THE EFFECT OF LEGISLATION ON LIFE OFFICE VALUATIONS

K. Muir McKelvey, Ken Oldham
and P.E. Felton (U.K.)

1. INTRODUCTION

1.1 In this paper we discuss the effect on the valuation of life offices in the United Kingdom of legislation whose enactment lies in the recent past or the imminent future.

1.2 We are conscious of the fact that in the U.K. life companies in particular and insurance companies in general have been much less bound by legislation than their counterparts in many other countries. For this reason many of our remarks will no doubt be related to subjects as to which we are beginners by comparison with actuaries in Australia, Canada, the United States and Europe outside the U.K.

1.3 We consider separately three types of valuation, namely a statutory valuation, a valuation for purchase and a valuation in connection with a liquidation. The statutory valuation itself, of course, could be viewed either as a test of solvency or a vehicle for determining how much surplus to disclose for distribution by way of both bonuses to policyholders and dividends to shareholders.

1.4 Since valuations for statutory purposes occur much more frequently than either of the other two, we consider first such valuations in the light of the Insurance Companies Act, 1974 (to which we refer as "the 1974 Act") together with its accompanying regulations. Some of these have been published while others are, as yet, unpublished.

2. STATUTORY VALUATIONS

2.1 Until the 1974 Act, there was no question of a statutory minimum basis and the actuary responsible for signing the valuation report for a U.K. life office was free to choose such basis as he thought fit although the Department of Trade has always had the power to intervene in a case where the Department has had reason to question the bases underlying the valuation results.

2.2 Under the 1974 Act, however, there is provision for regulations to be published which determine the values at which both assets and liabilities may be taken for the purpose of a statutory valuation of an insurance company's long term business.

2.3 The regulations relating to assets have already been published and already apply to statutory actuarial valuations. The asset regulations lay down values at which various categories of investment may be taken into account for the purpose of a statutory actuarial valuation. Briefly these are as follows:–

(1) Quoted equities at middle market price.

(2) Quoted debentures at middle market price.

(3) Securities issued or guaranteed by any government or public authority at an amount which would reasonably be paid by way of consideration for an immediate transfer or assignment.

(4) Unit trusts at the price at which the managers would purchase the holdings.

(5) Shares in a dependent company at net asset value as if the company were in liquidation.

(6) Unquoted shares by multiplying the price earnings ratio in the F.T. Actuaries Index for the relevant Industrial Group by the company's profit.

(7) Land and Property at an independent valuation.

(8) Debts and other rights (this includes bank deposits) as follows:–
If the debt falls due within 12 months then the value is the amount which may be reasonably recovered. If the debt falls due in more than 12 months, it is the amount which would reasonably be paid for an immediate assignment.

(9) Equipment as follows: Computers are to be written down annually at the rate of 25 per cent of cost price. Other office equipment is to be written down annually at the rate of 50 per cent of cost price.

Category	Individual holding, per cent	Aggregate per cent
Shareholdings in fellow subsidiary	2½	no limit
Indebtedness to the company by any other company	2½	no limit
Land and Property	5	no limit
Publicly Quoted Investments	2½	no limit
Other indebtedness (including mortgages)	2½	10
Unquoted equities	2½	10
Indebtedness of physical persons	½	2½
Computer	–	5
Office Equipment	–	2½

Except for quoted equities and debentures where the values shown above must be those taken into account, the values shown are maxima. There are also further regulations laying down the extent to which assets may be taken into credit, as follows. The percentages are percentages of the total permitted value of assets.

2.4 The regulations relating to liabilities, however, are at June 1976 still the subject of some discussion and have been in existence in draft form for nearly two years. The appendix to this report sets out the proposed regulations in the form of a consultative note. Almost any actuary would agree with the hypothesis that assets and liabilities should not be looked at separately but together. We have it on good authority that the regulations prepared by the Department of Trade in respect of assets and liabilities have been considered together and indeed prepared by the same personnel but it is disappointing that further indication of the awareness of the authorities that assets and liabilities are inextricably linked could not have been shown by publishing the regulations simultaneously.

