefer the trustees to exercise their discretion over the distribution of lump-sum death benefits. Naturally, these wishes are not binding on the trustees.

Following the initial flurry, it is time for the Definitive Deed to be completed (if the 'interim' path has been followed) and for the initial actuarial report. The submission of these two items together with:

(i) The undertakings of the 'administrator' (usually the trustees) regarding transfer payments, maximum benefits, etc.

(ii) Information regarding the directors' shareholdings, other pension arrangements, etc.

(iii) A copy of the announcement letter to members.

(iv) The proposed investment strategy.

if not already submitted, will enable the SFO to consider the scheme for exempt approval.

At present, there is a considerable delay between the submission of the above documentation and the granting of approval, due to the volume of work facing the SFO. This delay may pose certain problems regarding the tax position of the scheme, although the 'provisional' approval usually allowed restricts these problems to a minimum.

3.2. *The Initial Actuarial Report*

The main purpose of the actuarial report at the outset of a scheme is to confirm that the proposed level of contribution by the employer and the members to the scheme is not likely to produce benefits for the members on death or normal retirement in excess of those permitted by the Inland Revenue.

The report may often take the equivalent and slightly more flexible approach of stating the level of contributions that would enable the trustees to provide the members with the maximum benefits on retirement, assuming that the rules would permit this level of benefit to be paid.

In what follows, I have assumed that this latter approach is adopted. The report will also serve to consolidate information about other aspects of the scheme and a typical example might contain the items listed below.

(i) Introduction and purpose of report.
(ii) Constitution of the scheme and reference to the benefits possible under the rules and to the members' (money purchase) entitlements.
(iii) Details of the members and their dependants.
(iv) Members' salaries.
(v) A summary of the members' entitlements to benefits under other pension arrangements which must be taken into account in determining the maximum permissible benefits from this scheme.
(vi) An indication of the degree to which the actuary is satisfied with the accuracy of the data provided.
(vii) A simple explanation of the basis chosen to calculate the maximum contribution level, particularly the main financial elements on which many trustees may be expected to hold informed views.
(viii) Specification of the maximum contribution level, indicating whether any special contributions may be made in respect of service with the employer prior to the commencement date ('past service').
(ix) An indication of the maximum sums assured under term-assurance policies for death-in-service benefits.
(x) A brief assessment of how the contributions recommended would be affected if future experience differed from the basis assumed.
(xi) General recommendations to the trustees, for example on the importance of a sound investment policy.

Of course, it is not necessarily intended that the scheme will eventually provide the maximum permissible benefits and the actual contributions made to the scheme will, more often than not, be considerably below those stated in the report, their level dictated to a large extent by the company's trading performance and the directors' preferences between 'money now' or 'money later'.

However, the payment of a large 'annual' contribution in the first year of a scheme's existence, followed by much smaller 'annual' contributions thereafter may cause the SFO to regard part of that first contribution as a special contribution with the resulting less favourable tax treatment (see § 5.1).

3.3. *The Basis Used—Financial Elements*

The philosophy underlying the choice of basis can usefully be contrasted to that underlying the valuation basis of a final salary scheme. In the latter, the actuary must steer a course between the desire of the employer to provide the benefits for the lowest possible cost and the need to ensure that they are funded to a minimum standard of security. For most small schemes, on the other hand, the employer's wish is to make contributions (and so reduce taxable profits) at as high a level as possible whereas the authorities require that contributions remain at a reasonable level.

To some extent, the fact that the actuary is required to find a middle road in both circumstances should result in similar considerations applying to the choice of bases.

The financial items that must be chosen are the rate of interest, the rate of increase of members' salaries and the rate of increase of pensions in payment. In fact, having selected the absolute size of one of these elements, the problem reduces to selecting the most suitable relative sizes of the other two (i.e., to determining the long-term real rates of return over salary and over price inflation). It is assumed that the scheme rules allow pensions in payment to be increased in line with the increases in the Retail Prices Index (RPI).

The actual and real returns earned on the investments of small schemes will vary greatly from year to year, particularly where a narrow investment strategy has been followed. The returns will also differ from scheme to scheme because of the different directions of investment. The earnings of the members may also vary (with company profits) much more widely than is normal in a large scheme. Because it is impossible to accurately predict the course of these factors, it is usual to ignore the particular circumstances of the scheme and to apply one basis to all new schemes, basing the choice of elements on general considerations only.

It must also be borne in mind that a further actuarial report, *including a valuation of assets*, may have to be prepared on a similar basis in 3 years time.

The assumption is usually made that, tax considerations apart, it will continue to be financially attractive to save money. This implies that the long-term rate of return on the fund must exceed the rate of increase in the RPI.

It is also usual to assume that the economy will exhibit long-term real growth and thus that wages will increase faster than prices.

The SFO "will examine the assumptions that have been made" and it is clear that an actuarial basis that deviates too far from their norm will not be acceptable. It might be supposed that their idea of a suitable basis would not be too far away from that given for the determination of the maximum contributions permissible to insured schemes with 'earmarked' policies (Inland Revenue Practice Notes Section 18.10 *et al* and Memorandum No. 75). This is:

(i) An interest rate of at least 9%.
(ii) A salary increase assumption of not more than 8·5%.
(iii) A real interest rate in retirement of at least 3%.

In an obvious notation, I will refer to this basis as a "9/8·5–9/6" basis.

In August and September of 1983, I carried out a survey amongst a number of actuaries who have experience of these schemes and I am very grateful to all those who responded. In all, actuaries responsible for over 1,750 schemes provided details of their small scheme bases and the results are tabulated in Appendix 1. It can, indeed, be seen that a favourite is 9/8·5–10·5/8·5, which satisfies the two 'philosophical' requirements above and is close to the "earmarked" basis, although I am a little uncertain about the logic underlying the assumptions that the investment return earned on the fund will be 9% (for say 20 years) and yet, at the end of that period, life offices will be writing annuities on a 10·5% interest basis! The difference between a 9/8·5–10·5/8·5 and 9/8·5–9/7 basis is very small indeed and, to me, the latter would appear a more consistent approach to take.

3.4. *The Basis Used—Demographic Elements*

Because of the small number of members of these schemes (often one and rarely greater than three) it is inappropriate to make allowance for mortality in service when assessing the level of contributions for retirement benefits. For in the majority of cases where the members survived to retirement age the scheme would be underfunded and in those cases where one or more deaths occurred at a time before the members' interests in the scheme assets exceeded the cost of death in service benefits, additional term assurance would always have been available if required to meet the shortfall.

Mortality need only be taken into account after retirement, to assess the cost of purchasing an annuity from a life office. The most suitable table to use would be a projection of current pensioners mortality to the date of normal retirement. In practice PA(90), or a (55) suitably downrated, is likely to be used.

As scheme members are, in general, directors of companies, there is no direct equivalent to the promotional increases in salary used in large scheme valuations and it is normal to assume that the financial element of salary increase includes an element of age/experience increase.

The SFO specify that a dependant's pension (on death in service and in retirement) can only be funded for where such a dependant actually exists. In other words, a widow's pension may not be funded for if the member is a bachelor. There is thus no need for assumed age differences or proportions married.

Again, because of the small membership, it is unlikely that any allowance will be made for withdrawals or early retirements in the funding calculations.

3.5. *Calculating the Contributions*

Because of the small membership of these schemes, contributions are usually calculated separately for each individual, taking account of their age, sex, salary and normal retirement age and the age and sex of any current dependant.

If the intention was to provide the 'target' benefits at retirement with the real cost spread as evenly as possible throughout the membership of the member concerned, it would be natural to calculate the annual contribution as a fixed percentage of the member's salary each year.

For example, where the target benefits are the maximum permissible and the member has at least 10 years' past service, the value of the target benefits is

$$\tfrac{2}{3}\, salary \times v^{n}_{i-j} \times \left(\bar{a}^{\,i-k}_{\overline{r:5|}} + \tfrac{2}{3}\left(a^{i-k}_{r-d} - a^{y-k}_{r:r-d}\right)\right)$$

and the value of future annual contributions of 1% of salary is

$$\tfrac{1}{100}\, salary \times \ddot{a}^{\,i-j}_{\overline{n|}}$$

where x = member's age, basis $= i/j - i/k$
r = normal retirement age, $d = x - y$
y = dependant's age, $n = r - x$

When $r = 65$, $y = x - 3$ and a simple 9/8–9/7 basis is used, the following 'new entrant' contributions result

x	*Contribution as a % of salary*
25	23
35	32
45	51
55	106

It is, however, usually the employer's desire to make contributions initially at a higher level than would be possible under this basis and, to accelerate the pace of funding, the actuary will calculate *level* annual contributions (LAC) using the alternative denominator

$$\ddot{a}^{\,i}_{\overline{n|}}$$

This leads to the following, initially higher, contributions

x	*Contribution as a % of initial salary*
25	66
35	76
45	93
55	146

For a younger retirement age, the initial contribution rate would be higher still.

Where, and only where, the member has past service with the employer, it is possible for the pace of funding to be further increased by means of 'special' contributions in the early years. These special contributions ensure that the benefit entitlements from that past service are fully funded as quickly as possible in case, for example, the member should retire earlier than normal.

