B.A.J. **4**, III, 485-546 (1998)

TRADED ENDOWMENTS

BY P. MCGURK

[Presented to the Faculty of Actuaries, 19 January 1998]

ABSTRACT

The paper describes the main features of the market in traded endowment policies (TEPs) and the role of the main players in the market. The controversial, and related, issues of how to put a value on a traded endowment policy and the information given to investors are examined. The issues facing life offices whose policies are traded are discussed.

KEYWORDS

Traded Endowment Policies; With-Profits; Surrender Values; Asset Shares; Valuation; Investor Information

CONTACT ADDRESS

P. McGurk, B.Sc., F.I.A., Barnett Waddingham, Bow Bells House, 11 Bread Street, London EC4M 9HN, U.K. Tel: +44(0)171-427-7000; Fax: +44(0)171-427-7171

1. INTRODUCTION

1.1 *This Paper*

1.1.1 This paper follows on from a paper with the same title presented to the Staple Inn Actuarial Society (McGurk, 1996). Much of the content is the same as, or very similar to, that earlier paper, but some material has been omitted and other sections have been updated to the time of drafting (November 1997). At the time of drafting, much is happening in the field of traded endowment policies (TEPs), including separate reviews into different aspects of the market being conducted by both the Securities and Investments Board (SIB) and the Personal Investment Authority (PIA).

1.1.2 The earlier paper excepted, there has, to my knowledge, been no significant literature on the subject published within the actuarial profession. Clode (1991) contained a very detailed study of the technical background and development of the market to that point.

1.1.3 This paper aims to provide background information on the TEP market, with particular emphasis on technical areas of interest to actuaries. I have endeavoured to check the factual material presented, but apologise for any errors that may remain. Any views expressed are entirely personal, and do not purport to represent those of my firm or any body within the life industry, traded endowment market or actuarial profession.

1.2 *What is a Traded Endowment Policy?*

1.2.1 A traded or 'second-hand' endowment is a conventional with-profits

endowment contract that, having run for part of its term, is then sold by the original policyholder and the benefits assigned absolutely to a new owner. On all such policies the benefits on death or maturity are made up of the original, or 'basic', sum assured plus reversionary bonuses, added annually, and a terminal bonus added on death or maturity. All bonuses are expressed as a percentage of the original sum assured or attaching reversionary bonuses. Unitised with-profits contracts are not currently traded in the market.

1.3 *Who are the Key Players?*

1.3.1 There are a number of different players in the market, but, at its heart, are two types of institution:

— *Market makers*. These act as principals, by buying policies onto their own books for subsequent re-sale at a profit. The bulk of the market is now in the hands of market makers.
— *Auctioneers*. These act as agents of the vendor, by arranging the sale of the policy to the highest bidder in exchange for a commission.

1.4 *Why does the Market Exist?*

1.4.1 With apologies for stating the obvious, the market exists because investors are willing to pay more for the future benefits payable under a continuing policy than a life office is willing to pay to the policyholder to surrender it. In fact, they must be willing to pay substantially more, since, taking the market maker route as an example, the difference must cover some or all of the following:

— premium over surrender value payable to vendor;
— commissions to IFAs for introducing vendor and/or purchaser; and
— administrative costs and residual profit of the market maker.

1.4.2 The scope for the market to exist is supported by the figures in Table 1. These were derived from a survey of with-profits business in the July 1997 edition of *Planned Savings*. The table looks at the surrender values of 25-year term endowments, surrendered on 1 April 1997, after running for 10, 15 and 20 years. They are compared with the maturity values of policies with equivalent full terms. All cases are for £30 per month premiums effected on a male aged 30 at outset. The table shows surrender value 'discounts' calculated as follows:

$$\text{SV discount} = 1 - \frac{\text{Surrender value of 25-year policy after } t \text{ years}}{\text{Maturity value of } t\text{-year policy}}.$$

1.4.3 The figures in Table 1 need to be interpreted with some caution, since commissions and sums assured are higher on a 25-year policy than on the lower terms. Also, other initial expenses may be apportioned in proportion to commission. The surrendered policies, therefore, will have suffered higher expense and mortality costs than the maturing policies with which they are being

Table 1. Comparison of maturity values and early surrender values at 1 April 1997

	10 years		15 years		20 years	
	SV	1 – SV/MV	SV	1 – SV/MV	SV	1 – SV/MV
Axa Equity and Law	5,168	21%	9,675	26%	24,464	18%
Clerical Medical	5,788	23%	9,303	30%	24,763	17%
Commercial Union	5,746	28%	10,244	20%	23,026	16%
Equitable Life	5,908	10%	12,740	9%	28,380	4%
Friends Provident	5,871	26%	11,092	22%	24,957	21%
General Accident Life	6,072	20%	12,237	15%	26,848	18%
Legal and General	5,744	17%	10,392	19%	23,808	17%
Norwich Union	5,757	24%	10,151	22%	23,548	18%
Royal Sun Alliance	5,577	29%	9,392	22%	22,229	22%
Scottish Amicable	5,384	31%	8,779	33%	19,683	25%
Scottish Life	5,576	28%	9,549	24%	23,708	20%
Scottish Mutual	6,449	23%	11,482	23%	23,608	27%
Scottish Provident	5,550	19%	10,313	24%	21,934	25%
Scottish Widows	6,096	20%	11,799	16%	27,393	12%
Standard Life	5,921	16%	11,242	19%	25,569	13%
Sun Life of Canada	6,170	32%	9,852	30%	21,841	28%
Tunbridge Wells	6,104	26%	10,576	20%	24,625	18%
Wesleyan	6,244	20%	11,660	21%	27,370	20%
Average	5,840	23%	10,582	22%	24,320	19%

Source: *Planned Savings*, July 1997

compared, and this will be reflected in asset share calculations used as a basis for setting maturity payouts and surrender value scales.

1.4.4 However, it is difficult to see how these factors, in isolation, can explain many of the figures shown in the table, particularly for the 20-year comparison. The conclusion must be that there is some scope for a market to exist in second-hand policies to provide arbitrage between surrender values and maturity values. This scope differs significantly from office to office and from policy to policy within the same office.

1.4.5 It is worth noting that Equitable Life have the lowest surrender value discounts. Their policies are rarely, if ever, traded on the second-hand market.

1.5 *The Public Interest*

1.5.1 An auction market in traded endowments has existed for over 150 years. Volumes traded remained small until the late 1980s, when new players entered the market in the form of market makers. In a few years the volumes traded have expanded dramatically, and are expected to exceed £200m in 1997.

1.5.2 When the market was a small backwater there was little cause for life offices, regulators and actuaries to pay too much attention to it. Over 20,000 policies will be traded through the market in 1997, and a far greater number of surrendering policyholders may be missing out on a better deal. In McGurk (1996) I posed the question of whether life offices and regulators should now be

paying closer attention to this market, to protect the interests of investors and original policyholders who sell into this market and those who could, but do not. As discussed below, much is now happening, with SIB, the PIA and the actuarial profession all looking at aspects of the market.

2. A Brief History

2.1 *A Quiet Backwater*

2.1.1 The Life Assurance Act of 1774 prohibited the issue of policies effected on lives in which the policyholder had no interest to prevent the then widespread practice of gambling on human life. The legal interpretation of 'insurable interest' and when it should exist was developed by subsequent case law. In particular, the case of Dalby vs. India & London Life (1854) established that insurable interest need only exist at the time the policy was effected — no insurable interest is required of any subsequent assignee.

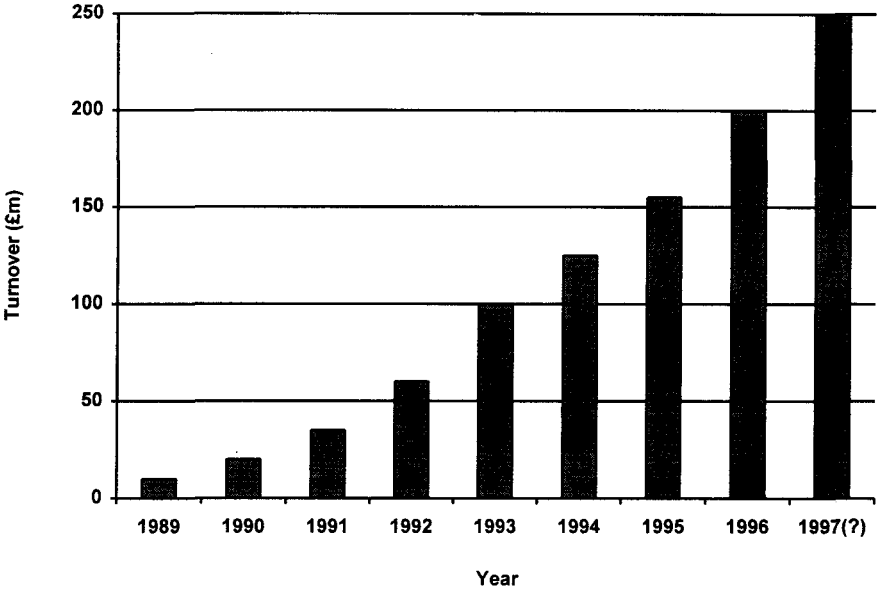
2.1.2 Sales of policies for assignment have been taking place since the latter part of the 18th century, and are evidenced by advertisements placed in newspapers of the day. The first public auctions of policies commenced in 1843 under the name of a Mr Marsh. The business went into liquidation in the 1880s, and was purchased from the liquidator by Messrs Foster & Cranfield. The firm of Foster & Cranfield continued the business, and still operate policy auctions to this day. The policy auction business remained a quiet backwater until the late 1980s. Typically there would have been one sale per month with some 10-20 lots per sale, made up of both policies and reversionary interests.

2.2 *Rapid Development*

2.2.1 In 1988 a firm called Policy Network entered the market. It acted in a similar role to an estate agent, by valuing policies and circulating details in order to match buyers with sellers. The process could, however, take a considerable amount of time to find a buyer and complete the sale — a source of frustration to vendors who may require the cash urgently.

2.2.2 Other people were now becoming aware of the potential of the market, and in 1989 the first market maker, Policy Portfolio, appeared, to be followed shortly by others. Such market makers bought policies as principals, and kept policies on their books until a buyer was found. The policies purchased could be financed until resale, largely by borrowing, using the policies themselves as security. Other market makers were formed in the early 1990s, and the market developed rapidly, using successful marketing to develop the awareness of vendors, investors and advisers. The rapid development is illustrated in Figure 1, which shows the turnover of the market since 1989.

2.2.3 The rapid increase in market players and volumes traded in the early 1990s brought with it a need to establish a forum to pursue the common interests of those players, to avoid duplication of some necessary functions and to provide



Source: Association of Policy Market Makers

Figure 1. Development of traded endowment market turnover

for an orderly and consistent market in traded endowments. The Association of Policy Market Makers (APMM) was founded in 1992, and at the time of drafting has 8 members, including the largest auction house. The APMM has a Code of Practice governing the conduct of its members, to which they are expected to adhere.

2.2.4 Another aspect of the attempts of the market to improve its image has been the encouragement given to the press, etc. to refer to it as the 'traded endowment policy' market rather than the 'second-hand endowment policy' market. SHEPs have become TEPs.

2.2.5 Regulation of the market has developed rather haphazardly. Market makers who deal directly with the public are required to be regulated under the Financial Services Act. The first reference to the market in a regulator's rules appeared in February 1992. All the members of the APMM are required, as a condition of membership, to be regulated by the PIA. Other market makers who deal only via other regulated firms (principally IFAs) are under no requirement to be regulated.

2.2.6 A key milestone in the industry was the launch, in July 1992, of the Kleinwort Endowment Policy Trust plc (KEPT), an investment trust established to invest in traded endowments. There are now several other publicly quoted funds available to United Kingdom investors.

2.2.7 The prospect of 'windfall' gains from demutualisations, takeovers and distributions of 'orphan' assets have increased the appetites of investors for traded endowments in recent years. The flow of funds from maturing TESSAs has also boosted demand for relatively stable investments, offering the prospects of better returns than those available from bank and building society accounts.

2.2.8 Any glance at the substantial volume of advertising carried out by the traded endowment industry will confirm that this is directed mainly towards acquiring policies from people considering surrendering their policies. The future success of the industry will depend on the degree to which potential surrenders can be directed towards the market.

3. THE PLAYERS IN THE MARKET

3.1 *Original Policyholders*

3.1.1 It will come as no surprise to learn that the majority of policies reaching the market were originally taken out in connection with mortgage arrangements. Research by a leading market maker amongst policyholders selling their policies shows that some 80% of policies were taken out for this purpose, the remainder being taken out as a savings plan or, to a lesser extent, to provide

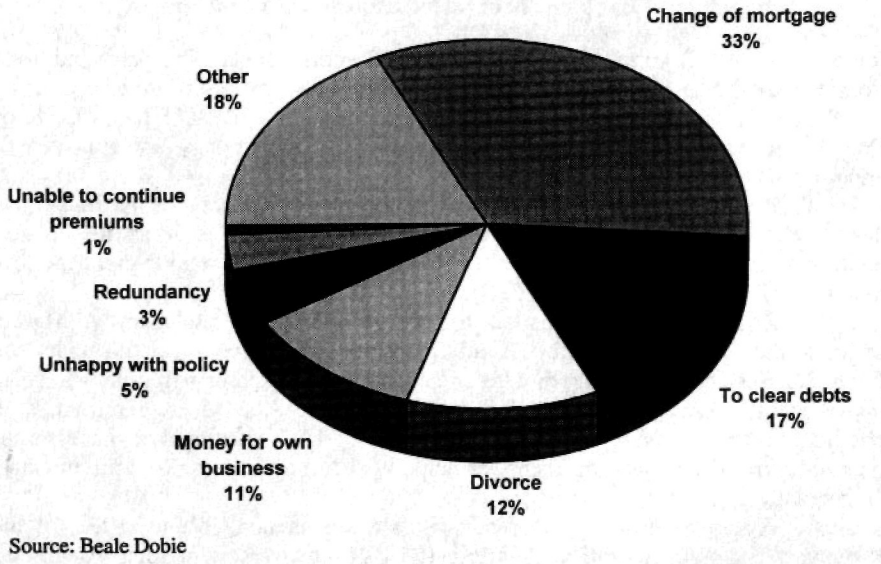


Figure 2. Reasons for selling policy

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

life cover. Of more interest are the results of that research into why policyholders are disposing of their policies. These are summarised in Figure 2.

3.1.2 It is not difficult to infer from some of the above reasons that some policyholders will need their cash in a hurry. One of the drawbacks of the traded endowment market is the time taken in many cases between accepting an offer from a market maker (or selling at auction) and receiving the cash. This is largely the result of the time taken to complete the legal work involved in transferring title to the policy, in particular in establishing that the seller has title to the policy.

3.1.3 A policyholder considering surrendering a policy has other alternatives which he may not be aware of, these being:

— make the policy paid-up;
— obtain a loan from the life office or another lender using the policy as security; and
— sell the policy through an auctioneer or market maker.

3.1.4 It is clear that IFAs are under an obligation to advise policyholders of the possibility of obtaining a higher price in the TEP market. However, if no IFA is involved, which is the majority of cases, the policyholder may not be aware of the existence of the TEP market. The advertising aimed at such policyholders is extensive, but the feeling within the market is that no more than 25% of policies which could be traded are currently being traded. This proportion has increased, and will, no doubt, continue to increase. Nevertheless, some 60,000 policyholders may be surrendering this year for sums less than they could obtain by selling in the market. The question of the information given to surrendering policyholders by life offices and tied agents is discussed in detail later in the paper.

3.1.5 If the policyholder or his adviser is aware of the market, he should also be aware that there are many possible market maker buyers, not all of which deal directly with members of the public, in addition to the auction route. Getting the best deal involves some 'shopping around'.

3.2 *Investors*

3.2.1 Investors in TEPs tend to be generally more wealthy and sophisticated than the individuals who sell into the market. The auction market, until the late 1980s, was dominated by private investors and a number of family trusts. The rapid expansion of the market has seen a number of new types of investor. Investors can hold anything from a single policy to a large fund of thousands of policies requiring significant management and professional advice. The following are the main classes currently active.

3.2.2 *U.K. private individuals*

The U.K. private investor would tend to be of high net worth, and most would be over age 45. The nature of the investment, producing a smoothed return on a known date, gives traded policies a role in retirement and school fees planning.

They are also used to provide cash for family occasions such as weddings and anniversaries, and have a role in inheritance tax planning.

3.2.3 *Overseas private investors*

Traded policies are very popular with overseas investors, particularly in Germany, Scandinavia and the Far East. Their popularity is partly as a result of favourable tax treatment given to certain life assurance policies in the countries concerned, which is deemed to include second-hand U.K. policies.

3.2.4 *Trusts*

Trusts, especially family trusts, invest in the market.

3.2.5 *SSASs and SIPPs*

Small self-administered schemes (SSASs) and self-invested personal pensions (SIPPs) are significant investors. The access to an underlying spread of assets with a low volatility and a fixed maturity date make them attractive. This attraction has been enhanced by the introduction of provisions for annuity deferral, enabling a portfolio of policies to be constructed to provide a regular income drawdown and a final annuity purchase fund at age 75 or earlier. The investment of pension scheme assets in policies which are themselves invested in a taxed fund is a possible objection to the use of traded policies. It appears that such investors and their advisers have concluded that the expected returns and risk profile on such policies compare sufficiently favourably with gross returns on other assets to overcome the objection. The abolition of ACT credits will have increased the relative attraction of TEPs for gross funds.

3.2.6 *Group pension funds*

Some group pension funds invest in policies as part of their portfolio. These tend to be at the smaller end of the spectrum.

3.2.7 *Collective investment vehicles*

It has been mentioned above that there are a number of publicly quoted funds available to U.K. investors. There are also a number of large private funds managed on behalf of groups of investors in the U.K. and overseas.

3.3 *Auctioneers*

Although auctioneers now account for less than 20% of the market, they have been around for 150 years and are dealt with first on grounds of seniority. There is only one firm, Foster & Cranfield, carrying out public auctions in a saleroom, as we know them. There are other firms described as auctioneers which operate in a different manner. Auctioneers act as agents of the seller and are remunerated by commission on a stated scale.

3.4 *Market Makers*

Market makers now account for over 80% of the total market. They operate by purchasing policies onto their own books for onward sale to investors. They are remunerated by the difference between sale and purchase prices less any commissions and disbursements involved.

3.5 *Brokers*

This category includes IFAs in the U.K. and brokers overseas. The former are involved in advising both policy sellers and investors, whereas the latter would deal principally with investors. IFAs are generally paid a commission by market makers of 3% of the sale price on any policy purchased through them. IFAs may also be paid a commission by auctioneers in respect of sellers introduced by them — e.g. Foster & Cranfield would typically pay a commission of 1/9th of the difference between sale price and surrender value. Market makers also pay commission on policies sold on to investors via intermediaries. Again this is typically 3%, but some market makers pay higher amounts.

3.6 *Trawlers*

3.6,1 An IFA involved in the sale/surrender of a policy is under a duty to provide 'best advice' to his client. If such advice involved the sale of the policy in the TEP market, with the IFA arranging the sale, then 'best execution' would involve finding the highest price for that policy. At any one time there may be, say, 15-20 firms in the market to buy policies. Obtaining the best price may, therefore, be a time-consuming business for the non-specialist IFA.

3.6.2 To meet this problem, a few firms provide a specialist service to IFAs, being effectively 'IFAs' IFAs'. These firms will trawl the market for the best price, and are geared up to circulate the market with the policy details required to enable a market maker to provide a quote. They are remunerated by a share of the lead IFA's commission.

3.6.3 It should be noted, however, that some market makers do not deal with trawlers or only with selected trawlers. The reason for this is that they feel that the work involved in producing a quote is disproportionate to the chances of obtaining the business in such a wide market place.