2.5 It should be stressed that the Act does not insist on any particular valuation basis in connection with liabilities but rather insists that the basis adopted by the actuary must be no weaker than that set out in the regulations. Whereas in most cases the regulations lay down the maxima at which certain assets can be brought into account for the purpose of the actuarial valuation, there are as mentioned in paragraph 2.3 some classes of asset in regard to which the regulations prescribe exactly the value at which they must be taken.

2.6 The consultative note regarding valuation of liabilities is based on six principles for valuation which may be summarised as follows:

(1) The liabilities should be valued by a net premium method or on some other basis producing a greater reserve.

(2) An appropriate Zillmerised reserve should be acceptable in order to allow for initial expenses.

(3) Adequate margins over the current rate of expenses should be kept in the valuation of liabilities in order to provide for future renewal expenses.

(4) Appropriate recognised tables of mortality should be employed.

(5) The valuation of the liabilities should be on rates of interest lower to a prescribed extent than those implicit in the valuation of assets with due regard to the incidence of taxation.

(6) The mathematical reserve under a contract must never be less than any surrender value guaranteed under that contract.

2.7 In this paper we are not primarily concerned with discussing the suitability of the proposed regulations relating to liabilities in conjunction with the existing regulations relating to assets for a statutory minimum basis since we are primarily discussing the effect of the regulations as a fait accompli on life offices. In passing, however, we would mention that we do not think that the net premium method of valuation can possibly be regarded as a satisfactory test of solvency because the sensitivity of the value of liabilities to an increase in the valuation rate of interest is much lower than that which applies to the value of matching assets. It does seem to us that the only suitable test of solvency is a gross premium method of valuing the liabilities with, needless to say, consistent treatment of the assets. In times of high rates of interest, the gross premium method tends to produce larger negative values but, provided these are treated prudently, this would not seem to be a valid criticism of the gross premium method.

2.8 It is interesting to note that the proposed regulations for valuing liabilities cater for principle (5) above by requiring that the valuation rate of interest be exceeded by the rate being earned on the assets at the valuation date by a margin (either 10 per cent of the yield on the assets or an absolute difference between the yield on the assets and the assumed yield of 0.8 per cent before any allowance for taxation, whichever is the greater). Except for the purpose of valuing single premium business it would probably be a widely accepted actuarial principle that the valuation rate of interest should reflect the yield expected to be earned on future investments (with or without a margin as appropriate) any excess or shortfall over the valuation rate inherent in the existing portfolio being allowed for by valuing the existing assets on a basis consistent with that used for valuing the liabilities, provided that such an approach does not lead to guaranteed surrender values being uncovered. In most cases, particularly at the present time of high interest rates, the adoption of a rate of interest for valuing annual premium business equal to the yield on the fund suitably adjusted for the margin implicit in the regulations would be far from prudent and would involve the use of a valuation rate of interest in excess of that which most actuaries would choose on subjective grounds. The regulations, however, do get round this by imposing a further restriction that the valuation rate of interest must, in any event, not exceed that which the actuary, exercising his own judgement, deems appropriate.

2.9 Turning now to the effect of the proposed regulations, it is evident that they impinge particularly heavily, as regards a test of solvency, on a relatively new life office which has transacted a large amount of conventional annual premium business with a corresponding new business strain.

2.10 Effectively, the regulations demand that a life office hold a reserve close to the conventional level of unguaranteed surrender values even in times when levels of inflation and Stock Market prices demonstrate the very reason for such surrender values not being guaranteed. We would have thought indeed that many life offices, including some not as young as those mentioned above, would be holding valuation reserves lower than present basis surrender values on the grounds that for commercial reasons they were prepared to take a relatively small loss on surrender provided there was not a great incidence of surrenders. It is interesting to note that in many countries where there is a statutory minimum valuation basis which is effectively a net premium reserve basis, there is also a predominance of guaranteed surrender values payable on conventional annual premium policies. Such guaranteed surrender values are offered only to a very limited extent

in the United Kingdom.