Where it is intended to make special contributions in addition to the level annual contribution the actuary must justify their size, in relation to past service, in the initial report. The maximum early retirement pension payable is given, in general, by

$$\frac{N}{N+n} \times \textit{pension fraction at NRD} \times \textit{salary}$$

where N years have already been served and n years future service remain to NRD. It is thus natural to apportion the value of the target benefits in the ratio $N{:}n$, the past service portion being paid as a special contribution at outset or spread over several years to maximize tax relief, the future service contribution resulting in a smaller level annual contribution.

For example, using the basis above with $x=45$ and taking N as 20, the contribution pattern could either be a level 93% of initial salary or a special contribution of 465% together with a level 47% of initial salary.

Appendix 2 contains illustrations of the growth of a small scheme under the three contribution methods described above.

3.6. *Death in Service Benefits*

Generally, the term assurance sum assured (TASA) sufficient to provide the maximum permissible death in service benefits in the first year of a non-contributory scheme can be determined from the formula

$$\textit{salary} \times \left(4+\frac{4}{9}\,\bar{a}_y^{i-k}\right)-LAC$$

For example, on the 9/8–9/7 basis, with $y=x-3$

x	*Initial TASA as a multiple of salary*
25	18
35	17
45	15
55	12

However, the actual sum assured required from year to year to provide maximum benefits will vary as salary, the dependant's age and the scheme assets all increase. For example, for a male aged 25 at outset, the maximum sum assured varies as follows

Age	*TASA as a multiple of initial salary*
25	18
35	27
45	36
55	39
64	11

first rising, and then falling as NRD approaches. The actuary should ensure that the initial TASA is not excessive and that the amount of cover is revised periodically in the light of the changing circumstances.

Contributions in addition to those recommended in § 3.5 may then be made to the scheme, to enable the scheme to pay an equal amount as a premium to an insurance policy providing cover up to the sum assured determined above.

3.7. *Retained Benefits*

Where it is intended to provide members with a pension greater than 1/60th of final pensionable salary, and even in certain cases where it is not, it is necessary for the administrator to ensure that members' aggregate benefits from all pension arrangements do not exceed the permitted maxima. The only 'retained benefits' excluded are those of trivial amount, those resulting from *concurrent* self-employment and state-scheme benefits. All other arrangements, including pensions in payment and lump-sum retirement benefits already paid must be taken into account.

It is, therefore, necessary for the target benefits to be reduced to ensure that the maxima are not breached, making reasonable estimates of the benefits expected from other arrangements when these are not yet known, as otherwise the funding level, based on unadjusted target benefits, might prove ultimately to be excessive.

The trustees must provide the actuary with sufficient details of all pensions arrangements to which the members belong to enable him to reduce the target benefits appropriately. The SFO provide guidelines on how they wish the benefits arising from existing pensions arrangements to be determined in P.N. 18, as amended by Memorandum No. 78, and provide further details about with-profit arrangements in leaflet SF134.

I generally interpret these guidelines as follows to arrive at a cash value of benefits at retirement age.

(i) Where the benefits are fixed in monetary terms—value the benefits on the target benefit valuation basis (e.g., 9%).
(ii) Where the benefits are related to final salary—estimate pension at retirement age assuming the same salary roll up rate as for the small scheme (e.g., 8%) and then proceed as (i).

(iii) Where the benefits are on a with-profits or unit-linked basis—
  (a) where past contributions are known, accumulate past and proposed future (where the scheme is continuing) contributions at the target-benefit valuation rate;
  (b) where past contributions are not known, use the insurer's estimated cash fund, excluding terminal bonus for with-profits and with a reasonable growth assumption for unit-linked.

Once the target benefits have been adjusted, contributions can be calculated as per § 3.5.

Where a special contribution at outset is intended in respect of past service, it is suggested that as far as is possible the value of the retained benefits relating to past service should be deducted from the special contribution otherwise payable, expected future contributions to other schemes acting to reduce the level annual contribution.

Equally, the death-in-service benefits arising from other arrangements, not forgetting any return of premium conditions under insurance policies, should be taken into account when assessing the maximum term assurance sum assured required by any particular scheme.

3.8. *A Little Bit of Theory*

It may be that the chosen financial basis will not be borne out in practice. For example, 9% may prove to be a conservative interest-earning assumption. If contributions were always calculated on a 9/8–9/7 basis but actual experience followed a 12/11–12/10 basis (i.e., maintaining the 1% differential but at a higher level), it can be seen from Appendix 3 that the initial contribution level is insufficient and has to increase with time. The opposite is true if 'reality' is a 6/5–6/4 basis.

As a somewhat theoretical corollary to this result, if the contribution levels are calculated on a 12/11–12/10 basis, the level annual contributions will be larger than on a 9/8–9/7 basis and, conversely, smaller if calculated on a 6/5–6/4 basis.

For $x=45$, the difference is clear

Financial basis of contribution calculation	*Contribution as a % of initial salary*
6/5–6/4	76
9/8–9/7	93
12/11–12/10	112

This result is not true for a 'percentage of salary' funding system, where, provided the 1% differential is maintained, the percentage contribution is the same for any level of the financial elements. More obviously, if the actual experience presents a larger interest–salary differential than that assumed, then the contribution level will need to be reduced as time goes by. And vice versa.

Where one or more members are close to normal retirement age at entry, and hence a short-term investment policy will be pursued, it may be necessary to use different assumptions to determine the maximum contributions. In particular, the yield on short-dated gilts, current money-market interest rates, insurance policy projected maturity values and life office annuity rates should be taken into account in choosing a basis. Moreover, some of the components of final pensionable salary may already be known.

3.9. *Afterthought*

It is salutory to consider that Redington[(2)], in 1952, said that he was standing at the narrow end of a "funnel of doubt" about the future of the various financial elements. He could predict with reasonable certainty where interest rates etc., would lie in the near future but the interval of uncertainty widened as the future receded.

Today, our situation is one of being reluctant to predict the *absolute* level of interest rates for even a few weeks into the future. But we are far more willing to stake a claim to knowing the long-term *relative* levels of investment earnings and salary growth.

Are we now standing at the other end of the funnel?

4. INVESTING THE CONTRIBUTIONS

In Xanadu did Kubla Khan
A stately pleasure dome decree.

(Coleridge: *Kubla Khan*)

4.1. *General*

Many of the investment canons applicable to large schemes carry over to small schemes, however their very smallness renders the achievement of a satisfactorily diversified portfolio more difficult and, where the members are close to retirement, the investment outlook must be for the short term rather than the long.

Few investments are strictly forbidden, excepting the making of a personal loan to a scheme member or a dependant thereof, but the SFO retain the right to remove the approval of any scheme where investments have been made that either create tax avoidance opportunities for the members or are not suitable for the scheme's liabilities. Investments unlikely to find favour include residential property capable of occupancy by one or more members of the scheme and non-income producing assets (e.g., works of art, gold bullion). If such investments are proposed, it is wise to seek the approval of the SFO before making the investment rather than running the risk of retrospective sanctions being imposed when the investment comes to light via the next triennial report and investment statement.

The types of investment unlikely to be questioned in most circumstances include:

(a) Cash on deposit with a bank or 'on call' in the money market.
(b) Gilt-edged and other United Kingdom fixed interest stocks.
(c) Listed U.K. equities and shares quoted on the Unlisted Securities Market.
(d) Exempt Unit trusts.
(e) Conventional or unit-linked insurance policies.

A particularly suitable investment for most small schemes are the units of a U.K. exempt "managed fund", whereby suitable diversification can be gained in respect of sector (fixed interest, equity and property) and also within each sector, without unduly high management charges being incurred.

Whilst it is not the actuary's business to involve himself in the investment decisions of the trustees, he may feel it necessary to draw their attention to certain investments that are proposed, or have been made, that he considers unsuitable (relative to the liabilities of the scheme), for example heavy investment in highly volatile stock shortly before the retirement dates of several members of the scheme. This advice may be given informally or in writing as a part of his next report.

Overseas investments may well form part of a small scheme's portfolio although because of the exchange rate risk and the difficulties and expenses of managing overseas assets, a maximum exposure should be decided upon, perhaps of no more than 10%, say.

As will be seen later (§7.1) the trustees are generally required to take professional advice on investment matters and, particularly where direct investment in a selection of quoted securities is proposed, they would be well advised to seek the services of a stockbroker or other expert to ensure that their portfolio is satisfactorily managed.

Consideration will now be given, in turn, to three other types of investment particularly relevant to small schemes; the company's own shares, property (particularly that occupied by the company) and loans to the employer.

4.2. *Unquoted Shares*

There are two categories of unquoted shares that appeal particularly to the trustees of small schemes; these are the employer's own shares and the shares in a related company, usually a client or supplier of the employer.

In common with all unquoted shares there are several problems that render the holding of all but a small proportion of the fund in these shares unsuitable. These include:

(a) lack of published information about the past performance and future prospects of the company;
(b) difficulty in realizing the shares at short notice and the resulting difficulty in assessing their value at other times;

(c) dependence of the company's future and profits on the success or failure of a single product.

In addition, the trustees, with the exception of the Pensioneer Trustee, might misguidedly have interests in mind other than that of the pension scheme when recommending the purchase of such shares and, because of personal connexions, are likely to hold an overconfident view in their own or a related company's prospects.