3.7 *Life Offices*

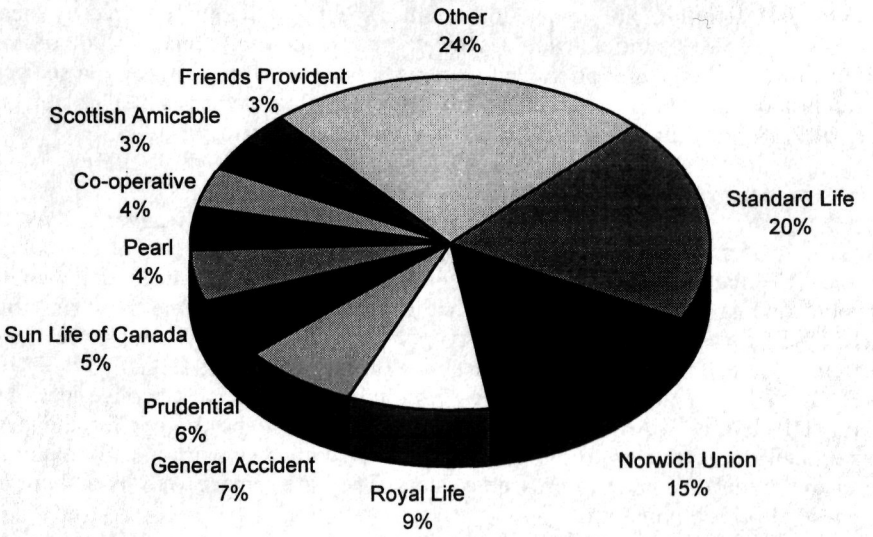
3.7.1 The life offices themselves hold a key influence on the market for four principal reasons:

— They provide the basic commodity traded.
— The market exists because investors value the policies significantly higher than the surrender values payable by offices. If offices increased their surrender values, the policies may no longer be tradable.
— Supply to the market is heavily influenced by the information given to policyholders who seek to surrender their policies. Most such people will

remain ignorant of the possibility of obtaining a greater sum in the TEP market unless they are told by the life office.

— The life offices are required to provide administrative services involved in the transfer of title to the new owner. This aspect has improved considerably, but can still take several months in extreme cases.

3.7.2 An indication of the breakdown of the market by life office is shown in Figure 3. This was derived from an analysis of the stock lists of three leading market makers. Note that the proportions can change significantly from time to time, especially in response to changes in surrender value bases.



Source: Beale Dobie, Policy Portfolio, Securitised Endowment Contracts Stock Lists, Sep 96-Jun 97

Figure 3. Breakdown of market by life office

4. PRICING

4.1 *Introduction*

The method of pricing TEPs is a legacy of the days when the market was much smaller and less sophisticated than it is today. It is also a legacy of a time when investment returns and bonus rates were more stable than today, and projected returns were given on the basis of current bonus rates. I believe that there are problems with the method and the related disclosure applying at the time of drafting this paper, which may result in some investors being given

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

unrealistic expectations of the returns that they will receive. The method is, however, objective and relatively straightforward to explain.

4.2 *Basic Method*

4.2.1 The basic method of pricing second-hand contracts for sale is:

(1) Project the maturity value on the basis that current rates of reversionary and terminal bonus are maintained to maturity. This is known as the 'formula maturity value' or FMV.
(2) Calculate the present value of the FMV using a specified rate of interest, known as the 'average discount rate' or ADR.
(3) Calculate the present value of the stream of future premiums payable by the investor using the same interest rate as in (2).
(4) The price is the present value of the FMV less the present value of future premiums i.e. (2) – (3).

4.2.2 For any given price the ADR can be calculated. This is invariably quoted to potential investors by market makers on their stock lists. Although the ADR is the 'headline' indicator of the pricing basis, it is not the case that all policies are priced by a market maker using the same ADR. There are a number of factors affecting the ADR which are discussed below.

4.2.3 Note that there is no element of mortality in the basis. This reflects the fact that investors purchase with a view to holding to maturity, and will not, in most cases, attempt to ascertain whether the life assured is still alive after purchase.

4.2.4 A schematic representation of the pricing method is set out in Figure 4.

4.3 *Calculation of the Formula Maturity Value*

4.3.1 The calculation of the FMV is generally a straightforward process based on applying current rates of reversionary and terminal bonus to the basic sum assured and/or attaching bonuses to calculate future bonuses. The main complications are:

— whether bonus scales are compound or 'super compound';
— offices operating more than one bonus series;
— whether bonuses declared on non-annual premium policies are proportionate or not;
— unconventional bonus rate structures e.g. Sun Life of Canada operate a North American-style 'contribution' system; and
— special bonuses declared from time to time.

4.3.2 For unconventional bonus structures, or where a bonus series has not been in force long enough to be declaring terminal bonus rates for a term equal to that of the policy being valued, a different method is used. In such cases the FMV is generally based on the maturity value of a currently maturing policy from an earlier bonus series having the same sum assured and term.

4.3.3 Clearly, it is vital to know when life offices change their bonus rates.

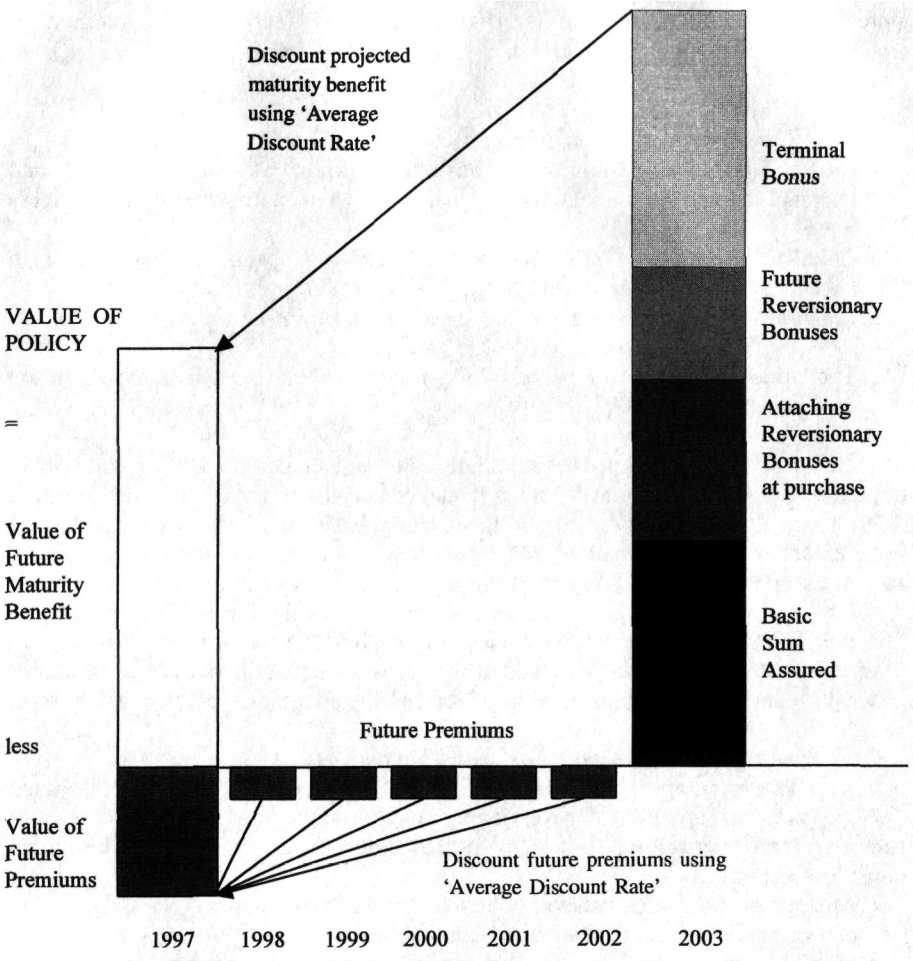


Figure 4. The pricing of a traded endowment policy

The Association of Policy Market Makers delegates this task to their Technical Committee, which establishes contacts within the offices and systems for verifying any new rates communicated to them. The intention is that details of new declarations are obtained as reliably as possible and introduced into the pricing systems of member firms at the same time.

4.3.4 The Technical Committee would also deal with the treatment of special bonuses and policyholder benefits arising from mergers, demutualisations, etc., to ensure an agreed and consistent approach between market makers.

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

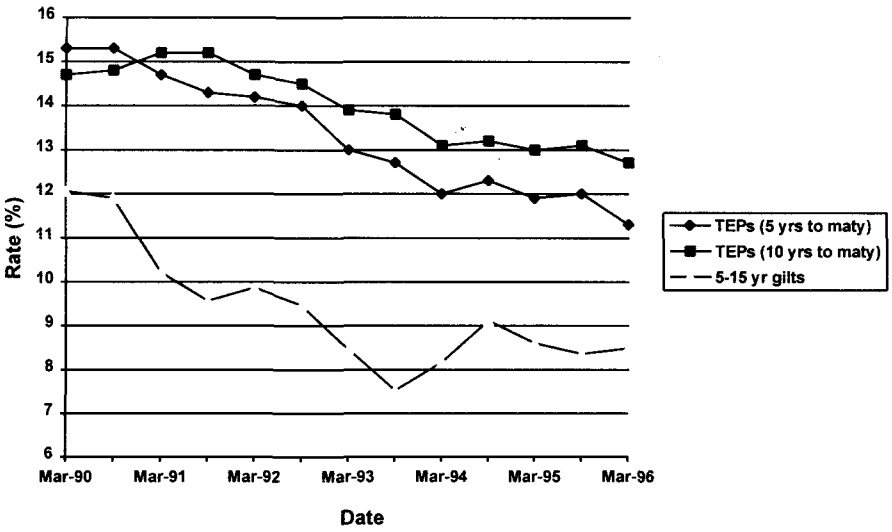
5. FACTORS INFLUENCING AVERAGE DISCOUNT RATES

5.1 *General Investment Conditions*

5.1.1 These will influence the TEP market as a whole. TEPs will be compared with other investments by potential investors. A TEP might be regarded by a potential investor as a form of single premium bond with a negative coupon (the premiums) and a variable maturity payment with a substantial guaranteed element (basic sum assured and attaching bonuses), and a non-guaranteed element protected, to some extent, from the fluctuations of the underlying investment markets. An investor might, therefore, compare the TEP with a low-coupon gilt of similar maturity date or zero-coupon preference shares. Unless the investor (or his adviser) were convinced that bonus rates were set to increase, he would demand a premium over the fixed-interest rate to compensate for the risk of future bonus cuts.

5.1.2 The above analysis suggests that the general level of the TEP market is influenced by yields available in the fixed-interest market and the expectation of future bonuses. The difference between ADRs and fixed-interest yields has stayed high in the 1990s, as the general expectation through this period was for bonuses to be cut in response to the expectation of the continuation of a lower inflation environment.

5.1.3 A comparison between market ADRs on TEPs and gilt yields is shown, in Figure 5, for the period 1990-96.



Source: Policy Plus International

Figure 5. Average discount rates on TEPs vs. gilt yields, 1990-96

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

5.1.4 The discounting of an estimated maturity value might be described as a prospective method of valuing a policy. This is the method chosen by the market, as it is reasonably objective and easy to explain. Another approach, a retrospective method, might be to estimate the value of the underlying 'pot' of assets backing the policy — the asset share — and base the valuation on this. The rationale for this is that the life office's Appointed Actuary would recommend terminal bonus rates which related maturity values to a smoothed asset share. The higher the asset share relative to the surrender value at purchase, the more valuable the traded policy will be. Few private investors or their advisers would be in a position to attempt this calculation.

5.1.5 The regarding of the policy as an underlying pot of assets might lead to the conclusion that values should fluctuate with the equity market. This is, to some extent, true, but tends to come through as a reaction to expected changes in terminal bonus rates, rather than in any way mirroring short-term stock market fluctuations.

5.2 *Life Industry Factors*

There are factors which affect the life industry as a whole, and are expected to influence the prospective returns under TEPs and the demand for them. The most significant are the announced and prospective policyholder benefits accruing from the restructuring of the industry in the form of demutualisations, take-overs, distribution of 'orphan assets', etc. This has undoubtedly fuelled interest for the TEP market in general.

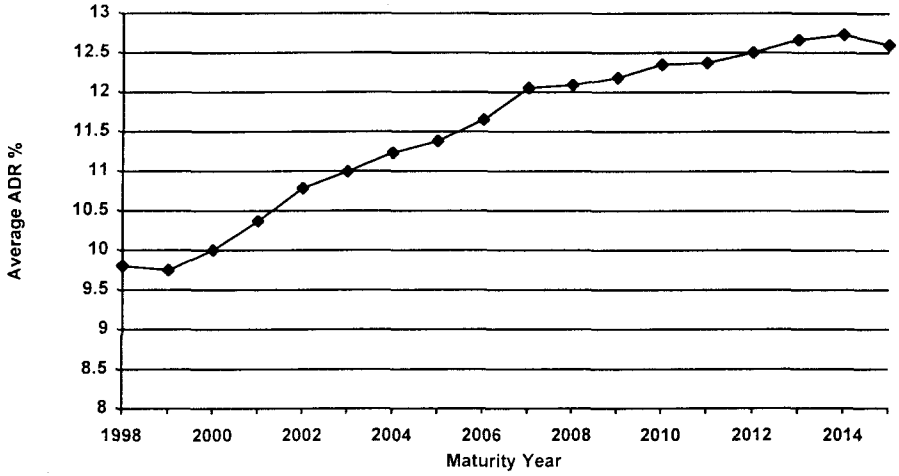
5.3 *Outstanding Term*

5.3.1 Of the factors specific to individual policies, the most significant influence on ADRs has been, and remains, the outstanding term to maturity. The ADRs in the market increase with outstanding term. This reflects the demand from investors for policies closer to maturity, the greater uncertainty of more distant bonus declarations and the normal shape of the yield curve for fixed-interest investments.

5.3.2 Figure 6 shows the average ADRs for each year of maturity for all policies appearing on the stock lists of three leading market makers at 30 June 1997. Use of the outstanding term to differentiate between ADRs on individual policies is universal in the market. Some market makers appear to use other criteria to a very limited extent to differentiate policies.

5.4 *Life Office*

5.4.1 It might appear surprising that ADRs do not vary greatly between life offices for policies having the same outstanding term. When selecting an office with whom to take out a new policy, one might look, first and foremost, for a consistently good performance in the maturity value league tables. This approach does not necessarily work for a second-hand policy. The FMV will already allow for performance to date by including an element of attaching reversionary



Source: Beale Dobie, Policy Portfolio, Securitised Endowment Contracts stock lists

Figure 6. Average ADR (%) by maturity year

bonuses. It will also use current bonus rates to project the remainder of the FMV. Thus, other things being equal, you will have to pay more for a policy from a strong-performing office.

5.4.2 The decision for an investor is how the bonus rates for a particular office are likely to move in future. ADRs should be higher for the offices where prospects are worst. In practice the market shows little evidence of making such judgements. ADRs show little variation between offices, and, where they do vary, tend to be down to factors such as how well known the office is and the prospects of windfall distributions.

5.5 *Composition of Maturity Value*

5.5.1 The FMV is made up of a number of elements, giving each policy a different risk profile. These elements are:

— sum assured and attaching reversionary bonuses;
— future reversionary bonuses; and
— future terminal bonus.

5.5.2 Sums assured and attaching bonuses are guaranteed by the life offices. They represent the downside protection on the policy, and on some policies may exceed the purchase price of the policy and offer a guaranteed positive return, even when future premiums are taken into account.

5.5.3 Future reversionary and terminal bonuses are not guaranteed, and depend on future investment conditions and life office policy. They are, therefore,

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

considerably riskier. Some offices, such as Commercial Union, are weighted towards a high dependence on reversionary bonuses, whilst others, Standard Life for example, are weighted towards terminal bonuses. Conventional wisdom is that terminal bonuses are considered to be more risky than future reversionary bonuses, as the latter would generally be set at a rate which the office expects to maintain. It should be noted, however, that some offices have made very deep cuts to their reversionary bonus rates over the past few years.

5.5.4 Market makers vary in how they build in the effect of the risk profile into their pricing. One approach taken is to project the various elements of the FMV and discount them at different rates, to reflect the variation in risk. The basic sum assured and attaching bonuses, being guaranteed, are valued at the lowest discount rate. The future reversionary bonus element of the FMV is typically valued at a higher rate to reflect the increased risk attaching to future declarations. The terminal bonus, having the highest perceived risk, is discounted at a higher rate still. A fourth rate might be chosen to value the future premiums. This would generally be lower than the rate applied to the projected benefits. This approach would only be used for internal pricing. A single ADR would be quoted to potential investors which related the resulting price to the total FMV. A more simplistic approach would be used by most market makers.

5.6 *Original Policy Term*

In recent years terminal bonus rates on policies with shorter terms have been more volatile than on policies with longer terms. Market makers might, therefore, use a slightly higher discount rate for policies with shorter original terms (e.g. 10 years) than policies with longer original terms (e.g. 25 years).

5.7 *Tax Treatment*

The tax treatment of a TEP in the hands of an investor depends on whether the policy is qualifying or non-qualifying. A qualifying policy will be subject to capital gains tax in the hands of a U.K. private investor. A non-qualifying policy will be subject to income tax on a top-slicing basis. The latter may be less suited to higher-rate tax payers who make up the bulk of the private investors. Hence non-qualifying policies may sell on slightly higher discount rates.

5.8 *Premium Level*

Policies which require a lower level of ongoing premium payments as a proportion of purchase price are more attractive to investors than policies with higher future premiums. This can be automatically built in to pricing if the multiple-discount rate approach is used. Otherwise, a small increase in discount rates may be used for high premium policies. Such policies commonly arise from the practice of market makers to shorten the term of a policy between purchase and resale.

5.9 *Supply and Demand*

The market is, like other markets, subject to supply and demand. In particular, the demand created by substantial press coverage, maturing TESSAs and windfall gain prospects has combined with a limited supply to drive up prices substantially since the early part of 1996.

6. WHICH POLICIES ARE TRADED?

6.1 Many of the policies which are offered to the market by sellers are not actually tradable. The industry is attempting to reduce its costs by reducing the number of unsuitable policies presented to it in the first place. Measures taken include supplying IFAs with computer programs to assess the saleability of policies and automatically generate quotation requests.

6.2 Criteria are generally similar from market maker to market maker, but may vary on some points. The following would be reasonably typical of current trading criteria:

— Only conventional with-profits policies are accepted, no unit-linked or unitised with-profits policies are traded.
— Policies must have been in force for a minimum period, typically 5-7 years.
— Policies must be of a minimum size. This is usually measured by surrender value, with a minimum of £1,000-£2,000 being applied.
— The policies of some life offices will not be tradable if the maturity date is beyond a certain limit. This limit normally depends on the office's practice with regard to shortening the term of its policies.
— Policies from some of the smaller life offices and friendly societies may not be acceptable.

7. POLICY AUCTIONS

7.1 *Saleroom Auctions*

7.1.1 Only one firm, Foster & Cranfield, operates traditional saleroom auctions. Auctions are generally held weekly, approximately half being held in London and the remainder in a number of other locations.

7.1.2 The process involves the prospective vendor or his professional adviser supplying the information required for the auctioneer to estimate the value of the policy. This information is a copy of the policy schedule, a copy of the latest bonus notice and a copy of the current surrender value quotation from the insurer. The auctioneer then provides an estimate of the policy's value, using the valuation techniques described earlier in the paper, based on a market discount rate. The estimate is usually given in the form of a range, together with a suggested reserve price at the lower end of the range. If the vendor decides to proceed, reserve instructions will be required. Draft sale particulars will be prepared for the vendor's (or his adviser's) approval before inclusion in the

Lot 44
An Endowment Assurance for **£14,420.00 (with-profits)**
Effected 28th May 1986 with the
STANDARD LIFE ASSURANCE COMPANY

Payable 28th May 2008 or earlier death of a Gentleman now aged 49 or a Lady now aged 48. **Bonus additions £7,691.00 to 15th November 1995.** (3.50 per cent on the sum assured and 4.75 per cent on attaching bonuses was declared for the year ending 15th November 1995. The interim bonus rate for 1996 is 3.25 per cent and 4.50 per cent respectively.) **Premium £69.60** payable on 28th of each month. **Surrender Value £11,155.00 approximately**. On the maturity at the present time of endowment assurances in force for 22 years this Company is currently paying a Terminal Bonus equal to 108 per cent of Sum Assured and attaching Reversionary Bonuses.

Reproduced by permission of Foster & Cranfield

Figure 7. Example of auction catalogue details

auction catalogue. The catalogue will be distributed to parties on the auctioneer's mailing list in advance of the sale. An example of the details given for a policy in the catalogue is shown in Figure 7.

7.1.3 Lots are auctioned in the saleroom, subject to competitive bidding in the usual manner. If a final bid is received which exceeds the reserve price, the successful bidder is required to pay a 10% deposit and sign a binding contract pending completion. The purchaser is required to arrange and pay for the legal work involved in transferring the title. The work would typically cost in the region of £100 plus VAT. When the legal work has been carried out satisfactorily, completion takes place and the balance of the purchase price is paid. Conditions of sale require the purchaser to complete within 28 days, subject to forfeiture of the deposit or the application of a punitive interest rate on outstanding monies.

7.1.4 Vendors pay commission to the auctioneer, which is currently one third of the difference between the sale price and the surrender value. Intermediaries introducing vendors would generally receive a third of the auctioneer's commission as their own commission.

7.2 *Other Auction Methods*

Other firms conduct policy auctions using other methods, including postal/fax auctions and electronic auctions using the Internet. Volumes traded are not believed to be large.

8. MARKET MAKING

8.1 *Background*

8.1.1 Since the first market marker commenced business in 1989, many more have appeared on the scene, although the number of new entrants has reduced in the past couple of years. Market makers can be sub-divided into two categories, those who deal via intermediaries and those who, additionally, deal directly with members of the public. The latter are required to be regulated under the FSA, the former are not so required. There are also other organisations competing to purchase policies that do not then offer them for general sale, but pass them directly to private investors.

8.1.2 At any one time, there may be up to 20 firms in the market to purchase policies. They all vary, to some extent, in the way that they conduct their business. The following is, therefore, only a general outline of the way that they operate.

8.2 *Purchasing Policies*

8.2.1 The main challenge facing market makers is obtaining a supply of policies to meet demand. A substantial proportion of most market makers' costs relate to advertising and other marketing expenses in this area.

8.2.2 The first stage in acquiring a policy is to obtain the relevant policy details. This process can be time consuming, particularly when dealing directly with members of the public who may not be familiar with their policy documentation. The information needs validating. A large proportion of enquiries will not result in a purchase. The policy may not be tradable (e.g. because it has not been in force long enough), a better offer may be received from elsewhere, or the policyholder might decide to keep the policy. The market maker may have in-house software to assist in the validation process, and, in at least one case, supplies software to intermediaries to enable them to screen out unsuitable policies and provide the market maker with information which has undergone some validation.

8.3 *Pricing for Purchases*

8.3.1 The market maker will have a clear idea of the price at which he can sell the policy to an investor. He will also know the amount of commission that he will have to pay any intermediary involved in the purchase of the policy and the subsequent resale, although he will not necessarily know whether an intermediary will be involved in the resale. In his offer price he must also make allowance for his own legal and administrative costs of taking the policy onto his books and other overheads of his business. The balance of the difference between purchase and sale price will be his trading profit (ignoring any financing costs and change in valuation while the policy is on his books). The price that a market maker offers may, to an extent, depend on his perception of the seller's negotiating position. A seller who is known to have obtained a number of competitive quotes might well receive a better offer than someone not known to

be in that position. From anecdotal evidence, it appears that an average market maker's 'turn' might currently be of the order of some 6-8% of the sale price. It may be significantly higher in a non-competitive situation. The 'turn' tends to be lower on the shorter maturity dates. This is required to meet the market maker's own costs, as well as profit. Commissions would account for the remainder of the difference between purchase and resale prices.

8.3.2 The market maker is exposed to some risk in taking on the policy, not least that bonus rates may change adversely between purchase and resale.

8.4 *Policy 'Engineering'*

8.4.1 It is common practice to 'engineer' the policies of certain life offices. This is market parlance for shortening the term of policies. This is done for two main reasons:

— Shorter-term policies are more attractive to investors — a policy maturing in 5 years time is of more interest than one maturing in 12 years time.
— The pricing method of discounting an estimated maturity value based on current bonus rates often results in a higher price based on the reduced term.

8.4.2 Offices vary in their approach to alteration. Some will not reduce terms, some will reduce terms only while the policy remains qualifying (i.e. has 10 years or more to run from the date of alteration), and others will permit reductions to maturity dates 5 years after alteration. In the latter case this will usually make the policy non-qualifying, and offices will generally allow this to be done on traded policies only.

8.4.3 In pricing a policy for purchase, market makers will take account of the terms on which the term of the policy can be altered (which may involve obtaining a quote from the office concerned). If the policy is successfully purchased, the market maker will effect the necessary alteration before resale.

8.5 *Legal Checks*

8.5.1 Before acquiring a policy, the market maker must first conduct a series of legal checks to establish that the policy is as represented and that the vendor has good title. This would typically include a bankruptcy search. This process is time-consuming and may take several weeks, or, in the worst cases, several months. Similar checks are required on auctioned policies.

8.5.2 At completion, the policyholder receives the payment, any commission due to an intermediary is paid and a Notice of Absolute Assignment is sent to the life office to assign the policy into the market maker's name.

8.6 *Financing*

8.6.1 A market maker may have many policies on its books awaiting resale. Although the policyholder will be effectively financing the policies until the purchase price is paid, the market maker must still finance the policies until

resale. This is generally done in the greater part by a bank arrangement, using the policies themselves as security.

8.6.2 The market maker must also arrange for premiums to be paid on the policies between purchase and resale. The policies, assuming market discount rates and bonus rates do not change, would increase in value between purchase and subsequent resale to offset premium payments and financing costs.

8.7 *Policy Sales*

8.7.1 Many policies do not reach the retail sales lists prepared by market makers. They are sold directly to funds and other investors who have indicated to the market maker the type of policies that they require and their purchase criteria. Policies that do reach the retail lists have their details circulated on two types of list: one for the private investors and one for intermediaries and professional investors. The information provided is similar on each type, but the information given to private investors does not include a formula maturity value.

8.7.2 An example of part of a (fictitious) market maker's list for other than private investors is shown in Figure 8. The example is shown to give an indication of a typical layout. In practice the list would be much longer.

8.7.3 The investor, with the help of his adviser if appropriate, will select an appropriate policy from the list. Due to the strong demand, it is common for policies to have been reserved by another investor, particularly if the list is not new. In such circumstances the market maker might recommend a similar available policy, or note the investor's requirements and reserve a future incoming policy

8.7.4 When a suitable policy has been found, the investor can usually reserve the policy on the telephone and then submit an order form and payment to the market maker. The market maker will then issue a contract note, and, following clearance of monies, can forward to the policyholder the original policy document, previous deeds of assignment and clearances, a Deed of Absolute Assignment to the purchaser and documentation relating to the continuation of premiums by the investor.

9. ASSESSING A TEP

9.1 *Background*

9.1.1 For a new policy, the assessment of which office's with-profits contract to select would usually be based, primarily, on consistent performance in maturity payout tables, with the financial strength of the office as a further consideration. Service standards, the effect of charges and early surrender value levels would also be factors considered.

9.1.2 The assessment of a TEP is less straightforward. It cannot be assumed that a good performance record, measured by maturity values, will mean that a TEP from that office will represent good value. Value will depend on the price

XYZ ENDOWMENTS LIMITED

XYZ Mansions
Veranda Street
London SE3 3QP
Tel: 0181 365 1234
Fax: 0181 365 5678

Regulated by the Personal Investment Authority

Stock list: 12 Valuation date: 25/09/1996.

XYZ ref	Life Office	Term (years)	Maturity date	Approx SV	Basic Sum Assured	Attaching Bonuses	Premium Amount	Premium Freq.	Total premiums to maturity	FMV	Terminal Bonus %	ADR %	Price
				£	£	£	£		£	£			£
1359	Standard Life	25	16/08/97	21,429	3,696	7,147	16.00	M	151	27,915	58.0	10.00	25,527
1432	Friends Provident	13	04/12/00	4,923	3,273	4,456	62.00	M	3,081	13,938	35.3	10.50	9,700 N
1357	Norwich Union	A 18	01/02/02	6,503	6,755	4,696	71.07	M	4,477	22,854	21.6	11.25	9,623 N
1237	Royal Life	21	24/05/04	7,766	6,777	5,922	33.64	M	3,061	29,735	39.9	11.40	10,958

The notes below refer to all policies:

1. The Formula Maturity Value (FMV) is calculated by XYZ to provide a consistent figure to discount back to a present market price. IT IS NOT A FORECAST. It has been calculated using current bonus rates for policies of the same original term. Where bonus rates are not available or there is an unconventional bonus structure then recent maturity results have been used. The **actual** maturity value will depend on future bonus rates. Past performance is not necessarily a guide to the future. Bonus rates may go down as well as up.

2. The Terminal Bonus Percentage is the proportion of the Formula Maturity Value represented by the terminal bonus element.

3. The ADR is the Average Discount Rate - the rate at which the Formula Maturity Value and future premiums have been discounted to calculate the price. IT IS NOT A FORECAST OF INVESTMENT YIELD.

4. The Premium Frequency may be Monthly (M), Quarterly (Q) or Annual (A).

5. Capital gains tax (after indexation) may be payable on TEPs by UK residents. TEPs marked with an N are non-qualifying under current UK tax legislation.

6. TEPs with an amended Term are marked with an A.

Figure 8

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

paid. This will, in turn, depend on the formula maturity value (FMV) and the average discount rate (ADR). Since the former is an estimate based on current bonus rates, then, generally speaking, good performance will be reflected in a higher price. A TEP from a poor-performing office may still represent better value than one from a good-performing office if the former is sold on a higher ADR or has better prospects regarding future bonus rates relative to current ones.

9.1.3 For most informed purchasers, the process of selection involves matching the investor's needs with regard to policy characteristics and risk. A life office might be chosen on the basis of financial strength, as reported in the trade press from time to time (or simply on the basis of being a household name). Finally, the purchaser would seek an ADR that represented good value with regard to the market as a whole.

9.1.4 Institutional and other large investors with access to specialist, primarily actuarial, advice would generally attempt a more thorough analysis of policies, focusing on specific life office factors and usually involving an estimation of asset share on a particular policy as a means of assessing relative value.

9.2 *Investor Needs*

Investors would firstly seek policies which met their needs with regards to the following:

— maturity date;
— purchase price;
— ongoing premium commitment; and
— tax treatment (qualifying or non-qualifying?).

9.3 *Risk Profile*

9.3.1 TEPs vary significantly in the degree of risk attaching to the final return. This manifests itself in how the various components of the FMV compare with the purchase price and future premium commitment.

9.3.2 *'Locked-in value'*

One measure of risk is the 'locked-in value'. This consists of the sum assured and bonuses attaching at the date of purchase. Ignoring the small risk of the life office defaulting, this amount is guaranteed. It is possible to purchase TEPs where the locked-in value exceeds the purchase price plus future premiums, and therefore offers a guaranteed positive return.

9.3.3 *Bonus rate sensitivity tables*

These tables examine the sensitivity of the rate of return on a TEP to the future level of bonus declarations. The starting point would be the ADR, which represents the pre-tax return on the policy if current bonus rates are maintained. An example of what one might look like is shown in Table 2. Such tables are useful in assessing the risk attaching to movements in future bonuses, but would

Table 2. Sensitivity of rate of return to changes in bonus rates

		Change in reversionary bonus rates				
		+10%	0%	−10%	−20%	−30%
Change in terminal bonus rates	+10%	12.9	12.4	11.8	11.3	11.0
	0%	12.2	11.6	11.1	10.6	10.3
	−10%	11.4	10.8	10.3	9.8	9.5
	−20%	10.5	10.0	9.5	8.9	8.7
	−30%	10.1	9.6	9.0	8.5	8.3

not be supplied on a personalised basis by all market makers. Where personalised tables are not supplied, a table for a specimen policy may be given in the marketing literature of market makers.

9.3.4 *Differential discount rates*

The use of different discount rates to apply to the various elements (sum assured plus attaching bonuses, future reversionary bonuses, future terminal bonuses, premiums) making up the return on the policy was described in ¶5.5.4. This method may be used by the more sophisticated investor to assess a policy for purchase, but would be too complex for most private investors and IFAs to contemplate.

9.4 *Average Discount Rate (ADR)*

This is the rate of return, assuming that current bonus rates are maintained to maturity. Whilst it may be misleading if taken as a projection, it is undoubtedly of use in assessing quickly whether the policy is priced reasonably relative to the market for TEPs. A market maker's retail list would contain this information, and an investor can readily compare how any prospective purchase compares with other policies on the market. This would not be the case for a purchase at public auction. Examination of auction results indicates that there are occasionally policies purchased for sums which are significantly out of line with the TEP market as a whole.

9.5 *Life Office Factors*

9.5.1 A key point to consider when assessing a TEP is the prospect for future bonus rates. It is not realistic to assume that the prospects for each office are the same. The judgement of the prospects of different offices is necessarily subjective, and the factors that might be looked at are similar to those affecting the selection of a life office for a new endowment. The following factors might be considered.

9.5.2 *Free asset (Form 9) ratios*

The deficiencies of these ratios in isolation have been documented elsewhere on numerous occasions. However, they would be considered in the light of, amongst other things, the strength of the office's valuation basis and the proportion of with-profits business.

9.5.3 *Asset sector distribution*

The distribution of the investments of the with-profits fund by asset sector would be of interest to the potential investor, where a higher equity exposure would generally be preferred.

9.5.4 *Measures of bonus rate sustainability*

One method is to calculate the maturity values for hypothetical policies commencing at the present day, based on current bonus rates. This enables rates of return to be calculated. Higher implied rates of return might indicate that the rates will be more difficult to sustain in future.

9.5.5 *Special opportunities*

Interest in the TEP market has been fuelled by the possibility of windfall gains arising from demutualisations, takeovers and distribution of orphan assets. Investors will take into account any public statements by offices (e.g. the statement on 2 October 1996 by Norwich Union). Such possibilities make an already difficult investment decision even more subjective. For example, is an office with a weak solvency position (and therefore, other things being equal, less attractive) more likely to be taken over by a stronger office, with a payment to its policyholders? It cannot be assumed that purchasers of TEPs would automatically benefit from any such distributions. This would depend on the office's constitution, with particular regard to membership rights in mutual offices.

9.6 *Surrender Value*

The proportion of the purchase price represented by the latest surrender value is also a factor. Although surrender values are not guaranteed, an investor would feel more comfortable if the price paid were closer to the life office's own 'valuation' of the policy. This would also affect an investor's ability to use the policy as collateral for a loan, where maximum advances are usually expressed as a proportion of the current surrender value.

9.7 *Asset Shares*

9.7.1 Although the above factors are useful, they do not, either in isolation or in combination, provide a direct answer to the question as to whether the price paid is a fair one. Ideally, we would like to obtain some measure of inherent value with which to compare the price. The concept of asset shares has been dealt with in other actuarial papers in some depth, most recently by Needleman & Roff (1995). However, a brief summary might be useful.

9.7.2 An asset share is a measure of the underlying value of the policy, arrived at by accumulating the premiums paid at the rate of return earned on the assets of the with-profits fund. The accumulation is net of charges such as expenses, mortality costs, tax and, for proprietary offices, shareholder distributions. There is some variation between offices in the way that asset shares are calculated, in particular with regard to the way that some sources of profit to

the with-profits fund are dealt with. These miscellaneous profit sources include profits from non-profit business and the effect of paying out surrender values which may be significantly below asset share.

9.7.3 Asset shares are used by offices in the setting of bonus rates. Reversionary bonuses are generally added at rates which the office's actuary believes can be sustainable in the future. Terminal bonuses are set such that the total return on a maturing policy reflects the estimated asset share of the policy. In order to introduce the smoothing of returns which distinguishes a with-profits policy from a unit-linked policy, the terminal bonus rates are set to reflect a smoothed asset share. The method of smoothing varies from office to office.

9.7.4 Current terminal bonus rates are, therefore, based on past reversionary bonus declarations and past investment performance. There is no implication that they are set at rates which the office expects to be able to maintain in future. A method of assessment which involves accumulating current bonus rates is, therefore, flawed, particularly in relation to the terminal bonus element. The degree to which current bonus rates, used to price a TEP, are sustainable will vary, not only from office to office, but from policy to policy.

9.7.5 There is also a suspicion that, for marketing reasons, some offices may be declaring bonus rates which exceed those justified by asset share calculations. This can be a particular temptation when volumes of maturing policies are low and the costs of over-declaration are small.

9.7.6 Asset share calculations are also used to assist in other areas of life office financial management. In particular, an office might look at them when reviewing surrender value bases, and should be aware of how surrender values compare with asset shares from time to time.

9.8 *Estimating Asset Share on a TEP*

9.8.1 If asset shares are used by life offices to set their final maturity payments, and would be the office's own internal measure of the intrinsic value of a policy, then it seems that an estimate of the asset share on a TEP would be a more suitable basis for assessing the value of the policy. Unfortunately, offices do not provide details of their asset share calculations. With-profits guides will contain some limited general information on how they are calculated and used in determining bonus policy. This will, generally, be similar to the descriptions given in the previous section.

9.8.2 Some actuaries have attempted to estimate asset shares on policies from specific offices by using information on expenses and investment returns from DTI returns. This is laborious, involving going back many years, and must involve some fairly crude assumptions. In addition, there are differences in the way that offices calculate asset shares which are not published information, e.g. the treatment of miscellaneous profit items.

9.8.3 A simpler method is to use the maturity values payable on currently maturing policies as a basis for estimating asset shares. For example, the asset share on a 25-year policy that has run for 20 years should be similar to that on

a 20-year policy for the same premium commencing at the same time. Rates of return on investments would be similar (although some offices may hypothecate a different mix of assets to policies each year depending on proximity to maturity) and renewal expenses would be identical. Commissions and mortality costs would differ, being somewhat higher on the policy with the longer term. Offices might also load some non-commission initial expenses in proportion to commission and reflect this in their asset share calculations.

9.8.4 There are a number of ways of making the approximation, but one method uses the approximate relationship (which works reasonably well for most, but not all, offices):

$$\frac{SA}{n} \approx \text{annualised premium} \times k$$

where n is the term of the endowment and k is of the order of 0.9.

9.8.5 The asset share of an endowment t years into its term n is approximated by:

$$\frac{t}{n} \times ((SA \times (1 + TBSA_t) + (ARB \times (1 + TBRB_t))$$

where:

SA	=	basic sum assured
ARB	=	attaching reversionary bonus
$TBSA_t$	=	terminal bonus rate as proportion of sum assured for maturing policy of term t years
$TBRB_t$	=	terminal bonus rate as proportion of attaching reversionary bonuses for maturing policy of term t years.

9.8.6 An interpolation needs to be made for non-integral values of t. The method needs to be modified for offices whose pricing cannot be carried out by reference to current bonus rates. The method also needs modification in respect of altered policies, where the policy details need to be those applying immediately prior to alteration.

9.8.7 In general, one would expect the method to overstate the asset share because of the differing initial expenses on the mid-term and matured policy, and a further adjustment might be made to reflect this.