Where it is proposed that the scheme should purchase the company's own shares from one or more directors, further complications arise in that the Inland Revenue must give clearance for the sale to go ahead (under S.464 of the Income and Corporation Taxes Act 1970), ensuring that the shares exchange hands at a fair market value and that no Capital Gains Tax avoidance occurs.

Finally, the trustees should avoid obtaining a majority shareholding in any company because of the responsibility that this would entail in controlling the company concerned and because of the likelihood that the scheme would incur a taxation liability for 'trading'.

As a trustee, I would be reluctant to see more than about 10% of the fund in such investments in the long term, although a higher proportion might be acceptable immediately following a particular purchase.

4.3. *Property*

For most small schemes, the only property investment likely to appeal is one that will be leased to the employer, having either been acquired directly from him or developed by the scheme for him.

Other, independent, property investments are generally expensive to administer, in terms of both time and money, although perfectly feasible for the larger schemes after the first few years. Smaller schemes may be advised to look instead at the range of exempt property unit trusts available. At certain times properties can be difficult to sell and a careful watch should be kept to ensure that sufficient liquidity is available in the fund to meet the cost of pensions (and cash benefits) when members are expected to retire.

Employer-occupied property is likely to be even more difficult to realize, possibly because of the sitting tenant (the employer!) or difficulty in adaption to other users. Moreover the trustees, usually directors of the employer, may be unwilling to approve any sale that, although beneficial to the scheme, is not an attractive proposition to the employer. To avoid such problems, the SFO have made it known that they are unlikely to approve investment in employer-occupied property where one or more scheme members exceed age 45, unless it can be demonstrated that the property will not need to be realized at these members' retirements.

In the event of an unexpectedly early retirement or a death, where a large property investment has made the fund insufficiently liquid to meet the outgo arising, it is usually possible, where there are younger members, for the scheme to borrow on the security of the property, using the money raised to meet the immediate calls and avoiding the need for a premature realization of the property.

In many cases the purchase of the employer's property is the first investment proposed for many schemes because of the taxation advantages (see §5.3) arising. Whilst this can be criticized as possibly a little imprudent, it does have the advantage of encouraging large contributions to the scheme in the early years, thus getting the funding of the pensions off to a sound and desirable start.

Where the trust deed allows the trustees to borrow money, it is possible for the property purchased to exceed in price the contributions made to the fund; the property being mortgaged and interest and capital repayments coming from future contributions and rental income. To prevent the trustees saddling themselves with excessive debt, the SFO will usually not approve an investment requiring the borrowing of an amount in excess of three times the level annual contribution proposed for the scheme. This ensures that, company profits permitting, the outstanding loan will be repaid within 3 years.

Moreover, where a property purchase at the outset of a scheme is proposed, financed either by a large special contribution or by borrowing, the SFO also restrict the price of the property to three times the level annual contribution.

All properties must be purchased at a price that reflects a recent valuation by a qualified person (usually a chartered surveyor or chartered valuer), except where purchased from a genuine independent party at a lower price. The property must be leased at a market level of rent, subject to periodic reviews, the lease usually being fully repairing and insuring to remove from the trustees the need to administer the property, other than to ensure that the terms of the lease are being adhered to.

Residential property is unlikely to be approved as an investment for a small scheme unless it can be demonstrated to the SFO's satisfaction that the members of the scheme and their dependants will not be able to benefit in any way from the property (e.g., by occupying it on preferential terms). In particular, it is no longer possible, as might have happened in the early days of these schemes, for the trustees to purchase an overseas villa for the rent-free use of the directors and their friends and relations!

In connexion with all property investments it will be necessary for a solicitor to draft and/or examine all contracts and leases, to make appropriate searches and to carry out the conveyancing. The expenses of the transaction may be met by the scheme or by the company, the latter alternative usually enabling Value Added Tax (VAT) to be reclaimed. Similarly, proposed purchases should be surveyed to ensure that the trustees are getting value for money, even if the employer has been occupying the property for many years.

Where the scheme buys land with the intention of building a property thereon, it is important that the trustees employ a reputable and well-established contractor to carry out the work, for should those employed fail to complete the development, it can prove surprisingly difficult to find other contractors willing to complete the half-finished project. And the scheme may find itself with an expensive bricks-and-mortar white elephant.

4.4. *Loans to the Employer*

Loans by the scheme to the employer are popular investments for small schemes because, in addition to providing a good return on the capital invested, they also benefit the employer, which can only be good for that company's future and that of its employees, the scheme members. A similar 'double benefit' explains the equal popularity of the purchase and leaseback of the employer's property.

Just as it would be imprudent for an individual to make a loan to a third party without adequate security, it may also be considered so for the trustees to do so. Whilst the trustees might find it slightly ludicrous to envisage the possibility of taking action, as trustees, against themselves, as directors, to recover outstanding monies, it is certainly better in the event of the employer going into liquidation for the pension scheme to have first call on the company's assets rather than sundry other creditors.

Thus the trustees should endeavour to obtain the best security possible for a loan. A first charge over a property or other fixed asset is best but a second and/or floating charge may be all that is available and any debenture should contain clauses prohibiting the creation of further prior charges or the disposal of substantial assets without the lender's permission. Sometimes however, the employer may wish to borrow monies from the scheme, yet not be able to offer any satisfactory security. The trustees should only consider making an unsecured loan where the rate of return is judged sufficiently greater than that available elsewhere to justify the degree of risk involved.

The loan should be at a commercial interest rate, as for insured scheme 'loanbacks', and is more likely to gain SFO approval if annual repayments of capital are made. Interest should be payable at least annually and is usually at a variable (rather than a fixed) rate because the loan is usually repayable on demand to enable unexpected calls on the fund to be met.

The trustees, as directors of the borrower, should be made aware of the possibility of this demand being made and, in any case, the loan should be for a fixed term expiring well before the anticipated retirement dates of the majority of members. Unsecured loans should be for as short a term as possible.

The trustees, particularly the Pensioneer Trustee, may wish to have an independent accountant's assessment of the company's ability to meet the repayment of the loan, taking account of the proposed use of the loan.

The documentation of a secured loan should be prepared by a solicitor who should also investigate the extent of any prior charges on behalf of the trustees.

To prevent the use of loans to the employer as a device to permit a level of pension scheme funding that otherwise could not be afforded (e.g., by loaning

50% of every contribution to the employer immediately on receipt) and hence obtaining excessive relief from taxation for the employer, the SFO will only approve loans which are:

(i) not more than 50% of the fund at market value (at the time the loan is made) less any proportion of the fund invested in the employer's shares;
(ii) irregular (by which it is understood that loans for 2 years in succession will not count as regular but would for any greater period);
(iii) for a specific purpose (i.e., to fund a particular project, to assist with seasonal cash flow problems, etc.).

In particular, when small schemes are being 'sold', the directors concerned should not be encouraged to believe that 'loanbacks' are available at will. The above restrictions and procedures must be gone through and the best interests of the beneficiaries under the scheme always considered first.

4.5. *The 1983 Association of Pensioneer Trustees (APT) Investment Survey*

Early in 1983, the APT carried out a survey of investments held by schemes for which their members acted. Disappointingly, only 29 out of a total membership of about 80 replied; however, the respondents had responsibility between them for over 2,000 schemes, perhaps one-third of all small schemes at that time.

The assets revealed were only about £200 million yet, because of the youth of the majority of schemes, an annual contribution inflow of nearly £70 million was being achieved.

In 1979, the Government Actuary's survey of all pension schemes indicated that there was about £50 billion of scheme assets and a total annual contribution income of £9 billion. Extrapolating these figures to the beginning of 1983 suggests that small schemes account for nearly 2% of all pension scheme contributions and that, whilst their assets currently total under 1% of those of all schemes, this proportion will continue to grow for the forseeable future, particularly if the number of schemes continues to expand at a rate of about 2,000 per year.

The membership revealed in the APT survey had an average of just over two persons per scheme, suggesting that few schemes have more than two or three members. In total, therefore, there are unlikely to be more than about 15,000 members of such schemes. As the Government Actuary's figures embraced a scheme membership of about 12 million, it can be seen that contributions to small schemes are somewhat greater than 15 times those to other schemes, not unexpectedly, per member.

The actual breakdown of investments is shown in the table on p. 72.

Of the total, only ·3% was in index-linked stock, not too surprising at a time when real rates of return were at record levels. But, more unexpectedly, only ·4% of the total was invested in the employer's own stocks and shares.

	%
Cash deposits	27
Property	20
Insurance policies	17
Gilts & O.F.I.	12
Loanbacks	12
Managed fund	6
Equity	4
Unit trusts	1
Others	1

A similar pattern has been revealed in other, smaller surveys carried out in recent months and it is sufficiently different from a 'conventional' pension fund asset distribution to warrant further analysis.

The proportion invested in insurance policies and managed funds can be explained by the minimum requirements of life office hybrid schemes, although other practitioners also often suggest that some part of the scheme is invested in such a manner. Similarly, the high proportion in property is explained when it is noticed that 75% of it is leased to the employer.

Because of SFO prohibition, negligible amounts are invested in objets d'art and other non income-producing assets.