9.9 *Other Methods based on Estimated Asset Shares*

Some practitioners use methods which use the estimated asset share as a starting point, and then project the maturity value of the TEP using rates of return which depend on the current published asset distribution, by sector, of the with-profits fund. A higher rate of return would be assumed on equities than on fixed interest for this purpose. Future premiums and expenses would be allowed for.

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

The maturity value is then discounted back to arrive at a maximum price. This method aims to quantify the effect of asset allocation on the future return, as well as the effect of the current asset share.

9.10 *In Summary*

No valuation method is ideal. All must contain a number of sweeping assumptions. Such methods do, however, offer some protection against acquiring a policy which is significantly overvalued by the market pricing approach. A number of variations on the methods are used, and these might be supplemented by visits made to life offices by the advisers to investors.

10. Regulatory Issues

10.1 *General*

Regulation of the market consists of the statutory regulation under the Financial Services Act plus the voluntary regulation provided by the trade associations in the market place. Any regulation should seek to protect the interests of both buyers and sellers of TEPs.

10.2 *FSA Regulation*

In February 1992, a FIMBRA briefing note stated that those dealing directly with the public must be authorised under the FSA via FIMBRA or SIB. The larger market makers and auctioneers are now regulated by the PIA. Some of the smaller market makers have opted to remain outside FSA regulation by dealing only via IFAs and excluding direct dealing.

10.3 *Voluntary Regulation*

10.3.1 *The Association of Policy Market Makers (APMM)*

The APMM was established in April 1992 with the intention to "initiate and maintain the best professional standards for dealing with the public and their financial advisers". Its stated objectives are:

(1) to establish and maintain an orderly market in traded endowment policies — TEPs;
(2) to provide objective information to financial advisers and the public so that they can assess the different policies and the factors affecting their pricing and evaluate their investment potential;
(3) to develop a working relationship with the life offices and to ensure effective information flows on key data such as bonus rates and surrender values, and to help minimise their administration;
(4) to increase awareness and understanding of the market in TEPs;
(5) to act as a focus and voice for the market; and
(6) to ensure the highest professional standards are maintained by members.

Members are required to conform to a code of practice governing the conduct of their business. In particular, all members must be regulated by the FSA.

10.3.2 *The Association of Policy Traders (APT)*

This organisation covers some of the smaller market makers. Unlike APMM, it does not insist that its members are regulated under the FSA.

10.4 *Sellers*

10.4.1 The principal needs of sellers, including potential sellers who are considering surrendering their policies are:

— they are aware of the market as an alternative to surrender;
— they obtain the best price;
— the process of transferring ownership is carried out swiftly, and they receive their money quickly; and
— the buyers do not get into financial difficulties before they receive their money.

10.4.2 *Awareness*

Market awareness is not high, but is growing. There is no regulatory requirement for life offices to inform policyholders who approach them for a surrender quotation of the market's existence. This issue is discussed more fully in Section 12. The position regarding IFAs is clear. In March 1993 FIMBRA issued Note No. 7, which has subsequently been adopted by the PIA as Note F7, Appendix F6 of its rule book. This states:

> "when a Member is asked to arrange surrender of a with-profits endowment policy it should advise the client, where appropriate, that it may be possible to obtain a higher cash value through the second-hand market."

10.4.3 *Obtaining the best price*

A policy seller approaching an IFA expects that IFA to use reasonable endeavours to obtain the best price. FSA regulation also requires this. To achieve the very best price might involve contacting, maybe, 20 different organisations — a great deal of effort. Using a trawler cuts down on the effort, but not all market makers deal with trawlers. There is also the auction alternative to consider. It is interesting to speculate what might be considered an acceptable degree of effort in this area. A market maker approached directly by a seller would be acting in an 'execution only' capacity, and would not be obliged to advise of other market players who might pay a higher price.

10.4.4 *Speed of service*

The APMM addresses the issue in its code of practice, and requires its members to complete the necessary legal processes 'as quickly as reasonably practical', and to make payment within 5 working days of completion of this process.

10.4.5 *Financial supervision of traders*

Traders regulated by the PIA are required to be Category 1 members, which imposes requirements of financial reporting, maintenance of solvency levels and indemnity cover.

10.5 *Investors*

10.5.1 The principal needs of investors or potential investors in a TEP are:

— They are sold an investment of a type that best meets their needs.
— They are given sufficient information to understand and assess what they have purchased, or are considering purchasing, and the risks involved.
— The particular investment represents good value, both in itself and relative to other investments of that type.
— They are not encouraged to have unrealistic expectations.
— They obtain good title to the policy.
— The trader is not going to get into financial difficulties before the investor receives the policy.

10.5.2 *Suitability*

TEPs have some attractive points relative to other investments, and, assuming they are acquired at a favourable price, there is no reason to assume that they are not an investment which will meet the needs of the investors. Most investors will buy TEPs via an IFA, who will assess the general suitability relative to other products.

10.5.3 *Good title*

The APMM code of practice requires:

— Any policy offered for sale should be owned, or contracted to be owned, by the member, unless otherwise stated.
— Members will ensure that all prudent checks and searches are carried out, and will disclose all material matters of which they become aware.
— Upon completion of any sale, documentary evidence will be made available to enable purchasers to satisfy themselves that good title is being conveyed to them.

10.5.4 *Financial supervision*

This was discussed under the issues for sellers above.

10.6 *Investor Information*

10.6.1 The information given to financial advisers comes from the list of the market maker. An example was shown in Section 7. The key figures given are the FMV based on current rates and the ADR. The information given on a retail list supplied directly to private investors is similar, but no FMV is quoted. Instead, they would usually be given the current rates of reversionary and terminal bonus applicable. Some market makers do still, I believe, quote FMVs

to private investors for policies with less than five years to run. The giving of an FMV to private investors, based on current bonus rates in cases with less than five years to run, is a throwback to the old LAUTRO rules on projections.

10.6.2 Life offices, themselves, must now provide maturity projections for new and existing business, based on rates of return of 5% and 10% before charges. They are not permitted to provide projections based on existing bonus rates. Section F29.8.3 of the adopted FIMBRA rules in the PIA rule book states:

> "You must not publish or provide to a client, for a life policy...any projection of benefits unless it is a projection...which complies with the requirements of the applicable Adopted Lautro Rules".

10.6.3 This does not appear to distinguish between a new policy, an existing policy (with its original owner) or a TEP. I understand that TEP market makers are operating within a system that has been approved and agreed by their regulator (currently the PIA). This approval predated the change to LAUTRO rules, which introduced the current life product projection basis. I am not aware of any market maker receiving an official objection from the regulator to the quoting of FMVs to private investors for policies with less than five years to maturity, although some market makers have, of their own volition, now ceased to provide this information.

10.6.4 In situations where only the ADR is quoted, I believe that this could also be interpreted as effectively providing a projection, it being the rate of return on the TEP if the current bonus rates are maintained. It certainly seems easier to explain to the layman in these terms, rather than as a discount rate. The above information is supplied with attaching notes, which explain that the figures quoted are there as an aid to arriving at a price, and should not be interpreted as a forecast. There would also be statements relating to "bonus rates going down as well as up" and that "past performance is not a guide to the future".

10.6.5 The information supplied might be sufficient to enable someone to gauge whether the policy is priced reasonably with respect to the market. It does not, I believe, enable a reasonable judgement of the inherent worth of a policy to be made, nor a comparison between policies. This is due to the deficiencies in the pricing basis.

10.6.6 *Reasonable expectations?*

Life offices are prevented from providing projections based on current bonus rates or past performance, in order to avoid giving unreasonable expectations to policyholders. It is felt that, even with warnings about the past not being taken as a guide to the future and bonus rates going down as well as up, clients would interpret the projections as a 'best guess' of future performance. The marketing literature of the TEP industry generally addresses the possibility of bonus rate cuts in some detail, but it is not difficult to imagine the thought processes of someone seeing ADRs which may currently exceed 12%.

10.6.7 In the current low-inflation environment, it is highly unlikely that life

offices would expect to earn such high future returns on the underlying assets backing the policy. To make the projections realistic, TEPs would have to sell at a large discount to the asset share. This would not appear to be the case for many policies currently traded.

10.6.8 It is inequitable that investors who may wish to compare the relative merits of TEPs and with-profits bonds receive projections based on 5% p.a. and 10% p.a. growth before charges from the life offices, whereas the main figure they receive when considering a TEP is a double-digit return after charges.

11. Issues for the Actuarial Profession

11.1 *General*

The key issues to be addressed, to which the actuarial profession is uniquely placed to make significant contributions, are the methods used to value TEPs and the information that is given to potential investors. These issues are obviously related. The question of whether a TEP represents good value to a potential purchaser is not a simple one to answer, based on the information currently available.

11.2 *What is Good Value?*

11.2.1 All investments have their own characteristics of reward vs risk. A reasonable approach to looking at the relative value offered by a TEP would be to compare it to a more conventional investment with similar characteristics. The properties commonly quoted as being the attractive features of TEPs are:

— They are written by secure financial institutions.
— They are invested in a broad range of underlying assets with, generally, a high equity content.
— Returns are smoothed to reduce risk.
— They contain a substantial guaranteed element at the time of purchase, that cannot be taken away.
— They provide attractive, relatively stable returns.
— They offer the prospect of windfall gains, if the life office concerned is involved in demutualisation, restructuring, etc.

11.2.2 All of these are also features of a single premium with-profits product (a 'with-profits bond') from a life office. This, therefore, seems the best investment to compare a TEP with. There are, of course, some differences. A TEP involves paying future premiums. This may, or may not, be regarded as an advantage. The tax treatment will also be somewhat different and the guarantees within the products will differ. The two investments are, though, essentially similar, and anyone considering purchasing one should consider whether they would be better off with the other.

11.2.3 The development of the comparison is helped if one thinks of a TEP

as a form of single premium with-profits bond. The latter usually carries an initial charge of some 5%, and may sometimes also carry an annual management charge. A TEP might be thought of as a with-profits bond where the investor does not know the charges. An investor acquiring a with-profits bond would, after the initial charge, acquire an asset share of some 95% of the investment. It is, therefore, not unreasonable to consider a TEP priced at in excess of the underlying asset share. The comparison of the effect of ongoing charges is more difficult, since it would depend on how the expenses charged against the TEP in an office's asset share calculations compared to any annual management charge or expenses charged against the bond's asset share. One could make a case that a TEP priced at 105% of the asset share might compare reasonably with a with-profits bond.

11.2.4 The above suggests that a knowledge of current asset shares on the TEP would be the most valuable pieces of information that could be supplied to a potential investor.

11.3 *What Asset Share?*

11.3.1 The concept of asset shares is now well-established in the management of with-profits business, but 'asset share' is not a precisely defined term. As well as differences in calculation methodology between different life offices, of perhaps more relevance to any debate on the role of asset shares in respect of TEP business are the various adjustments that might be applied to 'base' asset shares, to arrive at an adjusted asset share used to set an office's bonus rates or surrender value scales.

11.3.2 'Base assets shares' would generally be the accumulation of premiums, less expenses, mortality costs and any shareholder transfer, at the earned rate of return on the underlying investment, less an allowance for tax.

11.3.3 These might then be subject to further adjustment for miscellaneous sources of profit and miscellaneous charges, such as profits from non-profit business, surrender profits, charges for the use of capital, etc.

11.3.4 Finally, assets shares would be subject to some sort of smoothing to even out the effects of investment volatility.

11.3.5 Thus, a reference to 'asset share' may mean, depending on the use to which it is put, a base assets share, a base asset share adjusted for miscellaneous sources of surplus or a smoothed version of either.

11.3.6 One example of the use of different versions is in the setting of surrender value scales, where some offices might aim to approximate the surrender values to a base asset share, excluding miscellaneous profit items which are included in asset shares used to set maturity values.

11.3.7 TEPs are normally purchased with a view to holding to maturity, not surrendering to the life office at some time in the future. It, therefore, seems appropriate that the asset share that a potential purchaser would like to know is one which is consistent with the method used to set maturity values. It should, therefore, include any miscellaneous profit items used in this calculation. It

should also make some allowance for smoothing, particularly if close to the TEP's maturity date.

11.4 *Practical Difficulties*

Life offices do not, and are not required to, disclose asset share information to policyholders. Most would not currently maintain the systems to be able to readily provide this information for each individual policy on request. Only crude estimates of asset share, usually based on current maturity values, can currently be made by outsiders. One such method was discussed in Section 9.8.

11.5 *Are TEPs Good Value?*

11.5.1 This is a controversial area. The proponents of TEPs point to the returns available, on the assumption that current bonus rates are maintained, and the fact that these returns, in many cases, still remain attractive if the rates are cut substantially.

11.5.2 The main doubts as to the underlying value of TEPs were initially raised by some life offices. In particular, Standard Life, the office whose policies are most frequently traded, have been particularly active in voicing their concerns that investors may be paying too much for their policies. Their argument is that their surrender values are set to broadly reflect asset share, and, in themselves, represent a fair value of the underlying policy.

11.5.3 In Section 11.3 of McGurk (1996) I showed a table comparing estimated asset shares (using the method of Section 9.8) with the current market price for 6 policies taken from a (then) current market maker's list. I believe that the method will generally tend to overstate asset share. I believed the figures to be reasonably typical of the market at that time. This showed excesses of price over asset share ranging from 1% to 21%.

11.5.4 In the earlier paper I had also looked at Standard Life policies. Standard Life had stated that their surrender values represented a fair reflection of asset share, and have been outspoken for some years in questioning the prices paid for their policies on the TEP market. I had analysed the mark-up of price over surrender value, as stated on (the) current market makers list. The range of mark-ups varied between 10% and 45%, with an average of 32%.

11.5.5 I had concluded that:

— there were significant variations between policies traded from time to time in their underlying value relative to price paid;
— many policies appeared significantly overpriced in the market conditions prevailing at the time; and
— market prices had not always been so strong, and many investors had purchased investments offering good value relative to other investments.

11.5.6 I have revised the analyses outlined in ¶¶12.5.3 and 12.5.4 of McGurk (1996), and obtained similar results at various times since. These analyses are based on bonus declarations for 1996, made in 1997. Surrender value scales tend

not to be revised very frequently. Recent stock market gains may mean that asset shares have effectively increased beyond those that underlay the bonus declarations and surrender value scales. I believe that TEPs now represent generally better value than at the time of my earlier paper, but the problems of valuation still remain, and I believe that investors may still be paying too much for many of the policies traded.

11.5.7 At the end of the day, only the life offices are in a position to supply reliable asset share information to investors, either directly or as a starting point for maturity value projections.

11.6 *Recent Events*

11.6.1 Both SIB and the PIA are currently looking at aspects of the TEP market. SIB is looking at the market from the point of view of economic efficiency. The PIA is looking at the market with regard to the information supplied to investors.

11.6.2 In July 1997, the Faculty and the Institute of Actuaries wrote to the Chief Executive of the PIA highlighting the concern of the actuarial profession regarding the information currently supplied to potential investors. Their concerns centred around the information that might possibly lead to unreasonable expectations of the eventual returns from policies. The letter offered the services of the profession to assist the PIA in their review.

11.6.3 This was followed shortly afterwards by a press release stating that the Faculty and the Institute had written to the PIA and expressed these concerns. The press release mentioned the alternatives of the current ADR approach and an asset share approach, and stated that the latter "will tend to be more accurate than the ADR method". The press release concluded with a quote:

> "We are therefore urging the PIA, which is now undertaking a major review of the TEPs market, to improve the information given to investors. In our view this should include the PIA requiring potential purchasers to be given the official PIA policy projections, which are generally based on the current asset share and have regard to the offices' intended smoothing method".

11.6.4 The use of the PIA projections was opposed by the TEP market, on the grounds that offices varied in the approach they took to calculating projections on mid-term policies, and that those inconsistencies may only serve to confuse investors. In particular, it was believed that some offices did not use the asset share as a starting point for the projection, but some, usually lower, figure, such as the surrender value.

11.6.5 To assist the profession in advising the PIA, a survey of current practice on mid-term projections was sent to Appointed Actuaries on 28 August 1997. The main purpose of the summary was stated to be:

> "to determine how much, if at all, projected values differ from best estimates of the maturity value calculated on the assumption that the specified future return is earned on the backing investments and that bonus distribution practices, including smoothing, change only as much

as would be appropriate to reflect this whilst continuing to meet policyholders' reasonable expectations."

The survey also addressed issues such as the possible provision of asset share information to the TEP market.

11.6.6 At the time of drafting this paper, I understand that replies have been collated and reported to the PIA. Details have not yet been published, but I understand that, broadly speaking, the results show that approximately half of the offices surveyed used the current asset share (or an approximation to it) as the starting point for maturity projections. The remainder used a lower figure, such as the surrender value, as the starting point.

11.6.7 Representatives of the TEP market are believed to favour the mandatory use of a table showing sensitivity of policy returns to bonus rate changes as the main method of illustrating potential variations in returns. The table could be weighted towards showing the effect of bonus rate cuts as opposed to rises to illustrate the risks involved. An example of a similar table was shown in Table 2.

11.6.8 Such tables, whilst illustrating risk, do not give a useful guide to underlying value. It would appear that such information is best provided from within the life office itself. It seems unlikely that life offices will be persuaded or compelled to provide asset share information on policies. The way forward may be in the actuarial profession and the regulator co-operating to achieve greater consistency in the way that projections on mid-term policies are carried out within offices. In particular, this might seek to ensure that life offices use a best estimate of current asset share as a starting point for projections, and that such asset shares are calculated in a manner consistent with those used in the setting of maturity payouts. TEP investors could then, for example, receive projections of the rates of return that they would achieve on the basis of the standard investment return assumptions on the life office's underlying assets. This must surely have some influence on the prices paid in the market for a policy.

11.6.9 Such regime would take some time to achieve, both to produce the necessary guidance and/or rules and to implement within the offices' systems. If such projections were required, it would also place the TEP market in a position of dependancy on the life offices to produce the necessary figures.

12. Issues for Life Offices

12.1 *Administration*

12.1.1 The major administrative work will occur at the time of the transfer of ownership. Various confirmations will need to be supplied to enable the conveyancing stage to be completed satisfactorily. New premium paying arrangements will need to be established. In addition, many policies will have their terms shortened to be more attractive to the market.

12.1.2 It is usually more efficient if this process is carried out in a single area

where the necessary specialist knowledge can be concentrated. A number of offices have established specialist teams to deal with the TEP market. Some offices will make a charge to market makers in respect of supplying information and making policy alterations.

12.2 *Treatment of Surrendering Policyholders*

12.2.1 This is the most controversial area. It is clearly in the interests of surrendering policyholders to be made aware of the fact that the TEP market exists. Are offices betraying the interests of their customers by not allowing them the opportunity to obtain a better price elsewhere?

12.2.2 Awareness of the TEP market is growing, but is still estimated to capture only 25% of tradable policies. The 'big breakthrough' would come if offices were persuaded to inform all policyholders, on applying for a surrender quote, that they may obtain a better deal on the TEP market. A further development might involve all policyholders who opt to surrender being referred to the TEP market, and being provided with a quote automatically. Offices would need to be satisfied that such quotes were competitive in market terms. The APMM are pursuing some initiatives in this area.

12.2.3 Friends Provident have probably been the most supportive office to the TEP market in recent years, and include the following statement in a leaflet sent out with all surrender value quotations:

> "Your policy is a valuable asset and, if it is 'with-profits', you may be able to sell your policy for its market value rather than its surrender value. The market value will be lower than the potential maturity value of the policy. There are specialist companies who offer this facility, although the service will not apply to unitised 'with-profits' policies.
>
> On request we can supply you with a list of companies which either buy or arrange the sale of 'with-profits' endowments. The inclusion of a company on this list does not constitute a recommendation on the part of Friends Provident."

12.2.4 Other offices are sending out similar leaflets, but are reluctant to be seen as providing any advice with regard to who to approach to sell the policy. The main objections of life offices towards directing surrendering policyholders to the TEP market are:

(1) Offices are concerned that policyholders may be encouraged to sell in the TEP market, where they would have otherwise held the policy to maturity and not take the surrender value.
(2) It is difficult to avoid the conclusion that some offices are subsidising returns on maturing policies by paying surrender values well below asset share. If these surrender profits disappeared, the maturity values would suffer.
(3) Life offices might feel uneasy about explaining that an outside party might pay substantially more for their policy than they do.
(4) They do not see it as their place to give advice on policy disposal.

(5) TEPs require a considerable administrative effort by the life office at the time of sale, which will add to office's costs. This objection can be overcome, however, if an appropriate charge is levied.
(6) TEP purchasers are receiving projections (albeit with warnings) that the offices, themselves, are not permitted to provide, and would generally show TEPs in a favourable light versus their own products.
(7) As previously discussed, the pricing method of TEPs can lead to many policies being traded at values significantly in excess of asset share. Offices can see this happening, and have commented as such in the press. Some have circulated new TEP policyholders, to the effect that they cannot be held responsible for any disappointment.

12.2.5 It is understandable that offices have concerns if an incoming policyholder, who would be paid a surrender value of, say, 90% of asset share, receives 105% of asset share from a market maker, who then sells on the policy for 120% of asset share. The obviously good deal for the vendor has been at the expense of a poor deal for the purchaser. The difference is that the vendor can see that he has got a good deal, whereas the purchaser cannot tell that he has a poor deal. In fact, he probably believes that he has a wonderful deal on the basis of the figures given to him. His disappointment will only be evident when he receives his maturity proceeds.

12.2.6 I have much more sympathy with the last two objections to the TEP market than the others. If the sort of figures given above were true at all times, for all offices and for all policies, then one might conclude that offices should not support the market. This is not the case, and many purchasers have acquired policies, in the past, on attractive terms.

12.2.7 Perhaps offices would find it easier to support the market if the current problems of the pricing method and the information given to investors were overcome.

12.3 *Legal Risks*

Market makers report that a number of enquiries have been received from solicitors requesting valuations of policies at the time they were surrendered. They are seeking to establish the extent to which policyholders have lost out as a result of not being informed of the alternative. Is it inconceivable that a case against a life office will be brought to court and open the floodgates for a spate of similar claims?

12.4 *Treatment of TEP Purchasers*

Offices report receiving calls from TEP purchasers seeking to blame the office for disappointing returns received. I am aware of two offices that have written to TEP purchasers to highlight that the returns that they eventually receive might disappoint due to falling bonus rates.

12.5 *Funds under Management*

There are financial advantages to the life office to keep the policy in force, rather than allow it to be surrendered. From the point of view of remaining policyholders, better persistency will improve returns via spreading of fixed expenses. From the point of view of shareholders in a proprietary office, better persistency will also give them a share of investment profits on the policies which remain in force. The above benefits will be offset by any loss of 'profits' from penal surrender values.

12.6 *Surrender Values*

As the penetration of the TEP market grows, offices who set surrender values at large discounts to asset share may find that 'profits' which go to maturing policyholders and shareholders are substantially reduced. This reduction would be particularly marked if they choose to advise the policyholders about the TEP market.

12.7 *Terms for Alteration of Policies*

The practice of 'engineering' policies by reducing their term is widespread. Offices should be satisfied that their terms for such alterations are equitable to all policyholders.

12.8 *Projections*

Offices should consider the growing influence of the TEP market in future cash flow projection work. If current growth in the TEP market is sustained, surrender values paid will decrease significantly, particularly if an office actively supports the market. Mortality levels might also be affected, since many TEP purchasers will not be aware of the death of the original life assured.

13. MISCELLANEOUS

The following additional areas were examined in McGurk (1996):

— taxation;
— legal process of transfer ownership;
— collective investment vehicles; and
— viatical settlements and other traded life policies.

Interested readers are referred to that paper.

14. THE FUTURE

14.1 *The Short Term*

14.1.1 The results of the two regulatory reviews into the TEP market are

https://doi.org/10.1017/S135732170000012X Published online by Cambridge University Press

keenly awaited. An investor information regime which addresses some of the concerns raised earlier in this paper may result in lower prices. It may also have a positive impact by making life offices more willing to support the market.

14.1.2 Any significant improvement in the information given to investors would seem to require the input of the life offices, the most useful approach being a more consistent approach to producing projections on mid-term policies.

14.1.3 The development of the market over the next few years will depend very much on the approach taken by life offices. Offices which do not already do so might well conclude that, to avoid at best criticism and at worst legal action, it is appropriate to advise surrendering policyholders of the possibility of obtaining more on the TEP market.

14.1.4 Further progress, such as actively passing details of policies to market makers to provide a quote, is a possibility. This would be more acceptable if offices could see that their policies were provided to investors at what they believed to be reasonable prices and with reasonable information.

14.1.5 Technology is sure to impact on future developments. An on-line method of providing policy information to obtain competitive quotes may not be too far away.

14.2 *The Long Term*

14.2.1 The TEP market seems doomed to eventual decline, as with-profits endowments have lost their popularity as a means of saving and mortgage repayment. Furthermore, the majority of such products are now unitised, and these are not currently traded. There are technical difficulties in developing a pricing basis, and it seems likely that the 'surrender value discounts' on such policies will be less than on their conventional cousins.

14.2.2 There is scope for a significant market into the next millennium until the large volume of mortgage-related endowments written in the 1980s, typically for 25-year terms, have disappeared.

REFERENCES

CLODE, P.C. (1991). *The viabiity of a secondary market in mid-term life assurance policies.* Ph.D thesis. Nottingham Polytechnic HEC.

MCGURK, P. (1996). *Traded endowments.* Staple Inn Actuarial Society.

NEEDLEMAN, P.D. & ROFF, T.A. (1995). Asset shares and their use in the financial management of a with-profits fund. *B.A.J.* **1**, 603-688.

ABSTRACT OF THE DISCUSSION

The President (Mr P. H. Grace, F.F.A.): I welcome a number of visitors and personal guests of members. In particular, I welcome Mr Richard Cockcroft, Head of Market Practice at the PIA, Mr David Beale, Chairman of the Association of Policy Market Makers, and a number of its members.

Mr P. McGurk, F.I.A. (introducing the paper)**:** I started my career in a unit-linked life office, and have to confess that, in those formative years, I held the view that with-profits endowments were rather opaque and unfathomable creations that had outstayed their welcome. Although my views have mellowed over the years, the lack of transparency in them still causes me some disquiet. I am very uneasy about having benefits emerge from a black box and being told that I am treated fairly. I would like to know more about what is going on inside the black box.

In 1994 I was asked to advise a large overseas-based fund investing in the traded endowment policy (TEP) market on the criteria that they should use for selecting TEPs. This concentrated my mind on trying to guess what was going on inside the black box and what value to put on a mid-term policy. In particular, I tried to estimate the asset share.

I was aware that there was very little literature on TEPs, only short articles in the pink financial press. I am very grateful to the few actuaries who were involved in the TEP market at that time, particularly Mr Beale and Mr Taylor, for the assistance that they gave me. Seeing an opportunity to write a paper on the subject, I duly produced a paper for the Staple Inn Actuarial Society (McGurk, 1996). The paper that I am presenting now is a slimmed down version with some updating. There is clearly scope for further detailed research and numerical analysis, and I am glad that the Life Board have been overseeing some work in this area. The public debate on the TEP market has tended to be rather polarised, and I should like to see the life offices and the market coming closer together. The key to this is improving the information given to investors in TEPs. The market is only as good as the information it is supplied with, and I trust that the research will bear fruit in this area. I do not believe that significant improvements can be made in the information without the involvement of the life offices themselves, possibly at the behest of the PIA.

Dr B. G. Moretta, F.F.A. (opening the discussion)**:** From an actuarial, and in particular a life office, perspective, the traded endowment market is a curious one. While life offices are, at least partially, responsible for its creation, it is one over which they exert little or no direct control. It is also potentially embarrassing in two ways. On one hand, by illustrating how much people are willing to pay for partially completed with-profits policies, it can show up any inadequacies of surrender values. On the other hand, the life office may still be held responsible for any poor returns by purchasers who have possibly paid too much, or have had unrealistic expectations of future returns.

Yet it is very natural for the market to exist. The cost of initiating a with-profits policy is substantial — both in terms of direct expenses incurred and the cost of capital required to support the policy in its early years. These, of course, are related, and both tend to be greater the longer the term of the policy. From a slightly simplistic perspective, a potential TEP purchaser is effectively spreading these costs over a longer term than the seller/surrenderer, and hence can afford to pay over the surrender value. The extra is effectively his 'share' of the costs, which should still be less than starting from scratch, and often gives access to a product that is otherwise unavailable — short-term with-profits policies. The larger these expenses are, the greater the effective saving to a TEP purchaser and, potentially, the more room for a market.

So, if it leads to policyholders getting a better deal than surrendering, why should life offices not support the market? If expenses or surrender profits were excessive, then, perhaps, they would have something to hide, but if they are being equitable, then there should not be a problem, as long as the office is willing to explain why this apparent anomaly exists. I suspect that the problems really lie in the basic with-profits structure, and while unitised with profits addresses some of these problems, life offices still appreciate the degree of obfuscation that the traditional structure permits.

The second problem, that of overpaying for policies, seems more trivial for the office to address,

but reveals the main problem in the retail market today — pricing and the expectations that this creates. The use of formula maturity values and discount rates is flawed, perhaps fatally so. It is very difficult to explain the market discount rate used to a layman, or even to a relatively sophisticated investor or IFA, without using a phrase similar to "it is the expected return that you would receive if bonus rates remain unchanged." Thus, an expectation is created, even if the statement is followed by the usual caveats about future returns and falling bonuses, as it is only natural to use the current status quo as your point of reference. Although it may seem obvious to those here that a return of 11% or 12% on a ten-year TEP, when gilts are yielding 6% or 7%, is unrealistic, to some people this is just a good investment or selling opportunity, and the information in the market does not exist to contradict this. Tables of the effects of bonus cuts on TEP returns assist, but expectations require, not just quantifying changes, but also giving some idea of the likelihood of each outcome. This is hard enough for an actuary, let alone a layman, but the method is sensible in some circumstances. If a policy has only a year to run, then projecting the current bonus rates forward seems eminently sensible, so the method is not without validity, though, as the paper says, it may have been better in a previous era when bonus rates were more stable. It may be that, for outstanding terms of up to, say, five years, which generate the most retail interest, the method is not entirely unreasonable.

Asset shares are usually mooted as the obvious improvement, but, as the paper acknowledges, these also run into problems. Although the paper concentrates on the problem of which asset share to use, it comes to the reasonable conclusion, in ¶11.3.7, that consistency would force you to use the one on which maturity values are calculated. It is, perhaps, worth noting that this may be different from the asset shares on which surrender values are calculated. I think that the greater problem is the understandable unwillingness of life offices to disclose these. The problems that this would create in maintaining a sensible and fair smoothing policy may be greater than those solved by straightening out the TEP market. Even if they were disclosed, this is not the perfect pricing mechanism. The asset share cannot be considered to be a fixed threshold. If we compare it, as in Section 11.5, with a with-profits bond, then a premium to asset share can be justified. Also, the future returns depend on the assets in which the funds are invested and on future expenses (though I would expect that the difference between offices for renewal expenses is quite small). This, however, involves a similar process to investing in a new with-profits policy, and should not be too difficult with appropriate advice.

However, what projection should be disclosed to the investor? The profession suggested that the true expected maturity value is the return on the asset share, ideally allowing for asset mix, miscellaneous surpluses and expenses. It is easy to calculate the expected return to a TEP holder on this basis. However, on any sort of standardised basis, this is effectively disclosing asset shares, since anyone with a spreadsheet could work backwards. Projections based on surrender values, unless they coincide with asset shares, are unlikely to solve the problem either, since they will usually give an unrealistically low expectation of return, though some life offices appear not to mind that.

In Section 11.5 the question: "are TEPs good value?" is asked. The answer provided in the paper is 'no'. While hindsight would be a wonderful help here (as usual), I think that the case is not as clear cut as the paper suggests. I have already referred to the fallacy of using asset share as an absolute limit, yet here is a statement based on a table that is not produced, a sample of only six policies, data that are over a year old, and asset shares based on an approximation of unknown accuracy. Having said that, the figure of 21% over asset share implies a reduction in return of around 2.5% p.a., which seems a little steep.

This, then, is a difficult circle to square. On one hand we have the simple and objective, but flawed, formula value projections. On the other hand, while asset shares are theoretically more accurate, this requires either unprecedented life office disclosure or it will be practically difficult and somewhat subjective. In Section 9 the paper outlines some of the middle roads currently used. I would like to think that formula maturity values, with some sort of implied or required return to maintain current bonuses, would be the best. This would avoid the intermediate step of estimating the asset share, and it refers only to public domain return information. While it is still not perfect (for example, expense allocation is a problem), it does give a required return which is comparable with other asset classes, and hence may, at least, give some idea of its likelihood. Its immediate advantage over the

asset share estimation method is that it does not favour offices that are overpaying on maturity values. However, to be worthwhile, this would again require precise asset share disclosure at some point, otherwise it is difficult to assess whether it is better or worse, as a first approximation, than estimation using a formula, such as that given in ¶9.8.5. Additionally, it may risk giving an investor too many return figures and confusing him or her. Maybe the retail market and life offices can only resolve these problems by co-operating, possibly by agreeing information sharing on a privileged basis to establish best methodologies rather than full scale public disclosure. It seems that both sides are unhappy with the situation, where possibly there should not be sides at all.

Section 12 discusses various issues for life offices. To the list I would like to add membership of a life office. Most offices, at best, treat TEP owners as able to receive membership at the board's discretion. While this may be appropriate for assigned policies in the hands of banks or building societies, which are merely requiring security on a mortgage, I would question whether this still applies to a person who is now effectively a supplier of capital to a life office. Recent demutualisations, such as those of the Norwich Union and the Scottish Amicable, have granted membership to TEP holders, and it may be time for some offices to consider whether it would be appropriate to grant membership for absolute assignees.

The wholesale market — funds and other pooled vehicles — is only lightly touched on in the paper, yet it is an important part of the market. Many of the pricing problems that an individual may suffer from disappear — the 'investment professional' has to be considered capable of making his own investigations, calculations and judgements. Indeed, with the lack of efficiency in the market, he should be at an advantage — as is stated in Section 5.4. The market broadly prices all policies on a similar basis, with average discount rates (ADRs) varying only by term, yet bonus prospects and true expected returns do differ, and an informed investor can take advantage of this to buy the policies with better prospects. Bulk purchasing also allows managers to squeeze the pricing of market makers, and these benefits may outweigh the extra costs involved. Also, pooled products remove the second problem for life offices — any overpaying and poor returns are the problems of the managers, not the life companies. Perhaps this is the way forward for the market if it wishes to gain and to retain life office support — although it is unlikely that the retail market will die entirely, and certain tax changes over the last few years will restrict the manager's choice of vehicle going forward.

So, what about the profession? Publicly it has already made a statement, which has received a large amount of press comment. I, however, like many people who work in the field, was rather horrified by it. Not only was the tone overly sensationalist, but the statement was factually inaccurate. Perhaps it is not even the profession's place to make such statements — after all, surely, in investment terms, a TEP is like other securities, and when was the last time that the profession expressed concern about the prices being paid for life assurance shares, for example? Perhaps we can look forward to market crashes when our President expresses concern over 'irrational exuberance', but I suspect that the profession's stance will not change on these matters. At the very least, such statements should be preceded by wider discussions such as this one, so that professional opinion can be gauged. With-profits policies, whether traded or new, have a large degree of security relative to more direct investments, and still have a favourable tax position for many individuals (especially overseas). Each of these can effectively add to the value of a policy, and the value depends on any given individual's own circumstances. I think that the profession is right to highlight the quality of the information provided, but it should be providing constructive criticism and alternatives, together with their pros, cons and feasibility. I hope that this discussion will help provide a basis for this.

Mr M. R. Kipling, F.I.A. (in a written contribution that was read to the meeting): I am contributing in my capacity as Chairman of the Life Board Regulation Committee, which has responsibility for the profession's liaisons with the PIA so far as this relates to the activities of life assurance offices. The illustration bases used by life offices in various circumstances falls within this remit.

Following from the profession's press release in July 1997, referred to in ¶11.6.3, the Committee was requested by the Board to find out about the practices actually used by offices when preparing illustrations of maturity values on in-force with-profits endowment assurances. We wrote to the Appointed Actuaries of all with-profits companies, whether or not their policies were regularly traded,

in September 1997. The questions which we asked were designed in conjunction with the PIA, which also needed to increase its knowledge of illustration practices as part of its work into the future regulation of the TEPs market.

The questions asked:

— for an explanation of the illustration basis used, prompting for definitions of asset share, smoothing, supportable bonus rates and other terminology which is potentially ambiguous;
— for the relationship between asset share and surrender value;
— whether the illustrations are conservative or optimistic relative to a 'best estimate' projection of maturity value — where 'best estimate' means the value which would be paid if an investment return equal to one of those specified by the PIA (i.e. 5% or 10% after tax) was actually earned in future on the backing investments; future expenses, mortality and miscellaneous surplus are estimated neither conservatively nor optimistically, and future bonus distribution practices, *including smoothing, continue to meet policyholders' reasonable expectations*;
— whether a projection which assumes that current bonus rates, including terminal bonus, continue unchanged is unrealistically high or not;
— whether policies will benefit from future profits in excess of those deriving from investment return alone, for example as a result of an ongoing distribution of previously unattributed surplus — and whether this is incorporated into illustrations or not; and
— whether the office would be prepared to provide asset shares or supportable bonus rates to TEP market makers.

We received replies from the great majority of offices. The main findings, which we have shared with the PIA, were as follows:

— About half the respondents considered that their illustrations were best estimates, and most of the rest recognised a degree of conservatism.
— The conservatism often resulted from the use of a surrender value less than asset share as a starting point for the illustration.
— *Quite a few respondents stated that surrender values were equal to asset share.*
— A number of different methods were in use, varying from individual roll-up of asset share, via tables of supportable bonus rates, to interpolations between current maturity values and new business illustrations.
— Although most definitions of asset share were similar, at least one respondent used an asset share model in which the equity backing ratio reduced as the residual term shortened, making it unsuitable for direct roll-up.
— Illustrations which assumed continuation of current bonus levels were considered unrealistic or highly unrealistic by all respondents, although less so for policies with original terms of only 10 years.
— Quite a number of offices expect the profit in future years to be enhanced above investment return alone — most were not giving credit for this, or at least only to the extent that GN22 allows surplus from non-profit business to be offset against shareholder transfers.
— Respondents were not prepared to provide asset share bases or individual values. A minority would be willing to provide supportable bonus rates. The main objection to the latter by those unwilling to provide them was the difficulty of ensuring that the whole TEP market always had up-to-date figures.

The Regulation Committee concluded that there was sufficient diversity of practice to make a call for asset share roll-up illustrations to be provided to TEP purchasers, impractical as these would be at present. We also had our views confirmed that projections which were based on current bonus rates were optimistic when used in connection with TEPs. However, we felt that we would now like to have some numerical data on which to base any future discussion with the PIA or with TEP market makers. So we wrote again, in November 1997, to seven offices, the policies of which represent over 50% of those traded, according to the pie chart shown in Figure 3.

We asked for illustrated maturity values at 5% and 10%, and, assuming that current bonus rates continued, current surrender values and current asset shares for policies of original term 25 years and residual term 5, 10, 15 and 20 years.

All the offices responded. Our main findings were:

— The current bonus rate projection exceeded the 10% PIA projection by 53% on average (across all respondents and all residual terms). The average excess for outstanding term 5 years was 38%. The largest excess was 85%, and the smallest 22%.

— If the asset shares were rolled up, together with future premiums at 10% and notional future annual expenses deducted of 4% of the premium plus 1% of the asset share, the average result (again across all offices and all residual terms) exactly equals the average illustration provided at 10%.