The very high proportion of cash on deposit and the virtual absence of investment in ordinary shares or unit trusts demonstrates, somewhat worryingly, that many trustees are unaware of, or unwilling to incur the additional costs in connexion with, the need to seek professional guidance on investment matters. The claim by some observers that a high proportion of money is kept liquid because of an "inherent conservatism" amongst trustees is, I feel, a rather naïve excuse for their own lack of communication with trustees regarding the trustees' duties. Of course, there will always be some cases where all the members are close to retirement or where a property purchase will shortly be made and where a holding of cash is desirable.

5. TAXATION

'It was as true', said Mr Barkis, '. . . as taxes is'.

(Dickens: *David Copperfield*)

5.1. *General*

Being exempt approved schemes under the Finance Act 1970, small schemes receive exactly the same taxation treatment as any other such schemes. The main points being:

(i) Company annual contributions are exempt from Corporation Tax.

(ii) Company special contributions are also exempt from Corporation Tax, but where the special contribution exceeds the annual in any year (or £10,000 if this is larger) the relief may be spread over a period not exceeding 5 years.

(iii) Members' annual contributions of up to 15% of salary are exempt from income tax at their highest rate. Members are not taxed on company contributions as 'benefits in kind'.
(iv) Investment income and capital gains are exempt from taxation, except for certain income arising from 'trading' ventures.
(v) Pensions in payment are treated as earned income in the hands of the recipient. Lump-sum benefits are tax free. Refunded members' contributions are subject to tax at 10%.
(vi) Schemes *are* subject to VAT and Development Land Tax.

What implications do these facts have for small schemes? Consider an example. A small company has had a successful trading year, so that after paying its directors' basic salaries there is still considerable profit remaining. There are several alternative courses of action possible.

(a) 'Plough back' the money into the company to finance expansion and, hopefully, further and higher profits in the future. And face a similar problem then.
(b) Pay substantial bonuses to the directors, subject to Income Tax at their top earned rate.
(c) Declare the profit, subject to Corporation Tax (possibly only at a small companies rate) and possible further taxation in the hands of the shareholders.
(d) Set up a small self-administered scheme for the directors, if necessary increasing salaries sufficiently to justify using the 'excess' profit as contribution to the scheme (but not to an extent that would make it unlikely that the proposed salary and annual contribution level could be maintained in the future).

Option (d) is generally the most tax efficient, the profits accumulating in a tax-free fund for the eventual benefit of the directors and yet, because of the possibility of loan to the employer and/or purchase of employer-occupied property, the company has not really lost the use of the money either.

Even if the making of a pension scheme contribution leads to a loss in one particular accounting period it is usually possible for taxation relief to be gained in respect of that contribution in other accounting periods when profits are declared. Moreover, money contributed to a pension scheme is safe from creditors in the event of the employer going into liquidation, with the possible exception of where the sole purpose of the contribution is to avoid the payment of such creditors.

It may be possible for a director to personally lend money to his company to enable it to make pension scheme contributions on his behalf. The contribution accumulates free of tax in the scheme rather than being taxed at the director's highest income tax rate (plus investment surcharge) and the benefits are either tax free or only subject to tax at the director's (in retirement) earned income rate.

5.2. *Obtaining Tax Relief*

How does a small scheme actually obtain tax relief? When the scheme receives exempt approval, the SFO inform the employer's Inspector of Taxes of this fact and when he sees the Company's next set of accounts he duly allows claims for Corporation Tax relief in respect of scheme contributions. From experience, it does not seem that the Inspector is informed by the SFO of the actuary's recommendations as to contribution levels, the policing of this aspect of the scheme being left to the SFO at the triennial report stage. At the same time, exempt approval will enable the Inspector to allow the scheme's own annual accounts without, in most cases, any assessment for tax and to repay to the scheme taxation deducted 'at source' from investment income.

Where an initial submission is made on the basis of an interim deed only, the SFO will, at their discretion, inform the Inspector of this and request that he defers any collection of tax due on contributions to the scheme or on the scheme's income pending its final approval on submission of definitive documentation. The recovery of tax deducted at source at this interim stage is less certain and may often have to wait for final approval.

5.3. *Capital Transfer Tax*

When a controlling director passes his shares in the company to his children, as he will often wish to do, either on his death or at some other time, perhaps when he retires, the transaction will be subject to Capital Transfer Tax. A small self-administered scheme can usually help in several ways to reduce the tax burden.

For example, the director could take a reduced remuneration from the company, contributions instead being made to a small scheme. Amongst other investments, the scheme could purchase from the director, over a period of time, his shareholding, Capital Gains Tax considerations permitting. The children, when they are appointed directors in due course, then join the pension scheme and by the time their parent is due to retire there should be enough scheme assets invested elsewhere for the pension to be purchased without the need to realize the company shares, effectively passing them on to the next generation. The children can then buy the shares from the scheme or, if they wish, leave them there to repeat the transaction for the benefit of their own children.

Alternatively, the valuation for CTT purposes of the shares can often be substantially reduced if the pension scheme, and not the company, own the company's premises. For this should effect the value of the shares on either a net asset basis or a price/earnings basis adjusted for asset backing level. This approach again requires a continuing membership of the scheme.

In fact, simply reducing profit 'ploughback' by contributing to a pension scheme can often reduce the value of the company shares.

5.4. *General*

Many tax-related strategies involving small schemes have been proposed from time to time concerning, for example, Industrial Building Allowance or the Business Expansion Scheme. Particularly where these strategies involve any 'double counting' of tax relief, the SFO may well be distinctly reluctant to grant approval.

6. ADMINISTRATION

O what a tangled web we weave . . . . (Scott: *Marmion*)

6.1. *General*

The name small *self-administered* scheme implies that the responsibility of administering the scheme lies with the trustees. Naturally, as with their other duties, they may employ professional assistance in day-to-day record keeping, correspondence, documentation, determination of members' entitlements, admission of new entrants, etc. Nevertheless, it remains the trustees' duty to ensure that such work is satisfactorily carried out.

Day-to-day accounts should be kept detailing cash flows into and out of the scheme, reconciling with bank and other statements at monthly intervals. A diary should be kept to ensure that payments of rent, interest, dividends, etc., are made on the due dates. The keeping of clear records will enable the scheme accountant to prepare his annual audit easily. All receipts, vouchers, bank statements and other documents should be kept to assist the auditor in verifying entries in the accounts.

Any taxation deducted at source on investment income should be promptly reclaimed at the end of the tax year in which that income was received. Cheques received should be promptly paid into the schemes account and the balance in any non-interest-bearing account kept to a minimum.

Whenever possible, expenses incurred in the administration of the scheme should be met by the company rather than by the scheme, as the former will often be available to reclaim the VAT on the expenses incurred, whereas the scheme will not. This applies particularly to the, often high, initial expenses incurred in the setting up of small schemes.

The SFO should be informed of major investment policy changes, particularly of property purchases and loanbacks to the employer, as soon as they have taken place (the SFO will usually require to examine copies of relevant documents, including property valuations) and must also be informed of transfers paid, benefits provided, etc., as undertaken by the 'administrator' (q.v. § 3.1).

Documents will have to be prepared, by a solicitor where necessary, verified, completed and filed. Share certificates, etc., must also be kept safe and prompt action taken in the event of rights issues and takeover bids, etc. Adherence to the terms of their lease by tenants must also be verified from time to time.

The administration aspects of setting up a scheme have been dealt with in Section 3. At the opposite end of the scale, the discontinuance of a scheme, in accordance with the rules, is much easier. Assets are realized and each member's accumulated credit (see § 6.3) can be applied as a single premium to purchase a deferred annuity from a life office. Alternatively, separate or bulk transfer values can be paid to other pension schemes.

There are many other duties that may not be obvious at first sight to those proposing to establish a small scheme and it is strongly recommended that all those without a good deal of time and knowledge of the pensions world should seek assistance in administration.

6.2. *Changes in the Contribution Level*

When a new director is appointed, it will normally be possible for the maximum contribution level recommended in the previous actuarial report to be exceeded. The actuary can make calculations similar to those performed at outset for the original members to determine the maximum level annual contribution in respect of the new entrant. If the director has past service as an employee of the company, a special contribution in respect of this service can be made at outset together with a smaller level annual contribution. The maximum contribution to the scheme is then increased by this amount.

The employer may also wish to make increased contributions in situations where contributions have not been at the level recommended in the most recent actuarial report or where directors' earnings have increased at a rate well in excess of that expected. Such increases in the contribution level can be calculated by the actuary on the basis used for his last report if still appropriate.

There will usually be no need for an interim actuarial report but, where the contribution level has increased significantly, a letter to the SFO from the actuary, justifying the increase, may be necessary.

When an exit occurs, the maximum contribution level will normally reduce by the extent of the individual maximum for the director concerned. Where excess monies are available (see § 6.4) the subsequent actuarial report will reveal surplus and a further reduction in contribution levels will result.

6.3. *Members' Entitlement to Benefit*

Amongst the records that should be kept are the member's earnings—to enable final pensionable salary to be determined on exit—and the contributions to the scheme by each member—to enable refunds to be made on early withdrawal or death.

As the scheme operates on the money purchase principle, it is necessary to decide at the time each company contribution is made, how the contribution is to be apportioned between the members, even if the decision is merely that the contribution is to be divided equally between the members. For otherwise there can be no determination of the share of the fund attributable to each member and disputes may well arise when exits occur.

When the contributions exactly equal those recommended by the actuary to provide maximum benefits, there can be no division of contribution other than the 'individual maxima' which make up the actuary's total.