— Moreover, five out of the seven offices had roll-ups which averaged (across all outstanding terms) between 97% and 103% of their illustrations. However, two offices' average roll-ups were 87% and 115% respectively of their average illustrations.

— The rate at which the average roll-up would equal the average illustration on the basis of unchanged bonuses is at least 14% p.a. after tax.

Whilst these comparisons are rather rough, in particular relying on a general assumption about expenses (if actual expenses were lower, this would tend to indicate more conservatism in illustrations), the committee feels that the illustrations provided by offices, the policies of which make over half of the TEP market, are suitable, or nearly suitable, for TEP purchasers to use to judge the price at which the TEP is being offered. On the other hand, a sizeable minority of illustrations are most definitely not suitable.

We feel that there ought to be more consistency in projections, whether used for pricing TEPs or more generally. Indeed, illustrations of amounts to repay mortgages or of future retirement cash sums that deviate too far from best estimates can result in inappropriate increases or decreases in premiums being made — which all offices should want to avoid. The Regulation Committee have indicated a willingness to discuss with the PIA how this consistency could be achieved, whether by regulation, actuarial guidance, or some combination of the two.

The committee thinks that, if private individuals are to see projections which make assumptions about future bonus rates, including sensitivity tables of the sort shown in Figure 8 and Table 2, then these ought to be matched with the rate of return which the office will need to earn in order to deliver bonuses at that level or levels. Consistent illustrations will define the diagonals in the sensitivity table matched by 10% and 5%, and others can be infilled by interpolation — and by extrapolation if the PIA continues to permit values requiring in excess of 10% to be shown. It would be up to the TEP market maker or the purchaser's financial adviser to draw attention to any factors that might lead to the illustration being below a best estimate because of regulatory restrictions (e.g. ongoing distribution of a part of the estate not being able to be allowed for on top of investment return). Then, we believe, purchasers will be in a position properly to compare TEPs with alternative packaged investments, which can only be beneficial for all participants in the market.

Mr P. McGurk, F.I.A.: The opener said that there was no short-term with-profits alternative to a TEP. Given that most TEPs tend to have outstanding terms of 5 to 10 years, you might say, perhaps, that a with-profits bond could be regarded as a reasonable investment over that period, certainly at the longer end.

He concluded that I had said, in my paper, that TEPs were still good value. Whereas in McGurk (1996) I was happy that the majority of TEPs were not particularly good value, by the time that I wrote this paper the stock market had gone up by something like 25% since the 31 December at which offices had declared most of the bonus rates then being used, and I felt that that, perhaps, made TEPs generally more attractive. So, I take issue that I was saying that they were generally bad value. I pointed out that many of them at the worst value end represented bad value, and that is something that the valuation method will continue to produce.

Mr D. G. Beale, F.I.A.: I am Chairman of the Association of Policy Market Makers (APMM). The market has been driven by the market makers over the past seven years, but they, in turn, have been enabled by a very strong investment demand which has developed for the product, virtually without any marketing effort. It is extremely encouraging that this investment demand has now expanded from the original private investors to huge volumes of policies being purchased for, and held within, institutional funds; in particular investment trusts, and latterly open-ended investment companies. The total amount held within such funds is probably now approaching £200m.

The great disappointment for the market has been its inability to reach the majority of policyholders wishing to encash their policies. Had all suitable policies found their way into the TEP market over the last seven years, then the funds under management of the life offices would now be some £7bn-£10bn higher than they are at present, and selling policyholders would have received an extra £$^1/_2$bn for the policies that they have encashed. Looked at in human terms, this means that 400,000 policyholders have accepted surrender values without knowing that they could have achieved more by selling their policies in the market.

The paper touches on this subject, but concerns itself mostly with the protection of the investor, who is generally much more financially sophisticated than the average policyholder, and therefore in less need of assistance. However, let us just look at it from the point of view of the investor. The market has now been running for sufficiently long for actual results of some significance to have been examined. Over the 12 months to 31 December 1997, my own company examined the maturities of about 700 policies, and found that the average compound return to the investor was 9.38% p.a., which, in most cases, is a capital gain, and can often be sheltered from further tax. These returns are against the background of original average discount rates in the range of 10% to 15%. Thus, the risk discount rate seems to have worked effectively, and, in view of the fact that in the seven years that the market has been in operation the regulator has received just one complaint from a dissatisfied investor, it seems to be well understood by those who use the market.

The market, however, is not complacent. The APMM and its members have worked continuously to develop better and clearer means of presentation of investment information, and rules were agreed with FIMBRA in 1992. More recently, the Association has been working with the PIA, the SIB and the Institute of Actuaries to see if an even clearer basis of presentation can be developed to avoid the possibility of any investors misunderstanding the information which is permitted to be given to them.

As we have heard, one area of discussion has centred around the provision of PIA mid-term projections to investors, which the APMM was interested in pursuing. However, on examination, the APMM discovered anomalies that were unacceptable, and which are now being addressed by a Faculty and Institute working party. It is significant that, of the 15,000 or so policies purchased on behalf of institutional investors, there was no single instance where LAUTRO (now PIA) mid-term projections were used as part of the investment assessment.

There seems to be an implication that market makers want to encourage higher prices to be paid. This is absolutely not the case. Market makers in TEPs, as in any other security or commodity market, profit from the margin between the purchase and the sale price. The actual level of the price itself is immaterial, except to the extent that it should represent a fair indication of the balance between the supply of, and demand for, the assets concerned. This is a market. Investors are not buying life assurance products, and, from the point of view of protecting investors, regulators and others should recognise this. Although they may technically fall within the definition of a life product, TEPs are certainly not regarded as so by those that buy them. Investors should, of course, be given the clearest and fullest possible information on which to base their investment decisions.

The values of surrender value discounts, in Table 1, should not be compared directly to the figures that the author has given for the premium over surrender values for the policies identified in ¶11.5.4. It is very simple arithmetic, but easily overlooked.

Paragraph 3.2.5 mentions the use of TEPs within self-invested personal pensions (SIPPs); however the Revenue has not approved TEPs for SIPPs.

The author mentions the perceived pressure on prices because of increased interest generated by the allocation of windfall gains to TEP holders. I have examined prices over the last 2$^1/_2$ years, and I have found that at no time have they moved up by more than 5% above the level of April 1995,

and now stand below that level, despite the very dramatic increases in the value of assets that underlie the with-profits funds. The value of a typical with-profits fund should have increased at a rate significantly in excess of the 14% or so required to maintain bonus rates, and hence prices, over the same period.

So far as terminology is concerned, APMM members have now adopted 'pricing discount rate' in place of 'average discount rate', to try to clarify its purpose and to avoid any misunderstandings that it is some forecast of yield. It does, of course, contain a risk discount rate, which is there to allow for the probability that future reversionary and terminal bonus rates will reduce.

Section 5.6 covers the adjustment of pricing discount rate in relation to original policy term. Some years ago it was the case that short-term policies were priced at higher discount rates than long-term policies, but this is not now the case, as the terminal bonus rates on short-term policies have been subject to such significant reductions over the last few years that they are now felt not to hold any more down-side risk than long-term policies.

In ¶9.1.2 the formula maturity value (FMV) is described as an estimate of maturity payout. The incorrectness of this statement is pivotal to the traded endowment market. The FMV is not, in any sense, an estimate of maturity payout, it is merely an arithmetic calculation used in the pricing mechanism.

The author discusses asset shares at some length, and, indeed, institutional investors in the market have made their own assessment of asset shares as part of their stock analysis; but it would be improper to include such a subjective calculation as part of the investment information made available to private investors. If life office generated figures were available, then their disclosure should be encouraged.

In ¶10.6.7 the author criticises the high ADRs, now pricing discount rates, saying that they could only be achieved by selling TEPs at prices which are well below asset shares. Clearly, if policies were sold at prices substantially below asset shares, then the ADRs would be even higher, and apparently even more difficult to achieve. I find the statement rather illogical, and it is liable to lead to a misunderstanding of the use of pricing discount rates.

In ¶12.2.5 the author considers a hypothetical example of a policy sold at a 20% premium to asset share to the investor. He makes the statement that, on the basis of the information that the investor has received, the investor probably thinks that he has got a wonderful deal, despite the fact that he has a poor one. I believe that the subjective assessment of the thoughts of a hypothetical investor in such a situation has no place in a paper submitted to the Faculty.

So far as the future is concerned, I agree with the author that, ultimately, this market will decline; but, in the meantime, there are many hundreds of thousands of policyholders to be helped to achieve market value, and many investors whose requirements for TEPs need to be satisfied.

In summary, the current method of pricing has served investors well over the last eight years, and, with the addition of improved presentation, including the use of policy specific tables showing sensitivity to future bonus rate change, it remains most effective, and we look forward to adding useful asset share information when it becomes available. Policyholders do need to be better informed of the existence of the TEP market, and they deserve to be put in the picture by their product provider, who is in a unique position to do so at the correct time. It also keeps funds under management without any marketing costs, whereas surrender, in the case of a mutual life office, represents an unplanned reduction in capital.

Market makers look forward to working with the profession, the regulators and life offices to ensure that these objectives are accomplished properly.

Mr P. McGurk, F.I.A.: Mr Beale's statement that investors in TEPs are more financially sophisticated than people who surrender policies is, I am sure, true. However, I am still not sure that a lot of people appreciate the position. In particular, if you look at articles by financial journalists, who are supposedly financially sophisticated, it is not too difficult to find statements to the effect: "why invest in a gilt yielding 8% or 9% when you can invest in a TEP that yields 12%?" There is an example of financially sophisticated people perhaps being a little misled.

Mr Beale also said that market makers do not want to encourage prices to increase. I can accept

this up to a point, but I think that there is a benefit to them in seeing higher prices, and that benefit is to make more policies tradable. To become tradable, there has to be a sufficient margin between the sale price to an investor and the surrender value, and the higher the price is, the more policies will generate that margin.

Mr C. W. McLean, F.F.A.: It is unfortunate that this professional discussion comes after the Faculty and the Institute have issued a press release on the topic of TEPs. I can understand the temptation by the profession to rush to comment — even in sensationalist language — given its silence on some past issues that might have merited a view. However, I think that one of the key underpinnings of a profession — along with education and standards — is good academic practice and mutual professional self respect. That should be reflected in giving an opportunity to members of the profession to contribute to, and debate, matters of importance before any public claim to scientific truth or consensus. How could "the profession have a concern", as stated in ¶11.6.2, before it had had a debate? It does seem a little surreal. I hope that, not only will the events of last year not be repeated, but that the views represented here will be used to present a more considered view of this topic from the profession in future.

I view the paper as a useful information document, forming a background to this important debate. However, while a very readable commentary, it is a little long on assertion and light on hard evidence.

I do not disagree that a strong market in TEPs, in 1996 and 1997, was associated with some unrealistic assumptions in the retail market. However, it is difficult to disentangle any lack of realism by some market makers from some questionable statements from life offices about the relationship of surrender values to asset share. I do not think that we should make the mistake of merely questioning one side's information. Some heroic assumptions are needed to support any claim that private or professional buyers pay too much. Indeed, I shall explain why I believe that much of what has been said in relation to asset share is wrong — particularly in relation to purchases by experienced professional investors for pooled funds.

Section 11.5 asks: "Are TEPS good value?" We are told that one life office argues that its surrender values "broadly reflect asset share", and "represent a fair value". However, in general, have we not always been told this — even as regulators have, over the years, encouraged widespread improvement in surrender values. Again, features in the weekend press call this assertion on surrender values into question as a general truth, even if it is a fact within a particular life office. Has no-one here ever seen any contribution to surplus from surrender profits? As we have heard, the results of the survey referred to in ¶11.6.5 suggest that a large proportion of the life offices surveyed do not believe that surrender values reflect full asset shares.

What we must remember is that a life office actuary will have particular reasons, at any point in time, for calculating surrender values in a specific way. Others may choose to make quite different assumptions, or to recognise other aspects of value. The independent actuary in a demutualisation would put his name to a different valuation from that which the Appointed Actuary produced on a 'going mutual concern' basis. Indeed, quite possibly, a different Appointed Actuary would arrive at a different conclusion, or even the same Appointed Actuary might change values based on different forecasts of growth, business mix, costs and investment returns, etc. He may even be directed to do this under the terms of a change of policy set by his board.

Asset share is a less precise concept than the book cost of capital figures presented by auditors in a company balance sheet. Yet, even where a commercial company, listed on the stock market, presents an asset value per share calculated by accountants and endorsed by directors, it is still open to investors to pay a higher or lower price for shares. Indeed, many, for reasons our profession well understands, pay considerably more for shares than the technical asset valuation — without directors being surprised, or accountants feeling impugned professionally, or regulators being asked to investigate.

The fact is that we do have a secondary market in shares, and endowments are classed as securities. Life offices may wish that trade did not happen at what they think are the 'wrong' prices, or, indeed, that there was no secondary market at all — but there is. There is not even a unique argument in the pleading that life offices may still get complaints from those who buy in the

secondary market and are ultimately disappointed. That happens to commercial companies, and even to some savings vehicles such as investment trusts. Investment trust shares can trade at a premium. For example, a certain investment trust trades at an apparent premium, but investors have concluded that the directors' published asset values lag the true position. Incidentally, those investors have been right over the years, but I have not seen the board or managers or auditors complain. While an investment trust board may not need, in retrospect, to justify the premium paid, it is still exposed, in respect of these investors, to external comparisons which might eventually show that the underlying performance was poor. Asset shares are not so far removed from this position.

Before explaining why this is, I first remind life offices that the steady increase in transparency of performance — and not just investment performance — has been a trend for decades. This drive for transparency is not just being recognised by investors, but has been encouraged by many life offices. Non-profit business, flexible endowments, single premium endowments and unitised with profits have all brought greater public information about actuarial assumptions and investment performance. The promotion of endowment mortgages, in many ways — by assigning interests, by selling to a market more likely to surrender — paved the way for the TEP market. The clock cannot be turned back. It is not for life office actuaries to determine secondary market values, any more than trading companies can with their shares, or house builders or car manufacturers can with their resale values. These last two industries do, at least, seem to want to encourage a healthy after market!

Yet, it is not just on this argument that I believe that Section 11.5 is wrong. Even if these surrender values are now, at last, in line with the life office actuary's assessment of asset share, we can presume that this means no greater than asset share — for who is going to pay departing members more than their share? So, any margin of safety in avoiding this error will be on the side of ensuring that there is absolutely no risk of surrender value exceeding asset share. Yet new single premium endowments are sold, because of expenses, at no less than asset share. That difference — new at no less than asset share, second-hand at no more — is enough to guarantee a market and an investment opportunity for professionals. The size of the opportunity can be guessed at. We know, on the new policy side, that single premium policies can start as high as 9% above asset share.

We should not jump to the conclusion that TEP buying is misplaced. The life office actuary can calculate an internal value for asset share — but comments on whether surrenders or new policies are 'fair value' are not necessarily actuarial ones. What I do find astonishing, in the context of the claim that new policies are good value (although transparently not as good value as surrender values), is the assertion, by the same life offices, that second-hand values must be bad. Paragraph 12.2.4(6) suggests that life offices think that it is wrong that TEPs might be shown in a favourable light versus new products. *However, it might be entirely right. I would hope that whichever was better value would* be shown in the more favourable light.

Paragraph 11.5.3 refers to a table that is not in the paper. I do not think that we should accept the assertion without such evidence — and, indeed, a subjective selection of just six policies is less than I hope our profession would base its conclusions on, in any event. Yet the author then goes on to accept that surrender values are revised infrequently. Were they in line with asset shares last year, or last week? How have shares or other asset classes changed this month? As the author mentioned earlier, asset shares may not reflect last year's re-rating of equities. Should asset values be re-appraised to take into account the possibility of global deflation, or the possibility that a stock market change is a permanent shift and should not just be smoothed away? External investors have as much right to take such factors into account in their calculations and projections as the technical expert within a life office. Indeed, we seem to be being told by life office actuaries that "if they do not chose to measure it, it has not changed". Stock markets do change, and just because we have not revised asset shares in between does not mean that they are still the same.

The author tells us, in ¶11.5.7, that "only the life offices are in a position to supply reliable asset share information to investors". Does this 'reliable information' include all assets of the life office at current realisable value? It seems that rather more is likely to go into asset share in future — already all too readily visible to external professionals, who can do their own calculations on the impact of restructuring, balance sheet changes or new business changes.

Traded securities clear at prices that match a willing buyer and willing seller. Before one side can

comment on whether the other has paid the 'right' price, he should, maybe, find out the other's expectations. Remember that private investors buying TEPs directly account for less than 5% of the TEP market, so I am a little surprised that professional investors have not been asked for more information on what determines the prices they offer. We should, of course, remember that any commercial exchange necessarily involves a difference of opinion, in so far as one side is acquiring the asset and the other forgoing it. I do not think that the profession should set itself up as the sole arbiter of value. Indeed, even the communist economies seem to have realised that they cannot set the prices that markets clear at.

I accept that asset share is a difficult concept. We might find that what the life office actuary means when he calculates asset share does not represent the whole picture when a professional investor is buying. No doubt, even if old policies are cheaper than new ones, as assessed by some professionals, and the TEP market is clearly capable of offering good value, we will still be told that asset share has a quantum nature. It is claimed that it is only quantifiable in aggregate, a matter of probabilities, and an unrealistic notion for a single policy. Indeed, even if a life office actuary could put a number to asset share at a point in time for a specific policy and publish it, he would reserve the right to smooth it away next year. An individual buying it, they argue, would have no right to complain. However, before accepting smoothing as capable of undermining the role of asset share in the TEP market, we should remember that funds are buying large numbers of policies from each office. The portfolios that they create can take account of this and average it out. Even smoothing over time — with TEPs of life offices reducing bonuses appearing to be expensive versus those increasing payouts — is a factor that experienced investors can allow for. Also, we should remember that many professionals are involved in each public fund — actuaries, as well as other professionals, are typically employed by the managers, the policy advisers and on the board.

Many offices smooth using dividend discount models — assuming a 'normal' yield for the equity market. Might they be wrong, so that an experienced investor is able to exploit these incorrect assumptions? Life offices also have been known to make commercial decisions on bonuses and smoothing — we only need to look at 25-year results, in the context of adjacent years, to evidence this. There is also another influence on smoothing and bonuses that seems to have been forgotten entirely in the paper, and that is governance. I had always thought that overall policy was set by boards of directors answerable to members, and quite capable of directing management and actuaries to change practice in smoothing to apportion benefits differently, or even, possibly, to enhance value for the office overall by a change of commercial strategy, or structure, or cost cutting. External investors may be better at spotting this possibility than professionals internally.

I am pleased that the paper has opened up a debate, and I hope that it will turn into a constructive dialogue that does not waste the profession's energies in trying to turn the clock back. I do not believe that the demand for greater transparency in savings vehicles can be arrested by a single profession. The TEP market exists. For the most part it works very well. It employs many actuaries, and helps secondary market values in a way that almost every other industry would view as beneficial. With some help from both sides, I believe that it could work even better.

Mr N. H. Taylor, F.I.A.: I speak here 'wearing four hats'. First, I am an ordinary actuary speaking in my private capacity. However, I am also the consulting actuary to two of the quoted funds; I am Chairman of the profession's Personal Financial Planning (PFP) Committee; and I am the consulting actuary retained by the APMM to assist them in their response to the PIA and SIB reviews. With all of these hats on I welcome this paper. If you think that there is a conflict somewhere, you are right. The main one is between the last two — Chairman of the PFP Committee and my APMM role. To minimise this, and to enable me to give unconstrained advice to the APMM, I have made it clear, and have had minuted in the relevant circles, that I do not associate myself with the profession's views — and that is whether I agree with them or not. Thus, I am not speaking here as Chairman of the PFP Committee.

The market has been developing very quickly, as is illustrated by Figure 1. With that development has come both a need and a demand for greater actuarial input. When I got involved, about five or six years ago, there were few actuaries active in the market. Now we see actuaries employed by the

market makers; we see consultants giving advice to both the public and private funds as well as to the market makers; and we also see a number of actuaries acting as directors of these funds. Even so, our numbers are still small.

The author has explained the pricing bases adopted very well, but, as he says, these are a legacy of the past. Coming to it cold, as we both did, I too found it somewhat odd, but, as my role was to advise a fund, I did not have the immediate public interest to worry about. I was lucky in that Mr Beale's company was our fund's lead market maker, and that his actuarial career had been spent in investment. His programs — not surprisingly for an actuary — were written so that different risk discount rates could be applied to the constituent parts of the formula maturity value, the resulting overall risk discount rate being very much the average or ADR. These programs allowed me to try out my ideas on risk discount rates to get some sensitivity tests of my own, rather than take the ones which the market makers prepare. However, it is not mentioned anywhere in the paper that an ADR is a risk discount rate. The actuarial profession should live comfortably with this, but we may have a public education job to do. Many market makers now call it a pricing discount rate (PDR), which is a more satisfactory term.

I was slightly surprised that an asset share approach was not being used by the more sophisticated operators. However, asset share methodology was still being developed by the life offices, although they were certainly using it then as a tool to assist in deciding on bonus rates. Mr Beale and I worked together to put an asset share model into our purchasing factors. To the best of our knowledge we were the first to do this, and we are delighted that our lead has been followed by others. Thus, my fund's purchasing terms were based on a combination of risk discount rates and asset shares. My second fund has adopted the same approach.

As we all know, asset shares are not at present published by offices, although it is clear from the profession's press release that this would be helpful. It seems to me that, to issue a press release suggesting a better approach to valuing policies — an approach which I clearly support — when only approximations to the information are available, and then only from actuaries, was rather unhelpful — or is the profession issuing a demand in disguise that offices should make this information available publicly? I certainly believe that they should.

Those of us active in the market are well aware that some people are paying over asset share for their policies. Clearly the funds have an advantage, as we get better terms from the market makers and avoid paying commission to the purchaser's adviser. We also purchase policies which mature further ahead than private individuals favour. That said, investors are prepared to pay knowingly over asset values for various investments — I am no expert in their reasons, but it may be a risk premium. *The funds that I advise are trading at a premium over asset value, but there is a limited downside risk*, and, if investors care to look into it, they might consider that my valuation bases err on the side of caution. There is a philosophical point here. As actuaries, we tend to look at the market as one in policies, and apply our traditional approach. Investors look on the market as an investment one, and make their purchases in the same way as they do for ordinary securities.

I asked one of the top market makers if he could give me a quick analysis of his customers. Overall, he reckoned that about 25% of their business was to public and private funds which are professionally advised, a little under 60% to private individuals through professional advisers, and about 15% direct to the public. We have heard that some market makers might have an even lower proportion of business direct to the public. I cannot help wondering whether we are giving too much attention to the purchasers of policies and too little to those considering surrender, who, in most cases, probably do not seek professional advice.

An issue associated with pricing, and one rightly close to the hearts of the PIA, as well as of the profession in its public interest role, is the information provided to investors. My own view is that private investors should be given the same level of information as professional investors and their advisers, but I would look to providing much better health warnings — something which the APMM members have in hand. I do not have the concern over showing FMVs and PDRs that some do, provided that they are properly explained. I am sure that, with all that is written in the newspapers about bonuses, there can be no-one who seriously believes that existing bonus levels will be maintained, but do not forget that bonuses can go up as well as down! The use of sensitivity tables

— perhaps extended downwards — are a great help in this. I am a great believer in providing a policy specific 'key features' document, containing full information, including bonus sensitivities. The APMM, too, are keen for this to become mandatory forthwith.

McGurk (1996), together with the PIA and our own profession, in its recent press release, believe that the PIA mid-term projections should be shown. (I remind you that I was not associated with our press release, even though I was the one who put the subject of TEPs on the PFP Committee's agenda).

I am very comfortable with showing these projections in the current regulatory environment, as is the APMM. However, when I looked into the ways that offices made their calculations, I found, to put it politely, a shambles. That is what the profession, in its recent survey, also found. Thus, I advised the APMM that, to show such projections, would be misleading. Our profession, unfortunately, failed to check the position before issuing the press release, but at least it came up with the wishful thinking that the starting point was based on asset shares. The survey that the profession carried out concentrates on the TEP market, but the issue is much wider.

We now know that at least half the offices surveyed issue conservative projections. I would say to them that they have deliberately misled their policyholders. In the worst case, policyholders will have surrendered or sold policies on the basis they were not worth continuing; or they will have been forced, unnecessarily, to effect new policies by their mortgage lenders in order to cover their mortgage, or to switch part of their loans to a repayment method; or they may well have been misled over the sums that they would have available to meet their retirement needs. I do not know the size of the problem, but these offices would be well advised to check it out, and to offer appropriate compensation to those policyholders who have been disadvantaged. I am glad that the profession is helping to remove inconsistencies. I await the recommendations with interest, but any fudge, particularly one which does not effectively use asset shares as the starting point, needs to be firmly quashed.

I can understand why some of the life offices are reluctant to acknowledge the traded endowment market. However, if we can get a better educated investor side, then I believe that they will be left with little excuse. Even so, I think that, at that time, it will be for the PIA to tell the offices that they are required to inform those proposing to surrender about all the options; not just to keep the policy going, to take a loan, to make the policy paid up or to surrender it, but also to trade it in the market. IFAs are under an obligation to cover all these, but policyholders who are thinking of surrendering do not often consult an IFA. The PIA must be just as responsible for protecting these policyholders as they are for investors.

I am very concerned that the public has surrendered policies when they might have done better by selling. I believe that, by their silence about the market, offices could well be accused of misleading their policyholders, and thus exposing themselves, yet again, to paying compensation. However, the PIA is in a difficult position, which it is important that we understand. They must strike a balance between concern for protecting investors in TEPs with a need to ensure that those who want to surrender their policies are properly informed about the alternatives.

The two funds, sponsored by a merchant bank other than my client, base their valuations on auction prices. I base my valuations on an analysis of market makers' prices, adjusted in certain cases, because this gives me answers outside acceptable asset share levels. I am not sure that the public is well served by this, although neither of us try to hide our different approaches. As an example, there was an interesting position in 1996 when market prices moved up. Their net asset values reflected this at once, and thus jumped up. I took a more cautious approach, and smoothed my change over three months.

This, again, is a subject which needs to be aired in the profession, not least with the introduction of the Scottish-based public fund and the open-ended funds.

I stress that I believe that the PIA's investigations, backed by helpful input from the profession, the APMM and the life offices, will enable the TEP market regulatory system to be updated to match the high standards expected these days. The profession is helping over mid-term projections, and I hope that it will make a significant input when a consultation document is issued by the PIA.

Individual actuaries at the PIA, active in the market, advising others, and within the life offices, all have their part to play.

Mr P. McGurk, F.I.A.: With regard to Mr Taylor's point about improving health warnings, I think that it seems unlikely that the PIA and the profession are going to come up with a system based on asset shares, giving best estimate projections, in the very near future, and, even when they do, it is going to take quite a long time for offices to build that into their systems, so that they are in a position actually to give that information. I wonder whether, in the meanwhile, we need some sort of intermediate system, whereby the health warnings are beefed up a little bit, particularly if a sensitivity table is shown. I think that a key problem with sensitivity tables is that there is nothing on which you can hang your hat to judge how likely a 10% bonus rate cut or a 20% bonus rate cut is. I think that, in isolation, sensitivity information is not all that useful.

Mr P. D. Robertson, F.F.A.: I have no objection to the market whatsoever, but I object to two stories that used to occur in the press, and, in fact, still do. One week journalists would write about how mortgage-related endowments were not going to repay loans, and then the next week the same journalists would write about the TEP market, and what wonderful returns could be achieved by buying such policies. In the first week they write that a policy is not going to repay a £30,000 mortgage; the next week they state that it is worth £60,000 at maturity. My objection is simple: both of these stories cannot be true. I did not mind which of the stories — preferably both — was dropped, but it offended my sense of logic that both of these could be written by the same journalist.

It is clear that, for sellers of policies, the TEP market is clearly an extremely good thing. If you can get more than the surrender value, clearly that is good. For buyers, and particularly for individuals, the merits of the market are less obvious. I work for an office that has more mortgage-related endowments than any other. I therefore work for an office that has more policies traded than any other. I am young enough to have to answer the complaints that will come, perhaps, in 15 years' time. Perhaps it is a bit too much foresight, but if we can avoid some of these potential complaints now, that is not a bad idea. As an office, we probably co-operate more with the traded endowment market than any other — not to the extent of promoting its existence, but to the extent that any policyholder who comes to us is referred back to their IFA. We also notify the IFA of the surrender. That means that there is then an obligation under the adopted FIMBRA rules — now the PIA rules — that the traded endowment market is discussed as an alternative to surrender. It is one thing for the IFA to discuss such an option, but another, entirely, for the life office staff, who are not authorised to give advice. For example, a surrendering policyholder might be better advised to give up some other commitments. He might be better advised to reorganise his entire financial affairs. Without being qualified to give advice, one cannot know the right answer, and, consequently, life offices, quite rightly in my view, only offer options within their control, and hence do not discuss the TEP market.

There are three issues on which I wish to comment: the social good of this market; the logic of this market; and actuarial rigor.

Social Good

When you look at the issue of social good, there is no doubt that, if people are losing out because surrender values are quite often penal, then the TEP market has much to offer. Unfortunately — and this is partly a function of the PIA rule that discussing the TEP market only involves IFAs — the direct sellers, who tend to have the highest lapse rates and the worst surrender values (this is a generalisation, but nevertheless true) find that their policies do not come to the market. This is quite clearly an issue that needs to be addressed. I very much welcome any change that ensures that more such directly sold policies are traded rather than surrendered. This would improve the supply of policies in the market, and so reduce the prices. Following such a change, my own office's concerns would probably disappear, because our policies would cease to be quite so actively traded, because of this increase in supply.

Logic

There is a market in conventional with-profits policies, but there is no market in unitised with-profits policies. The policies, as any of the actuaries who designed them will probably tell you, are exactly the same. The investment media are the same, and very often the benefits are almost identical. If I were to look at our own business, and compare a unitised and a conventional with-profits policy, with the same premium, the same term, and roughly the same death benefits (they work in slightly different formats), the maturity values and surrender values would be within 1% or 2% of each other. Despite this, the conventional with-profits product is traded, but not the unitised with-profits one. Why is that? If this was, indeed, a logical market, it would have an answer to that point.

Actuarial Rigor

The market is about determining the difference between the surrender value and the asset share. Can you buy this policy for less than it is actually worth, but still give the person who is selling it more than the surrender value? The discount method is essentially a complex way of answering the question. It is obvious that, if you project forward at rate a and discount back at rate b, if a is greater than b, then the value will increase. It is this very simple, but flawed, premise that this market depends on. We also need to look at the 'sensitivity' testing that market makers apply. Investors are told about what might happen to the rate of return if reversionary and/or terminal bonuses go up or down by roughly 25%. We only have to look at recent company announcements to see that increasing reversionary bonus rates by 25% is not likely in the foreseeable future. Reductions of greater than 25% are certainly conceivable, and have happened over recent years.

When we look at the terminal bonus side, it would be reasonable to say, if you talked to the people on the Bonus and Valuation Research Group, that realistic terminal bonus rates on a 25-year policy in 10 or 15 years' time could be as low as 25%. They are currently roughly 100% of the attaching bonuses and sum assured. You could argue for a 75% drop in terminal bonuses over a 15-year period. I am not saying that this will happen, but it could. Perhaps the sensitivity tables used by market makers could show rates going up to 110% of current levels (indeed, some terminal bonus rates have increased this year), but possibly falling to 25%. Such a range of returns would give many potential TEP investors pause for thought.

This brings me back to where I started. If we do see reductions in bonus rates on this sort of scale, one can find examples of policies that will not repay the associated loans. The journalists may be right in some instances, and at least a few insurance companies genuinely believe that some of their policies may not repay the associated loans.

So, what else can the APMM do to improve the rigor of its analysis? Perhaps it could start to look at the difference, as the author pointed out in the paper, between surrender values and maturity values after similar durations. If a policy is worth X on maturity after 10 years, one should think twice if a policy is offered for sale at 10% over X, 10 years into a 25-year term.

One could also reasonably look at the underlying assets. I am not aware of many people who are forecasting rates of return of 10% or 11% for a mixed portfolio — that is after tax and expenses — yet that appears to be one of the tenets that underlies this market. One could also look at the yield to date implicit in the surrender value or the sale. None of these checks are difficult things to do, but they would genuinely improve the way in which the market operates.

I stress that I would very much like to see a widening of this market, particularly to the direct selling offices and to those of their policyholders who, as a result of receiving poor surrender values, are able to say that our industry provides very poor value. I would like to see these individuals receiving better value, either because they are getting paid more through the secondary market, or because the life offices, themselves, are forced to improve their surrender values. If the TEP market forced such change, it would do the entire industry and the public a great service.

Thus, I have no problem with the existence of the TEP market. I also have no problem with what the professionally managed TEP funds are doing. It is the manager of the fund's reputation which is at stake if things go wrong. However, I am concerned about the market for individual investors, and while only a small proportion of policies may be bought direct, without advice, there are, nevertheless, a large number of them which are bought by individuals, as a result of being

professionally advised. This is also true of the market for new policies, so it is a bit spurious for Mr McLean to claim that only 5% of policies are bought direct — somewhat less than 5% of new life assurance is bought direct, if one thinks of 'direct' as meaning execution-only. There is very definitely a dialogue going on, and we will make things better. Perhaps my own seat in the audience indicates that, sitting between the head of the APMM and of the PIA.

Mr M. D. Paterson, F.F.A.: The main issue is with projections for existing business. Why do we have the current rules for existing business for normal life assurance products? Why did the regulators force life offices to issue figures which avoid giving best estimates that the clients actually want. I was on the LAUTRO Board when the current rules were drawn up. I tried, but failed, to persuade my colleagues that projections for existing business were required for quite different reasons from that of selling new business, and it was not about worrying whether a pensions case might exceed maximum funding levels. You had to let the clients know roughly where they stood in the last few years of a policy. The rules, far from protecting the consumer, may increase the chance of his making a decision which is not in his best interests.

The TEP market is one case. The two main reasons for requesting a projection, particularly in the last five years or so of a policy, are: will my endowment repay my mortgage; and what will my pension be at, say, 58 or 60, because I want to know how soon I can retire? The regulators should revise the rules, but the drivers must be mortgages and pensions, with TEP requirements just having to fit in once the rules for the main purposes have been decided.

The key safeguard for consumer protection, which was brought in in the late 1980s, was to avoid single number selling and to bring in what is really obvious — we do not know what the answer is going to be from this product that we are selling, and we should show a range of results on reasonable assumptions. It does seem curious, at the time when those rules were brought in for life assurance and pensions products, that the TEP market, which had existed for 150 years and which was not required to come on to the two-figure range method of projection, suddenly exploded into life after all those years, when it did not seem to have competed very well with new products. I think, from what I have heard here, as far as I understand it, that, although there are sensitivity tables and various other aids to understanding the product being brought, the product seems to be fundamentally sold round a one-figure projection, like a discount rate, whereas life assurance and pensions products have to be sold showing two figures.

I hope that the regulators, when considering the TEP market so far as private individuals are concerned, whatever the proportion of the market that is, make sure that the TEP market is presented as follows: you are going to pay an amount of money, and it is invested in a basket of assets where we, the regulators, require the projection to be in the same form as it is for others investing in such a basket; and that it is at two rates of interest, 5% and 10%. In addition, somehow you have to have a starting point, and explain how the starting point was arrived at. If you actually said to people that you can be no more sure of what you are going to get than from an ordinary product, then I wonder whether some of the private investors would still think that it was the product that they think it is today.

Consider projections over a short outstanding term, particularly the last five years, for life assurance and pensions products. Take the simplest case of a unit-linked pensions policy, with £100,000 in the kitty, and the person is wondering whether he can afford to retire in 5 years' time. If you project forward at 6% and 12%, then you get answers of £134,000 and £176,000. You have two figures, 32% apart. This indicates a range in which the final fund might be, and you have some idea of where you are going. On the same basis, if it is three years ahead the range is 18%. Where the regulations are completely odd is if you are only going one year ahead. Then they imply that the product is not really very volatile now as it is only a 6% range, or six months ahead it is only a 3% range. The impression given is the opposite of what is happening. The volatility is still there. To project forward at two rates of interest is not suitable for short terms, because it totally under-estimates the volatility.

Then for pensions, having done this and totally under-estimated the volatility of the fund, the regulators force you to grossly over-estimate the volatility of the annuity rate that you are going to

apply. If you get 6% growth, then you must apply a 5% annuity rate. If you get 12% growth, you must apply a 10% annuity rate. If you are only going a few months into the future, you say that the assets are not likely to vary outside a 3% range, but the annuity rates are going to vary in a 25% range.

These are the issues which should be addressed, and these should be addressed first. The TEP market should not be dealt with until after these have been sorted out.

The life offices seem to be hiding behind some of these rather odd rules. My intensive actuarial research recently has been done at the golf club, where a friend asked me whether I could help him decide if he could afford to retire. He was just 58, and he wanted to retire at 60. He has 20 with-profits policies spread over seven offices. He said: "I got some quotes and I did not understand them". I said: "That is all right, I will look at them". I got the quotes from the seven offices and I had one or two questions to ask. I did not quite understand what the figures were based on, but I knew that I was adding up apples and pears. Some of them seemed to have a terminal bonus and some did not, but they did not indicate whether they had or not. It took me 17 hours' work to add up the numbers.

It is said that individuals should be getting professional advice to find out if they should take the surrender value from the office or go elsewhere. In this case my friend was going to pay an actuary for 17 hours' work to add up a few quotes for an estimate of what might happen in two years' time. The cumulative effect of varying office practice is a complete shambles. The with-profits personal pensions offices are obviously doing themselves a grave dis-service by providing utterly incomprehensible information. No wonder the TEP market also gets fed up with their similar practices for with-profits endowments.

Mr G. M. Cottingham: I am a student of the Institute of Actuaries, and am involved in the APMM through being a director of one of their member companies, and am on their technical committee.

The author describes the valuation methods suitable for use in the TEP market and the provision of information to investors as contentious subjects. I should start by emphasising that continuing improvements in these areas are actively sought by the core of the market making fraternity that is within the APMM membership. We have worked for many years to build a respectable market place, and have sought to include the life offices and the regulatory authorities in this development.

I therefore welcome the more recent interest shown by the actuarial profession and other parties, as I hope that this might herald closer co-operation and constructive efforts to address these issues properly in the mutual interest of policyholders (both primary and secondary), life offices and market makers.

With regard to valuation methods, the author describes the shortcomings of the existing standard market method, and, crucially, acknowledges the problems associated with the alternatives. Whenever a weakness is identified with a particular way of doing things, there are always those who advocate early change because they are concerned about the weakness. Sadly, in the real world things are not that simple, and the alternatives have their own weaknesses. The old adage of 'look before you leap' springs to mind. Whilst I believe that change is necessary, it must not be for change's sake.

The fact is that the existing valuation method is well established and easy to understand, whereas the alternatives lack the same transparency. I would be delighted if it were possible to use asset share information, calculated on a common basis by all life offices, in our valuation basis. However, whilst life offices are unable, or unwilling, to provide this information, the greater accuracy offered by use of asset shares will not be achievable. A significant obstacle in the life industry to meaningful disclosure of asset share values is the level of inconsistency in calculating them. It must surely be possible to set a headline asset share definition in the same way as there is the IIMR headline earnings definition, for example: for this, see the *Statement of Investment Practice, No. 1,* published by the IIMR in September 1993. Perhaps the imposition of a requirement to publish such a figure should be a topic for the profession and the regulators to consider.