Where the contributions are less than those recommended, there are many ways in which they may be allocated:

(a) Equally between the members.
(b) In proportion to the earnings of the members.
(c) In proportion to the individual maxima recommended by the actuary.
(d) In some more arbitrary manner.

Members' contributions, and any portion of the company's contribution paid as a premium to an insurance policy providing retirement benefits for the members, should be allocated to the members concerned and the trustees should ensure that the total allocated to each member does not exceed his 'individual maximum'.

The allocation of insurance policy premiums brings us to the 'earmarking' of specific assets to certain members. This is not permitted except in connexion with insurance policies for individuals, when the individual alone can be entitled to the proceeds of the policy (providing benefits in excess of his permitted maxima are not thereby provided). Thus, with this exception, all the members share equally in the investment performance of the fund.

This pooling requirement leads to the next question. Given the allocation of contributions, how are the members' shares of the fund, their 'accumulated credit', determined? Consider a simple case:

Year 1	Contributions:	Member 1	£2,000
		Member 2	£1,000
	Investments purchased at 100 rise to 150		
Year 2	Accumulated credit:	Member 1	£3,000
		Member 2	£1,500
	Contributions:	Member 1	£1,000
		Member 2	£2,000
	Investments fall to 100		
Year 3	Accumulated credit:	Member 1	?
		Member 2	?

The fund value is £5,000 but how is this divided between the two members? Total contributions have been £3,000 each, so should the division be 50:50? However, member 1 would argue that his contributions entitle him to £2,000+£667 whereas member 2 was only entitled to £1,000+£1,333. Clearly, the incidence of the contribution allocation must be considered as well as its amount, this being particularly important when new entrants are considered.

A system is required to put this weighting into practice and the following notional fund unitization method works very well.

Year 1	Contributions:	Member 1	£2,000
		Member 2	£1,000
	Unit price 100:	Member 1	20 units
		Member 2	10 units
	Investments purchased at 100 rise to 150		
Year 2	Unit price 150:	Member 1	20 units = £3,000
		Member 2	10 units = £1,500
	Contributions:	Member 1	£1,000 buys 6·67 units
		Member 2	£2,000 buys 13·33 units
	Investments fall to 100		
Year 3	Unit price 100:	Member 1	26·67 units = £2,667
		Member 2	23·33 units = £2,333

Thus the accumulated credit is uniquely determined.

Before applying this system, the contributions allocated to any insurance policies must be deducted, the value of the retirement benefits expected from the policies being added to the value of the 'units' to determine the accumulated credit.

Often, in practice, contributions will be made at times other than scheme anniversaries and, to avoid the need to make calculations of unit price, which requires a market valuation of the whole fund, more frequently than annually, contributions made during a scheme year would only be used to purchase units at a particular date, perhaps the preceding scheme anniversary.

When exits occur, and units have to be (notionally) realized, a valuation will have to be made to ensure that both the outgoing and remaining members are equitably treated. Theoretically, the valuations on receipt of contribution and on the exit of a member should be carried out on 'offer' and 'bid' bases respectively but, unless the money in or out forms a significant proportion of the fund, a mid-market valuation will suffice on both occasions.

The member's entitlement from an insurance policy will depend on the circumstances of the exit. Death may only produce a return of contributions whereas early retirement at the same date might provide a higher amount. The valuation of the policy on a 'going concern' basis may return yet another value! Thus, if this last value is taken towards the definition of accumulated credit, accumulated credit will reflect the value of the member's interest on an ongoing basis and not necessarily the money available to purchase benefits on exit at that time.

6.4. *Claims*

In the event of a 'claim'—death, retirement or withdrawal—the trustees should determine the member's accumulated credit and also the member's maximum permitted benefits from the scheme. Where the accumulated credit is insufficient to provide the maximum benefits, the employer may decide to augment the member's benefits by making a special contribution to the scheme, which will qualify for full and immediate Corporation Tax relief.

Returns of members' contributions and lump-sum benefits can be paid from the fund, the former after deduction of 10% tax that the trustees must pay to the Inland Revenue. Unless the time is unsuitable for the realization of assets, any pension benefits should be bought out from a life office, whichever offers the most competitive rates at that time.

As mentioned earlier, a 5-year 'period of grace' exists for which the trustees may defer the purchase of annuities and provide the pension, after deduction and transmission to the Inland Revenue of income tax at the basic rate, from the scheme. This allows the trustees time to realize assets such as property without being forced into a quick sale or to raise a loan on specific assets to avoid having to realize them at all, where other scheme members remain.

It should not automatically be assumed that the fund will provide all pensions for 5 years, anticipating that the fund will earn a greater return on the members' accumulated credit than is implicit in any life office's annuity rates. For circumstances at the end of those 5 years might be exactly those, of depreciated asset values, that this period was designed to avoid.

Where scheme rules permit pensions to be payable for 5 years certain, any annuity purchased after the member's retirement must only be 'guaranteed' for the remainder, if any, of those 5 years. To avoid the situation, unfortunate for the employer, where the pensioner dies shortly after an annuity has been purchased from a life office, the pension having being previously paid from the fund for several years and thus there being little or no guaranteed period, it is often possible for the trustees to purchase a 'capital protected' immediate annuity. This is an annuity which, on the pensioner's death, returns to the trustees the excess, if any, of the purchase price over the instalments of annuity paid to date, for the benefit of his dependants or the remaining members of the scheme.

Where the member's accumulated credit exceeds the cost of the maximum benefits payable to the member, it is possible to use some or all of the excess to provide for his pension to increase in payment, either at a guaranteed 3% p.a. or in line with the rise in retail prices. With the advent of index-linked Government stocks with maturity dates 40 years and more in the future, it is possible to purchase what are virtually index-linked annuities, although at considerable cost.

Alternatively, a pension escalating at 5% or even 8·5% p.a. can be purchased from a Life Office, the Office returning to the trustees any amount of pension that cannot, because the rise in the RPI since the commencement of the pension falls short of the escalation of the pension over the same period, be paid to the pensioner.

Finally, if the scheme continues, it is possible for a pension in payment to be increased each year in line with the rise in the RPI by using the member's accumulated credit to purchase incremental immediate annuities from a life office.

Eventually, when the pensioner and his dependants have died and all pensions ceased, any residual amount of accumulated credit can be used to benefit the other members of the scheme or, if the scheme then ceases to exist, can be returned to the employer.

The trustees, in exercising their discretion in the payment of lump-sum death benefits (for '20% directors' above age 75 this discretion is not available and the money must be paid to the surviving spouse or legal personal representative of the late member) will take due note of the written "expression of wish" of the member but must be aware of their responsibilities towards possible dependants not named therein who may have some claim to benefits and, if so deprived, may take action against the trustees for breach of trust. The trustees have a 2-year 'period of grace' in which to exercise their discretion and it may also be in the dependants' interest, if they are not in immediate need of the benefits, for the monies to continue to accumulate for as long as possible in the tax-free environment of the fund.

On withdrawal, the departing member will often wish to take a transfer value equal to his accumulated credit to the pension scheme of his new employer or to a 'section 32' arrangement with a life office. The rules usually permit the trustees to make such payments which, despite the problems occasioned by the need to realize assets at short notice, are often a better course of action than retaining the departed member's accumulated credit in the fund and having to keep in touch with the member until his death or retirement. In any case, the member will often not wish his future benefits to be under the control of his ex-colleagues. A possible third course of action for hybrid schemes is for the member's interest in the non-insured assets of the scheme to be realized and paid as a single premium to an insurance policy. The eventual benefits are then entirely determined by the investment performance of the insurance company rather than that of the remaining trustees.

It is also common for transfer or paid-up benefits on withdrawal to be enhanced as part of a package 'buying out' a director who wishes to leave the company. Again a special contribution can be paid but tax relief may have to be spread.

The pension fund may also be used to purchase some of the departing director's shares in the company, if his co-directors cannot afford to do so.

7. TRUSTEESHIP

Facilis descensus Averni. (Virgil: *Aeneid*)

7.1. *General*

Trustees of any pension scheme must carry out their office with due regard to their responsibility under Trust Law (the Trustees Act 1925, the Trustees

Investment Act 1961 and a large amount of case law). These responsibilities are fairly extensive but the main points applying to pension schemes are:

(i) To hold the assets of the trust for the benefit of the members.
(ii) To act impartially with respect to all beneficiaries.
(iii) To carry out their duties with utmost good faith.
(iv) To arrange the investment of the trust monies in a prudent manner.
(v) To ensure that the trust is operated in accordance with its deed.

Failure to carry out these duties satisfactorily may render the trustees, jointly and severally, in breach of trust and provide an injured beneficiary with grounds for legal action. Often it can be an accidental, rather than deliberate, breach that leads to an action; for example, the emergence of a previously unknown dependent of a recently deceased member, the trustees having already distributed the benefits, at their discretion, elsewhere. It is very important that any pensions expert involved in the setting up of small schemes should make clear to prospective trustees, preferably in writing, the onerous responsibilities that they are taking on.

I will allocate trustees to one of four categories:

(a) These who are scheme members and directors of the employer.
(b) Professional advisors of the employer (e.g., accountants).
(c) The Pensioneer Trustee.
(d) Others (e.g., beneficiaries, directors who are not members, etc.).