Ultimately, of course, the value of a TEP is the amount that an investor is prepared to pay for it, and an equilibrium price level arises from demand and supply in the market.

The suggestion that the publication of PDRs and FMVs is misleading is questionable, as has been raised by earlier speakers in certain respects. Market makers go to great trouble to point out that these

figures are not actual, or even expected, returns, or forecasts of maturity values. They are merely a common basis for comparison between policies offered for sale at the current market equilibrium. I appreciate that there are certain flaws in that, which the author has addressed. It is now common practice to offer prospective purchasers sensitivity tables to further underline the scope for variance of actual returns with changes in bonus rates. It is accepted that alternative presentations are possible. If one were to consider PDRs as some measure of return, having accepted the assumptions stated on the sales lists, one should remember that they would still be risk discount rates, and so they are expected to have some margin for compensating against potentially lower future bonus levels. This is an important point not stated in the paper.

The proposed use of adopted LAUTRO projections does not solve the problem of clarifying information presented to investors. Whilst different methods of calculating these projections exist, figures would be inconsistent between life offices, and it is notable that cases have been seen where policyholders have been presented with a surrender value quotation that exceeds a projected maturity value on the LAUTRO basis — on the same piece of paper. This might obviously mislead clients into believing that they would be better advised to surrender their policies instead of holding them to maturity. Thus, the very mechanism designed to protect the client has failed them. How can such meaningless figures be useful and informative to a client?

It is interesting that the author argues against the use of existing bonus rates in arriving at a figure to help assess the worth of a policy. Playing devil's advocate, I would suggest that, whilst past performance is not a guide to the future, it is known, and future performance is not. It is for that reason that I disagree with the choice to publish the statement in ¶10.6.7, where the author is making a subjective opinion of future returns, however correct that *might* turn out to be. Investors in equity or other investments consider whether to invest on the basis of an analysis of past performance, and an opinion of how that might extrapolate into the future. Knowing that the future is unknown, and will be influenced by a host of economic and other factors, they are prepared to invest at a particular price. Part of this opinion does not necessarily depend on predicted returns as numbers, so much as expected performance relative to alternatives. Moreover, most investors in the TEP market are sophisticated, or even professional investors, whose buying decisions will be based on more extensive research than merely looking at a sales list. On that point, I disagree with the author's earlier suggestion that financial journalists are necessarily examples of financially sophisticated commentators. Mr Robertson has capably illustrated this point.

Certainly, the legal risk to life offices, that the author raises in ¶12.3, is very real. As far as I know, banks join life offices in not being required to refer policies which might otherwise be surrendered to the TEP market. Yet the Bank of Scotland faced legal action for surrendering a policy that could have been sold at a higher price in the secondary market in 1996. If policyholders are not referred to the market by life offices, there is, presumably, a risk of similar action against them in some circumstances.

An understandable concern for life offices is the quality of the market, since they would not wish to refer clients to one that is poorly organised or policed. With this in mind, I find it somewhat surprising that trawlers are mentioned in such positive terms in this paper. The fact is that some trawlers and many of the companies they may approach for quotations are not regulated. Whilst they would argue that this is not necessary since they only deal through intermediaries, the intermediary does not have control of the situation, in that he may not know about certain of the potential buyers. The suggestion that the best deal for the vendor can be achieved through the best price offered from a trawl is seriously flawed. Terms and conditions vary enormously, and vendors could be kept waiting for longer periods than necessary or have their offers reduced late in the transfer process. The prospective buyer may even be insolvent for all the vendor or his IFA knows. Whether bids are received from trawlers or not, it is imperative that they are considered, not only by their size, but also by their source, and by the terms and conditions of the offer. The only acceptable answer for life offices must surely be to insist that all market participants are regulated, and, in the mean time, to discourage use of unregulated firms and trawlers, since referrals to such companies could give rise to embarrassing situations for introducers to their services.

The author is correct to highlight that large proportions of the market do not deal with trawlers, or

do so only on a restricted basis. He also states that the reason for this is the low acceptance rate because of competition. From my experience, the more frustrating element is that they are sometimes time consuming to deal with because of inadequate policy screening, leading to policies being presented that are not suitable for the market, and because inaccurate or incomplete information is supplied by them. We are also often sent the same policies directly from clients or their IFAs. This is an unsatisfactory and inefficient arrangement.

It would also be inappropriate for life offices to refer policyholders to only one or two market makers. Clearly, clients should have the opportunity for a variety of quotations to ensure that they are competitive. The only viable solution that addresses these issues is referral to the industry trade body, the APMM. In so doing, one referral leads to circulation to different members for a quotation.

Mr R. K. Sloane, F.F.A.: I endorse Mr Paterson's remarks about the shambles of illustrations. I, too, have suffered many hours in trying to unravel these sorts of figures.

I endorse the point that the formula maturity value basis has to be quite improper. I have always thought that when considering TEPs, and I have looked up some rates of investment return to justify what I felt must be the case. I took the position of a 20-year policy maturing now, where the same terminal bonus rate is used for the projection of a policy maturing, say, five years hence. The earliest five years drop out, and those five years from 1978 to 1983 had an average return of 19% p.a. If it were a 15-year policy, then the five years that are dropping out averaged 23% p.a. back in 1983 to 1987. So, these are the kinds of expectations that are implicitly being projected forwards for the next five years, which are obviously improper.

I am also concerned about the absolute rates of reversionary bonus and terminal bonus which are sometimes being used. Again, I would emphasise that all that really matters is the total return that is achieved on the policy. The actual numbers of the two separate components can be quite misleading. Yet we see, not only what I believe is quite proper smoothing of results of with-profits policies, but also the smoothing of the actual tables of terminal bonus rates, which I find rather extraordinary.

I repeat a plea which has been made several times in this discussion, and which I made some 3 years ago, for the disclosure of asset shares. It is certainly not necessary solely to benefit the TEP market, but for the general ease of advice to individual policyholders in taking out policies. For many years everyone in the advisory market has had to try to second guess what is happening in life policy products. I would urge, again, for the disclosure of asset shares. I would stress that these should be the unsmoothed asset shares. They must not be smoothed, because we want to be able to discern the degree of smoothing policy that is being applied by life offices onto the raw, unsmoothed asset shares.

I fully support the idea that life offices should be required to notify policyholders of the existence of the TEP market, but I was amused at the quotation, in ¶12.2.3, of the mutual life office which had already broken new ground in notifying its policyholders that "you may be able to sell your policy for its market value rather than its surrender value. The market value will be lower than the potential maturity value of the policy." This neatly avoided saying that the market value might be higher than the surrender value. So let us hope that any required disclosure will be rather clearer than that.

I am concerned about a conclusion made by the author, in ¶5.7, about tax. I recognise that the vast majority of investors are institutional investors, but at first I thought that the non-qualifying policy, which is top-sliced, might well result in less tax on the individual than the capital gains tax of the qualifying policy. However, it is because top-slicing is applied from the inception of the policy, and not just from the date of purchase of the TEP, that the non-qualifying policy is likely to result in a higher tax charge, as stated in the paper.

Mr P. McGurk, F.I.A. (replying)**:** We have had a whole spectrum of views, and it is good to have such a large turnout from within the TEP fund and TEP market fraternity. I accept the criticism of a certain lack of rigor at one point. This harks back to McGurk (1996), where I did some estimated asset share calculations. I did not show those sorts of figures again, because of the improvements in the stock market recently.

It is not just the private direct investors who are affected by disclosure issues. People who invest in funds are influenced by the projections that are given by those funds at the time that they are

launched. One fund that I know produced some projections based around discount rates. That is the case for other funds as well, showing full sensitivities to bonus rate movements. The reason for this approach is basically lack of any other sort of information to give any sort of projections at the time that the funds are launched.

Perhaps one way forward is giving investors the basic 5% and 10% PIA projections, if they are sorted out to be reasonably consistent and best estimate. It may be best to accompany those with something on the lines of: "if investment performance was 5% and 10%, the returns to you would be *x*% and *y*%".

I also noted Mr McLean's statement that only 5% of the market consists of private investors. I think that very many of the remainder are advised by IFAs. Are these IFAs so clued up? I accept that the people who are advising funds obviously are, but are the IFAs advised by actuaries? Do they really understand the issues here?

I support both Mr Taylor and Mr Sloane in their call for more information to be provided on asset shares. I alluded, at the start, to being worried about the black box approach to with-profits and being patted on the head by offices and being told: "Look, we are paying fair surrender values; we are paying fair maturity values". There has long been a suspicion that certainly some offices are paying unsustainable payouts at maturity, perhaps because they do not have a great deal of maturity outgo in a particular year. I would welcome more asset share information to be able to judge for myself whether that is true or not.

The President (Mr P. H. Grace, F.F.A.): We have had a fairly lively and very worthwhile discussion, which justifies the author slimming down his paper. Perhaps that opened the topic up for more comments. We have identified a number of issues that require attention, including action by the regulator. As indicated by Mr Kipling, in his written contribution, the profession is prepared to assist in that work.

The discussion would not have been possible without the paper prepared by the author. I ask you to join me in thanking him.

WRITTEN CONTRIBUTIONS

Mr A. J. Clarkson, F.F.A.: I attended the Faculty meeting and listened with interest to the discussion, but I found myself somewhat surprised by what I was hearing. I expected to hear various comments about the recognised flaws in the TEP pricing methodology, as ably demonstrated by Mr Robertson. In reality, I heard this one comment which concentrated on the pitfalls of this methodology, and numerous comments defending this methodology and projecting the benefits of the TEP market. I do not believe that this was a representative view of the majority of the audience, and feel that it is important that it is not reported as representative of the views of the majority of the profession. I would, therefore, wholeheartedly like to add my support to the aforementioned comments expressed by Mr Robertson.

I also have no doubts that the market is beneficial to those selling their policies if they can achieve higher amounts than the surrender values under their policies. My concerns relate to the value for those purchasing these TEPs. If life offices pay markedly less than asset share on surrender, then there may, indeed, be some benefit in these policies. What is important is that any benefit can be compared on a consistent basis with alternative forms of investment.

As Mr Robertson said, if we project forward a figure at a higher rate than we subsequently discount it, we will arrive at an amount higher than our original figure. This is no great surprise. The projected benefits underlying the FMV (which assumes continuation of current bonus rates) would require a gross investment return of between 14% and 15%. Is it then reasonable to use a risk discount rate of 12% to find the present value? Would the purchasers of these TEPs consider 12% a good return on their money, given comparable returns on direct investments of around 15%? These are questions which only the TEP investors can answer, but they, at least, ought to be aware of this sort of information.

If we are not happy with the current approach, then the question of a viable alternative has to be

considered. There were several comments at the meeting that life offices should disclose the asset share under the policy, without any dissenting voice. I can see why this would be useful to consultants. I also agree that the performance and benefits under a conventional with-profits policy are not transparent. I find this the single hardest question from a policyholder to answer. To my mind this is the biggest problem with such policies. They rely on the policyholder's trust, in particular trust in the Appointed Actuary. In today's world, with an ever increasing pressure for more disclosure of information, there seems to be an ever increasing unwillingness to trust the life office to pay out a fair amount. Having said that, I am not convinced that disclosing asset share is the solution. Do we honestly believe that policyholders would be happy to receive an amount less than asset share when smoothing worked in that direction? What would be the impact of this disclosure of asset share on the future smoothing of payouts? I cannot pretend that I have an answer to the issue of explaining the performance under a with-profits policy, but I think that the profession ought to be very careful before *recommending disclosure of asset share.*

I am in favour of incorporating projected maturity benefits on the PIA basis into TEP sales. This ought to enable TEP purchasers to make a reasoned decision on the price which they are willing to pay, based on the projected policy proceeds under the policy, given the level of future investment returns which they expect. The use of this method, however, is dependent on these projections being realistic. I agree with the speakers who commented that life offices which do not regard their existing business projections as realistic (given the stated assumptions) are giving their policyholders unreasonably low expectations. This cannot be in the policyholders' interests, and does not appear to be a reasonable approach. These projections ought to use the asset share (as calculated on a basis consistent with that used for maturities) as a starting point, and ought to be a best estimate of the maturity value, given the stated assumptions. However, the driver for this should be existing business projections in general, and not the needs of the TEP market.

I also have some sympathy with the speakers who have commented that offices currently use a variety of different methods for these projections, making it very difficult to interpret the results. To my mind the current situation is not surprising, given the lack of guidance on such projections and the numerous areas of subjectivity involved. For instance, how should short-term projections reflect current maturity payouts in excess of asset share? Over what future time period should we assume that the current ratio at maturity will change? To what extent should projections reflect the smoothing of maturity payouts? Given a year of very high investment returns, the asset shares, and therefore projections, will increase markedly, whilst the eventual impact on final maturity payouts is likely to be much less. Is it reasonable for projections to give the impression that the prospects for maturity payouts have improved significantly? Should projections reflect any planned future allocation of miscellaneous surplus to asset share? This would appear reasonable if we are aiming for a best estimate projection, but how can this be done on a consistent basis between offices? How frequently should the basis be updated? In addition to the above problems, it is all too easy for a policyholder to view a with-profits projection in the same light as a unit-linked projection, and to forget the fact that the actual payout will depend on future bonus rates and will be after any smoothing which is applied.

I think that the general issue of existing business projections is a significant area for the profession to address. Given the number of issues involved, it is not surprising that different offices adopt different approaches. In order to serve a useful purpose, however, we ought to ensure, as far as possible, that offices adopt consistent approaches. Perhaps then it will be possible for TEP providers to make sensible use of these projections. I look forward to seeing the results of the Life Board Regulation Committee's survey, and hope that this acts as the catalyst for a standardisation in approach.

Mr G. M. Cottingham: Figure 5 is now out of date. The relevant figures since March 1996 are as follows:

Date	5-year TEPs	10-year TEPs	15-year gilts
September 96	11.3	12.3	7.92
March 97	11.2	12.1	7.75
September 97	11.3	12.2	6.54

It is, therefore, noteworthy, in the context of a discussion about fair valuation and presentation of investment information, that the gap between gilts and the market has widened over the same period that expectations of lower returns have become more widespread. This reinforces the points about the risk discount rate and the transparency of the existing market valuation method which I made in my earlier contribution at the meeting.

Mr M. D. Thornton, F.F.A.: I intended asking the following question in the discussion, but time did not permit. If the purchaser "will not, in most cases, attempt to ascertain whether the life assured is still alive after purchase" (see ¶4.2.3.), does this mean that life offices have on their books an unknown number of policies where the life assured has actually died? If so, what does this do to the figures that they return to the CMI Bureau — overstate the exposed to risk and understate the deaths, in both cases to an extent which may, or may not, be significant? No one knows. Are these CMI figures still worth collecting and graduating with such a fundamental flaw in their make-up?

The author subsequently wrote: I have now had a chance to study the comments made at the meeting in more detail. In retrospect, it was disappointing that, with the notable exception of Mr Robertson, so little from the life office perspective was heard at the meeting. With this in mind, I welcome the written contribution from Mr Clarkson. In particular, I am surprised that nobody sought to justify or explain some of the figures in Table 1.

I have now had some time to study the comments of Mr Kipling, based on the research carried out by the Life Board Regulation Committee. If I am interpreting the comments correctly, the results of the second survey seeking numerical data for the leading offices featured on the TEP market showed that their maturity value illustrations were, broadly, best estimates based on current asset share. The results also showed, for policies with outstanding terms of 5 years, that the current bonus projection exceeded the 10% PIA projection by an average of 38%. I am sure that, in the current low inflation environment, most actuaries might place 10% p.a. at the optimistic end of the range for gross returns over the next five years. Putting this in the context of the TEP market, where market discount rates were around 11% p.a. at the time of the survey, I reckon that this would give a final return to a TEP purchaser of around 4% — and this on an optimistic assumption! The effect on the returns for the case which had an 85% excess does not bear thinking about.

The result, that the offices would require an after-tax return of at least 14% p.a. to produce returns equal to those obtained using unchanged bonus rates, was also a very useful illustration of the skewed risk of future bonus rate changes. It is this skewed risk that purchasers must be made aware of, and I do not think that merely illustrating the effect of bonus rate changes does this.

The research did reveal the inconsistency in approach to mid-term projections, and I support the speakers who pointed out that this had much wider implications than just for the TEP market. I believe that illustrations given should be genuine best estimates.

Mr Beale, as ever, put the case of the TEP market very clearly. He points out that the paper concentrates on the protection of the investor as opposed to the treatment of the original policyholder, and I would not dispute that. The reason for this was not so much based on my perceived importance of the two issues, but on the nature of the issues. I believe that the actuarial profession has a unique insight into the technical issues surrounding the information given to investors, and that it is uniquely placed to assist in the mitigation of any problems with the current system. The paper, therefore, concentrated on those issues.

Mr Beale mentioned an analysis of his own company's maturity results, and quoted an average return at 9.38% for policies maturing in 1997 and traded over the last seven years. This sounds attractive when compared to current fixed-interest returns. However, we have to put this into context. Most of these policies were presumably purchased in the early part of the period, when gilt rates were much higher than today, as Figure 5 demonstrates. The purchaser could have done better (pre-tax) in many cases by purchasing a gilt, and would have slept a little easier in the meanwhile. Secondly, these are returns on an investment which, in most cases, is backed primarily by equities. These returns have been achieved against a bull market in equities. My worry for investors is what would have

happened, or, more to the point, what could happen, to returns if equity returns become more modest. The figures presented by Mr Kipling throw some light on this.

Mr Beale also states that he has examined prices over the last $2^1/_2$ years, and that they have not moved up by more than 5% above the level of April 1995. I am not sure what 'prices' are being compared here. TEPs do not readily lend themselves to a comparison of prices over time. Following a single policy over time is complicated by premium payments. I can only refer to the net asset values of publicly available TEP funds at 31 December 1997 with those applying at April 1995, and the increase is of the order of 30-40%. This would, very broadly, reflect the increase in price of the policies held after removing the effect of premiums paid over the period, since these are funded from within the funds themselves. I am sure that this was not the type of price movement that Mr Beale was referring to, but it does illustrate the potential for confusion when referring to price movements.

I welcome the statement that the market makers look forward to working with the profession, the regulators and life offices. In view of the polarisation created by the press release referred to by several speakers, it is good to see a willingness to work together on the issues facing the TEP market.

Mr McLean makes many observations on the use of asset shares and their deficiencies when used to value secondary-market policies. While I agree with them generally, I cannot believe that their availability, or, more practically, the availability of maturity projections based upon them, would not benefit investors as a whole, whether institutional or private. I would not argue that asset share is the correct price to pay, but surely its knowledge, direct or indirect via best estimate maturity projections, would be an important factor in determining the price that an investor was willing to pay.

As Mr McLean rightly points out, the profession should not set itself up as sole arbiter of value, but it should make its voice heard on the information being given to potential investors, and I am glad that this is now happening.

Mr Paterson raised an interesting point which I had not mentioned in my paper, namely drawing attention to the spectacular growth of the TEP market coinciding with the introduction of the two-rate LAUTRO projection system for new business. I, too, cannot believe that it is a complete coincidence. It is not the only factor, but it certainly is a factor in the success of the market.

Both Mr Taylor and Mr Sloane called for a greater disclosure of asset share information, and I would support them in this. The question is how and where this should take place. I do not feel that a regular statement of asset share to policyholders is a good thing, as it may only confuse, particularly if their final returns are smoothed down rather than up. Some specimen disclosure of asset shares in relation to both surrender values and maturity values in DTI returns would be useful, and the debate about the role of asset shares in the statutory valuation of with-profits business is relevant to this.

I have conveyed Mr Thornton's comments on mortality experience to the appropriate people within the CMI Bureau, within which I have a personal role. Similar comments have been received by the Bureau in the past.