It is accepted by most, but not all, Pensioneer Trustees that it is not possible for the Trust Deed to limit or remove these duties from any particular trustee (viz., the Pensioneer Trustee).

It is somewhat anachronistic that the Pensioneer Trustee, whom the SFO do not require to have any purpose other than preventing an unauthorized winding-up, should have to bear the full burden of responsibility under Trust Law.

In (iv) 'prudent' can be interpreted as meaning taking as much care with the trust's money as the trustee would in investing his own money, whilst avoiding the occasional speculative investment that many prudent investors often irrationally make, and having due regard to the nature of the liabilities.

The Pensioneer Trustee can exempt himself from the day-to-day management of the scheme, but must exercise a supervisory role to ensure that he is made aware of any problems that may arise.

Trustees may be remunerated for time spent on trustee duties. In practice it is usually only the Pensioneer Trustee who receives any payment.

As the maximum number of persons who may be party to the ownership of land is four, a number of trustees in excess of this number can often lead to difficulties; the usual solution being for four trustees to be given authority to act in matters of property on behalf of all the trustees. Of course, the Pensioneer Trustee must be one of the four!

The trustees, including the Pensioneer Trustee, are required to meet at least once a year to review the period since their last meeting and to plan their future investment strategy. This meeting provides a good opportunity for the Pensioneer Trustee to catch up on the progress of the scheme, for various advisers to suggest investment opportunities and, every 3 years, for the actuary to present and explain his report. These meetings should be minuted and the opportunity may also be taken to approve the scheme accounts for the previous year.

If a trustee is likely to be absent from his duties for some length of time, or for a shorter period when some financial transaction requiring his approval is scheduled to take place, he may give a power of attorney to a chosen representative, in writing, to act on his behalf. He, nevertheless, retains responsibility for the actions of his proxy. Of course, the Pensioneer Trustee should not delegate his duties in this way.

7.2. *The 'Member' Trustee*

The 'member' trustees probably face the greatest conflict of interest. As member and trustee, their aims will be similar, namely obtaining the best return, subject to satisfactory security, on the monies invested. But in practice, human nature will often tend to relegate both these aspects of the scheme into second place behind their aims as directors of a small company.

Often the scheme will have been presented primarily as a device for reducing the company's tax liability in a particular year, with relatively little thought to the actual provision of pensions. Whilst there is little doubt that schemes set up in such circumstances will receive approval, it is important that intermediaries instil into the members the idea that their 'arrangement' is a long-term venture as well as being of immediate benefit and should be administered as such.

One conflict that may arise is when an investment is proposed that will be beneficial to the company or to the director's personally. It is very easy for the trustees to forget that the investment proposed must be considered relative to similar investments available elsewhere and only entered into if it is at least as attractive as the alternatives. Amongst other considerations, this requires that all transactions between the trustees and any related party should take place at a fair market value.

7.3. *The 'Professional' Trustee*

The company accountant or other adviser who first proposed that a small scheme be set up to reduce the company's tax liability and who has been appointed a trustee of the scheme should also avoid viewing any investment proposal that benefit the company through rose-tinted spectacles in order that his financial strategy prospers. In fact, professional trustees are regarded under law as having a greater responsibility, because of their knowledge and experience, than lay trustees.

Similarly, a trustee who provides or represents any organization providing services, including actuarial services, or insurance for a scheme must tread a careful course between his duties as a trustee and his natural desire to ensure that he or his organization continue to profit from the scheme. The trustee must be wary of the implied threat "If you don't agree to our investment proposals (or whatever) we will seek our services/insurance elsewhere."

In particular, where the trustee is an employee of an insurance company, he should ensure that when presenting his 'wares' to the other trustees he should ideally advise them that similar products are available elsewhere and that they may wish to examine one or more alternatives to ensure that they are purchasing a competitive product.

It may be advisable in this situation for an insurance company to be represented by two persons, one of whom is well versed in trusteeship and unmotivated by performance-linked earnings and the other a salesman. There is then less chance of any conflict of interest being unsatisfactorily resolved.

7.4. *The Pensioneer Trustee*

The conflicts mentioned in § 7.3 particularly affect the Pensioneer Trustee who also represents a life office. When the two-person solution is not available, he must delicately balance two hats on his one head.

In many cases he will be the only trustee fully aware of the duties and responsibilities of the trustees and of the workings of a pension scheme and he should attempt to ensure that his co-trustees are also aware of these responsibilities and should advise them when he thinks that a course of action they propose might lead to a breach of trust or might prejudice the approval of the scheme.

The Pensioneer Trustee's main duty, however, is to prevent the unauthorized winding up of the scheme. How is he to do this? It is clear that he must have control over the realization of investments held by the trustees, or else he will be unable to physically prevent the other trustees withdrawing scheme monies for other uses. This means that ideally he must be:

(i) A required signatory to all cheques and other withdrawals from the scheme bank accounts.
(ii) A co-owner of any property owned by the trustees.
(iii) Able to prevent the realization of all stocks, shares and unit trusts (which may only be possible in some cases if he actually holds the relevant certificates).
(iv) Able to call in the security under a loan in default without the consent of the other trustees.

Such strong policing of the scheme is unlikely to endear the Pensioneer Trustee to his co-trustees and, in practice, it is common to give the other trustees much more 'freedom'. The Pensioneer Trustee should be aware, though, that a history of small schemes being abused whilst under his care may render the SFO less favourable to his continuing to act in this capacity.

If the other trustees persist with a course of action that effectively removes money from the scheme without the Pensioneer Trustee's consent, his only course of action is to threaten to resign. Resignation will require him to inform the SFO of the circumstances of his leaving and if they indeed contravene current practice, the SFO may withdraw their approval of the scheme retrospectively, reclaiming all tax relief granted over the last 6 years. This threat alone can dissuade the trustees from following such a course. There are other circumstances in which a Pensioneer Trustee may wish to resign; these include when his fees have not been paid and when he fears that a breach of trust is about to be committed and for which he may otherwise share legal responsibility.

Conflict may also arise over investment strategy where the Pensioneer Trustee does not feel that proposals made by the other trustees are suitable for the scheme. Should he make the issue one of threatening resignation or should he give way to the majority view? This problem takes on an added dimension when the Pensioneer Trustee is also the scheme's actuary, for if he does not oppose the investment when it is proposed, he may none the less feel it necessary to criticize the investment strategy in his next actuarial report, thus drawing the SFO's attention to his fears.

Thus the role of Pensioneer Trustee is not purely nominal. It requires full involvement in the scheme as a trustee together with the additional responsibilities under Memorandum 58. It should not be entered into lightly.

8. SCHEME ACCOUNTS

They shall give account thereof in the day of judgement.

(St Matthew: 12: 36)

8.1. *Preparation of the Accounts*

Apart from the general desire of the directors, as members, trustees and employer, to have a record of the financial transactions of the scheme and a summary of the value of the assets, several other parties are interested in the annual accounts of a small scheme.

(i) The company's Inspector of Taxes will wish to examine the scheme's accounts annually to ensure that contributions claimed in the company's accounts have actually been paid to the scheme and that no activities have been undertaken that might render the scheme liable to taxation.

(ii) The SFO, whilst not necessarily wanting to examine individual year's accounts, will expect to find consolidated revenue accounts in each triennial actuarial report.

(iii) To the above end, therefore, the actuary will require copies of the accounts as well.

(iv) Finally, the Pensioneer Trustee, who must ensure that no monies have been improperly expropriated, will wish to see this confirmed at the end of each year.

The accounts should be examined by an independent accountant, together with relevant vouchers, and he should sign the accounts with words similar to the following:

I have examined the accounts set out above with the books and records of the ABC Pension Scheme in relation thereto and have obtained all the information and explanations required.

In my opinion the accounts have been properly drawn up in accordance with the said books and records so as to give a true and fair view of the transactions of the Trustees in relation to the investments of the said ABC Pension Scheme for the year ended 19XX.

Often this task is completed by the employer's own auditors at the same time as they are investigating his own accounts, sometimes with no additional charge to the trustees. This practice sometimes leads to the scheme accounts being prepared as at some date other than the anniversary of commencement. This is not particularly convenient for the actuary and should not be encouraged.

The majority of accountants who act for small companies will have little, if any, experience of accounting for pension schemes, and may not be aware of their profession's latest guidance in this area or of the particular demands of small schemes. Different accountants are likely to approach the same scheme in different manners and, as the actuary is to be a prime user of the accounts, it would be helpful to both parties if he could liaise with his fellow professional as to the most useful form for the accounts to take.

Particular points that may arise in their discussions are:

(a) Whether gilts, equities and properties, etc., should be included at market value or historic cost.

(b) How insurance policies should be treated, with regard both to term assurances and policies providing retirement benefits.

(c) The treatment of tax deducted at source yet to be reclaimed and other 'accrued' items.

Examples of the revenue accounts (income and expenditure) and the accompanying balance sheet (statement of assets) are given in § 8.2. The practices adopted are those outlined in the recent Accounting Standards Committee's discussion paper(3), in particular:

(i) Assets are taken at market value and an item 'Investment Capital Value Adjustments' appears in the revenue account.

(ii) Annual premium insurance policies are valued as the estimated single premium that would, together with the future contractual annual premiums, purchase the estimated benefits under the contract.

(iii) Term assurances have no value; premiums counting as expenses, any payments of sums assured as income.

The use of the method in (ii), a 'replacement cost' concept, requires the co-operation of the insurance company concerned in providing its current rates. Many accountants simply value such policies as the sum of the premiums paid to date. Whilst this is not inaccurate in the early years, it can lead to substantial understatement of the worth of the fund as retirements draw near.

8.2. *Suggested Format of Small Scheme Accounts*

INCOME

	£	£
Contributions received:	xxx	
From the employer	xxx	
From the employees	xxx	
	xxx	xxx
Transfer payments in		xxx
Income from investments:		
Interest in deposit account	xxx	
Interest on loan to . . .	xxx	
Dividends received	xxx	
Rent received from property at . . .	xxx	
	xxx	xxx
Proceeds of sale of investments		xxx
Investment capital value adjustments:		
Ordinary shares	xxx	
Property at . . .	xxx	
Insurance policies	xxx	
	xxx	xxx
Proceeds of insurance policies:		
Cash sums at retirement	xxx	
Cash sums on death	xxx	
Return of contributions	xxx	
	xxx	xxx
Recovery of tax deducted at source		xxx
		xxx

EXPENDITURE

	£	£
Benefits provided:		
Purchase of annuities	xxx	
Pensions paid (net of tax)	xxx	
Lump sum payments	xxx	
Return of members' contributions (net of tax)	xxx	
	xxx	xxx
Transfer payments out		xxx
Investments made (at cost):		
To deposit account	xxx	
Loan to . . .	xxx	
Ordinary shares purchased	xxx	
Property purchased at . . .	xxx	
	xxx	xxx
Premiums paid to insurance policies:		
In respect of retirement benefits	xxx	
In respect of death benefits	xxx	
	xxx	xxx
Tax deducted from benefits provided paid to the Inland Revenue		xxx
Sundry expenses:		
Auditors' fees	xxx	
Bank charges	xxx	
	xxx	xxx
		xxx

STATEMENT OF ASSETS
(at market value)

	£	£
Deposit Account		xxx
Loan to . . .		xxx
Property at . . .		xxx
Ordinary shares		xxx
Insurance policies		xxx
		xxx
Net current assets:		
Debtors	xxx	
less Creditors	xxx	
	xxx	xxx
		xxx

RECONCILIATION

	£	£
Asset value at 31.12. Y		xxx
Net income for year to 31.12. Y+1:		
Income	xxx	
less Expenditure	xxx	
	xxx	xxx
Asset value at 31.12. Y+1		xxx

9. THE TRIENNIAL ACTUARIAL REPORT

There are nine and twenty ways
Of constructing tribal lays,
And every single one of them
Is right!

(Kipling: *In the Neolithic Age*)

9.1. *Purpose of the Report*

Memorandum No. 58 requires that an actuarial report be prepared for a small scheme at least once every 3 years, yet gives no indication of what this report should contain. It seems reasonable to assume that the actuary should investigate how far the scheme has progressed towards providing the members with the 'target' benefits, having first reassessed these with regard to changes in the level of remuneration, and thus make recommendations as to the maximum contributions that may be paid to the scheme in the future.

The SFO also wish to see a triennial statement of the assets of the scheme and it is convenient if this is included as part of the actuarial report. There are several other aspects of the scheme that I would expect to find discussed, and I give below what I consider might be the contents of a typical report:

(i) Introduction and purpose of report.
(ii) A brief history of the scheme, mentioning any changes in rules that have occurred over the triennium.
(iii) Details of the current members and their dependants, highlighting any changes since the last report.
(iv) Members' salaries; percentage change over the triennium.
(v) Contributions that have been made to the scheme broken down by source, year and member to whom they were allocated.
(vi) Details of benefits provided (e.g., annuities purchased, contributions refunded, etc.).
(vii) A consolidation of the audited Income and Expenditure accounts for the period.
(viii) A summary of the assets of the scheme giving their market values.

(ix) A brief resume of the funding philosophy (i.e., money purchase).
(x) Details of any changes in the members' entitlements to benefits under other pensions arrangements which must be taken into account in determining the target benefits.
(xi) An indication of the degree to which the actuary is satisfied with the accuracy of the data provided.
(xii) Brief descriptions of the bases used to value assets and target benefits, mentioning in particular any changes in the basis since the last report or justifying the reasons for no change.
(xiii) Statement of the value of the target benefits and assets and of the maximum future contributions permissible, mentioning any special contributions that may be justified in respect of underfunding in the past.
(xiv) An indication of the proportion of the target benefits that might be provided if:
  (a) no further contributions were made to the scheme;
  (b) contributions to the scheme continued at the present level.
(xv) Statements of the maximum sums assured under term-assurance policies for death in service benefits.
(xvi) A brief assessment of how the recommendations made would be affected if future experience differed from the basis assumed.
(xvii) Comments on the achieved investment performance of the fund.
(xviii) Concluding remarks and general recommendations to the trustees.

For the first triennial report, particular attention must be given to explaining the method used for valuing the assets as this will not have been done in the initial report.

9.2. *Valuation Basis—General*

Prior to the preparation of each triennial report, the actuary should give consideration, similar to that given at commencement, to the financial and demographic elements of the basis to be used. This procedure might start from the basis used in the previous reports and examine whether there are any reasons to revise estimates of long-term economic trends or of the mortality of annuitants.

The actuary should then turn to the scheme and consider whether any aspects of it require special treatment (e.g., members close to retirement, unusual investment portfolio, etc.) and make adjustments to the 'general' basis.

Changes in the requirements of the SFO might also necessitate a revision in the basis previously used for the scheme.

Finally, if this is the first triennial report, particular thought must be given to a suitable basis and method for valuing the assets of the scheme. The next two sections of the paper discuss this in some detail.

9.3. *Valuation Basis—Assets*

There are two major methods, each with many variations, that are commonly used to value pension scheme assets.

(a) Discounted cash flow (d.c.f.) method. Estimated future income from the assets and eventual realization proceeds are discounted to the present and summed.
(b) Market value method. The assets are taken at their unadjusted mid-market value, unquoted assets being valued by a suitably qualified person.

What method should be used for small schemes? Perhaps the first thoughts to run through the head of an actuary considering this problem might be something like this.

(i) The d.c.f. method, at the same rate of interest as for the target benefits, seems somehow more scientific and 'consistent'.
(ii) There again, using market value and changing the target benefit valuation basis is equally 'consistent' and a lot simpler and easier for me to explain to the trustees.
(iii) But at the bottom of the market, the implied yields will be too high to maintain a 1% real yield gap and an 8·5% absolute salary growth rate—which is what I want.
(iv) And aren't market values prone to all sorts of emotive fluctuations, anyway?
(v) But perhaps I could time average and, after all, the trustees could switch all their assets into cash tomorrow, so what price a method which gives different values to assets with the same market worth?
(vi) And the short-term nature of many schemes means that market values are more relevant than for big funds.
(vii) But . . .

And the circular arguments continue. Perhaps the best way to see what the real problem is, is by a simple example. Consider a 9/8–9/7 scheme in which the initial contribution is used to buy a 20-year gilt, at par, yielding 15%. Interest rates drop and by the end of the year a gilt at par is only yielding 9%. The d.c.f. method would have valued the stock at about 150 throughout, the market value at 100 initially rising over the year to 150. It is thus a matter of deferring or anticipating investment profit and so of regulating the required contribution rate.

Our aim for small schemes was to produce a level annual contribution throughout the life of the scheme. Which, if any, method gives us the best chance of achieving this?

Clearly, if the assumptions in the target benefit valuation basis are borne out in practice, then either basis will do equally well. So let us examine situations where this is not so.

I will assume that the 1% real rate of return is achieved, for if it is exceeded or fallen short of, substantial over or under funding will occur. Consider, therefore, the case where the only investment available to the trustees is a 12% gilt at par, redeemable on the Normal Retirement Date of the sole member $x=25$. Salary increases at 11% p.a. A 9/8–9/7 valuation basis is used throughout (the actuary is stubborn, if nothing else!).

	Market-value method		*D.c.f. method*	
	Contribution level as % of		*Contribution level as % of*	
Age attained	*Initial salary*	*Current salary*	*Initial salary*	*Current salary*
25	66	66	66	66
35	87	31	65	23
45	115	14	75	9
55	156	7	199	9
64	240	4	3,254	56

The market-value method thus provides a smoother emergence of deficit and thus a more level contribution in money terms.

So what conclusions can our actuary come to, if any? Certainly that the market value of the assets should be taken into account when retirement is close for one or more members and that when market-interest rates are in excess of the valuation basis, the use of market values will lead to higher contributions in the early years of the scheme, attractive to the client for tax reasons. And probably that the actuarial satisfaction derived from completing a d.c.f. valuation is not equal to the effort expended in justifying his choice to the client!

Appendix 1 shows that, in practice, most actuaries *do* use market values, although some may be drawn towards a d.c.f. method where a high proportion of gilts are involved.

9.4. *Practicalities*

The target benefits will be valued in exactly the same way as for the initial report, taking account of the revised levels of remuneration and any changes of the members' dependants. As before, benefits provided by most other pensions arrangements will have to be taken into account and will reduce the target benefits. The actuary cannot assume that the position is as it was 3 years ago and must investigate whether further arrangements have been entered into or contributions in excess of those expected paid to existing arrangements.

Assuming that assets are to be taken at market value with the possible exception of fixed-interest stocks which might be valued by a d.c.f. method on the target benefit valuation basis, the next step will be to make such a valuation.

In some cases the scheme accountant will have provided the market value of all the scheme assets in his latest accounts, and providing these are for a period ending on the valuation date the actuary will have no more work to do, except for revaluing any gilts, if required, on the d.c.f. basis.

Where the accounts are not so obliging, the actuary may have to carry out, or request that the trustees carry out, the necessary valuations. Quoted investments can be easily dealt with but properties and unquoted stocks and shares must be valued by a suitably qualified person, i.e., surveyor and accountant respectively.

Insurance policies providing retirement benefits can be valued by the method discussed in § 8.1 or, following the method suggested by the SFO for retained benefits, as the accumulation, at the target benefit valuation rate, of the premiums paid to date. This latter method is really only suitable when members are not close to retirement.

A third method would be to discount the life office's projected cash fund at retirement to the present at the target benefit valuation rate. This is likely to give the largest value for the policy.

Term assurances and annual premium reversionary annuities providing death-in-service benefits can be ignored for valuation purposes.

It will finally be necessary to allocate a proportion of the asset value to individual members so that future contributions can be derived at on an individual basis. The method of 'accumulated credit' described in Section 6 will do this only if the valuation for this purpose (market value) and the actuarial valuation are the same. Where different bases have been used, it will be necessary to allocate the actuarial value of the non-insured assets in proportion to the accumulated credit (excluding insurance policies). The value of each individual's policy belonging exclusively to him.

9.5. *Recommendations*

The main recommendation of the report will be the level annual contribution payable to the scheme in the future to enable it to provide the target benefits, i.e., the maximum retirement benefits permitted by the Inland Revenue. For each member, individually, the future level annual contribution is given by:

$$\frac{\textit{value of target benefits} - \textit{value of notional asset share}}{\ddot{a}^{i}_{\overline{n}|}}$$

where n years remain to the member's Normal Retirement Date. The scheme contribution is again simply the total of the individual members' contributions.

As at outset, it may be possible for a special contribution to be paid, in addition to a (lower) level annual contribution, for one or more years from the valuation date, if pension 'entitlement' in respect of service to date (as described in § 3.5) has not been fully funded.

The next recommendation will be of the maximum level of death-in-service benefits allowed, determined exactly as in § 3.6, based on updated salary and other assumptions.

Particularly where the level of contribution to the scheme has been well below the maximum level, it will be very helpful to the members and the trustees if the actuary indicates what pension is likely to be provided if contributions continue at their present level. Such a projection would take the form—$X\%$ of final salary member's pension (together with, say, 2/3 $X\%$ widow's pension, where appropriate). A further useful statistic might be the level of benefits likely to be provided if no further contributions were paid to the scheme. These two items will also serve to concentrate the employer's mind on the pension provision aspects of the scheme as well as its more obvious taxation advantages.

Where the recommendations differ from those made 3 years previously, the actuary should comment on the reasons for the discrepancies. Have contributions been lower than the maximum or have salaries risen at a faster rate than expected, for example?

Another area where the actuary's advice may be useful to the trustees is that of investment. Where the data permits—annual accounts do not usually give cash flow dates, so copies of bank statements or the scheme's books may be needed—the actuary should calculate the achieved yield on money invested and, where this is exceptionally poor (or exceptionally good), draw the trustees attention to this fact and the reasons for it.

Where he considers that the holding of certain investments is unsuitable for the scheme, given the nature of the liabilities, e.g., if no readily saleable assets are available for a forthcoming retirement, the actuary should, in my opinion, include a warning to that effect in his report. In practice, where the actuary has contact at other times, or in other capacities, with the employer, such recommendations can be made less formally before the report is prepared and, if carried out, need not be mentioned (and thus drawn more to the SFO's attention) in the report at all.

The report will then come to a conclusion with any general recommendations that the actuary may see fit to make to assist the trustees in the future running of the scheme.

10. CONCLUSIONS

Never send to know for whom the bell tolls;
It tolls for thee.

(Donne: *Devotions*)

The number of small self-administered schemes will continue to grow for the foreseeable future as new small businesses are set up and the attention of existing businesses are drawn to the advantages of such schemes. Invariably, there will also be more schemes winding-up because of employer liquidation and, no doubt, also more cases where an attempt is made to abuse scheme monies.

With the growing maturity of some of the earlier schemes, the investment direction should be switching from loanbacks/company property/cash to unit trusts/equities/gilts.

The actuary's role, particularly where he also acts as Pensioneer Trustee, should be to ensure that the schemes for which he is responsible do not abuse their taxation advantages, particularly on winding up, and also that future contributions are invested in the most appropriate manner.

In doing so, he will be ensuring that the degree of freedom granted to small schemes by the Inland Revenue remains at the current, satisfactory level and that the members of the scheme and their beneficiaries will be provided with a satisfactory level of benefits at the end of the day.

11. ACKNOWLEDGEMENTS

Few of the ideas in this paper are my own. In particular I would like to thank John Connold, Fred Herman and Ian Sissons whose concepts I have shamelessly borrowed. Moreover, the interested reader will profit, as I have done, from perusing the excellent introductions to this subject provided by A. L. Owen[4] and R. A. J. Waddingham[5]. I would also like to thank David Johnson and John Strange for reading my first draft and for preventing me from making more mistakes and omissions than now occur.

12. REFERENCES

(1) Small Self Administered Schemes, *Pensions*, March 1983, p. 17.
(2) Redington, F. M. (1952) Review of the Principles of Life-office Valuations *J.I.A.*, **78**, 276.
(3) 'Pension Scheme Accounts'. Discussion paper prepared by a working party set up by the Accounting Standards Committee, 1982.
(4) Owen, A. L. Small Self-Administered Pension Schemes. Presented to the Bristol Actuarial Society on 29 January 1981.
(5) Waddingham, R. A. J. Small Self-Invested Pension Schemes. Presented to the Manchester Actuarial Society on 29 October 1980.

APPENDIX 1

Results of a small survey of valuation assumptions amongst life office and independent actuaries responsible for about 2,000 schemes.

(i) Financial elements

Basis used	*No. of actuaries using basis*
9/8·5–10·5/8·5	4
9/8·5–10/8	4
9/8·5–9/7	3
9/8 –9/7	1
7–10/7–9* – 7–10/5	1

* depending on particular circumstances and term to retirement.

All respondents made no further explicit allowance for 'promotional' salary increases and all took full account of retained benefits.

(ii) Mortality in retirement

Basis used	*No. of actuaries using basis*
a(55)	4
a(55) downrated 1 year	1
a(55) downrated 2 years	2
PA(90)	3

(iii) Asset valuation

Basis used	*No. of actuaries using method*
Market value	2
Market value (possible d.c.f.)	2
Market value (possible time averaging)	1
Market value (possible d.c.f. and averaging)	1
D.c.f.	2
No response	2

'Possible' indicates that the technique referred to is used for certain asset types or in certain situations only.

APPENDIX 2

Growth of the fund, assuming that the 9/8–9/7 valuation basis is actually experienced, under various contribution patterns. Initial salary 1,000.

(i) Level percentage of salary

		Fund value			
Age at outset		*25*	*35*	*45*	*55*
Contribution (% of salary)		*23%*	*32%*	*51%*	*106%*
	25	0			
	35	522	0		
Age	*45*	2,364	731	0	
attained	*55*	8,032	3,309	1,150	0
	60	14,106	6,225	2,596	802
	65	24,271	11,242	5,207	2,412

(ii) Level annual contribution

		Fund value			
Age at outset		*25*	*35*	*45*	*55*
Contribution (% of initial salary)		*66%*	*76%*	*93%*	*146%*
	25	0			
	35	1,091	0		
Age	*45*	3,675	1,253	0	
attained	*55*	9,791	4,220	1,546	0
	60	15,495	6,986	2,988	950
	65	24,271	11,242	5,207	2,412

(iii) Special contribution and level annual contribution

		Fund value			
Age at outset		*25*	*35*	*45*	*55*
Past service		*0*	*10*	*20*	*30*
Special contribution (% of initial salary)*		*0%*	*212%*	*465%*	*764%*
Annual contribution (% of initial salary)		*66%*	*57%*	*47%*	*36%*
	25	0			
	35	1,091	0		
Age	*45*	3,675	1,441	0	
attained	*55*	9,791	4,352	1,873	0
	60	15,495	7,066	3,186	1,413
	65	24,271	11,242	5,207	2,412

* assuming service commenced at age 25.

APPENDIX 3

Level annual contributions (as a percentage of initial salary) required from time to time if experience differs from the 9/8–9/7 valuation basis.

(i) Actual experience corresponding to 12/11–12/10 basis.

	Age at outset			
Age attained	*25*	*35*	*45*	*55*
25	66%			
35	87%	76%		
45	115%	100%	93%	
55	156%	132%	123%	146%
64	241%	184%	162%	188%

(ii) Actual experience corresponding to 6/5–6/4 basis.

	Age at outset			
Age attained	*25*	*35*	*45*	*55*
25	66%			
35	50%	76%		
45	38%	57%	93%	
55	27%	42%	70%	146%
64	16%	30%	53%	112%