2.11 The regulations are most stringent in their effect on new business and increase considerably the new business strain incurred in writing recurring premium business where commission is paid on indemnity terms since offices are precluded from including as an asset any amount due from an agent in the event of lapse. It follows that indemnity commission must be funded out of free reserves and since brokers are not renowned for passing business to offices who will not grant them indemnity terms we can expect the larger offices to benefit at the expense of smaller ones with limited free reserves.

2.12 The problems facing the actuary would seem to differ depending upon whether he is concerned with a valuation which is effectively to demonstrate solvency or whether he is carrying out a valuation the main purpose of which is to determine the amount of surplus available for distribution to with profit policyholders and shareholders. The problems in the case of the former (which would normally relate to a new office) have been indicated above but it is felt that the regulations also impose difficulties on the actuary concerned with distributing surplus. Even without the regulations the problems of equity between different generations of with profit policyholders and shareholders have taxed the actuarial profession. It has often been mooted that the bonuses of with profit policyholders could be maximised by an office ceasing to write new business and operating as a closed fund since in a continuing office the new business strain is effectively financed out of reserves which could otherwise be distributed to with profit policyholders. The additional restriction of the regulations can only serve to make the actuary's task of distributing surplus equitably even more onerous. Until the regulations were introduced the general public could at least form some opinion of an office's likely future bonus rate by reference to the pattern of bonuses declared in the past. The future bonus expectation of existing with profit policyholders must now in some instances be affected by the regulations.

2.13 The 1974 Act includes in the concept of insolvency not only the failure of a company to be in a position to meet its contractual liabilities but also its failure to be able to meet the "reasonable expectations of present and prospective policyholders". There would only appear to be two areas where policyholders might reasonably expect to obtain something in excess of a contractual benefit and these are either by way of bonus on a with profit policy or by way of an unguaranteed surrender or paid up value. What on earth is meant by a reasonable expectation in this context, however, is anybody's guess. Recent experience in the U.K. would tend to suggest that, on the surrender value question at least, it is not considered by the authorities that a drastic reduction in the level of non guaranteed surrender values constitutes an infringement of the reasonable expectations of present and prospective policyholders. One can only assume, therefore, that the phrase is limited to bonuses on with profit policies but again the extent to which an existing bonus rate would have to be reduced before it was considered that reasonable expectations had been prejudiced is a matter for conjecture and presumably for the court ultimately to decide. A possible lower limit below which the bonus should not fall should be such that the maturity value of the policy was equal to the non profit sum assured for an identical non profit contract with the same premium. Even this, however, would seem to be an unduly stringent lower limit since it would logically deter anyone from affecting a non profit policy since the same outlay on a with profit policy would in value for money terms imply "heads I win, tails you lose" provided the Company did not go into liquidation.

2.14 When carrying out a statutory valuation it can only be prudent for the actuary to set up reserves which reflect the policyholders' reasonable expectations but since it is by no means clear what those expectations are, the actuary can be considered as being in an untenable position. The more one considers it, the more one becomes convinced that this particular item of the legislation is a disastrous piece of drafting.

2.15 One area of insurance which probably does not come under the heading of conventional, though it can only be a matter of time before it does, is unit linked business where the amounts payable to policyholders are linked in some way to either an internal, external or notional fund. The contracts in this category which are most commonly marketed are by recurring premium and these fall into two categories which are referred to in the U.K. as Category A and Category B. Category B contracts themselves fall into two groups in that under early Category B policies the whole of the income from the fund to which benefits are linked was retained by the office. It was recognised, however, that this constituted a conflict of interest between the office and the policyholder so that more modern Category B contracts involve the retention by the office of a fixed percentage of the fund to which benefits are linked each year irrespective of the actual income derived from the investments of that fund. Under either of these groups there was implicit some form of a guaranteed yield to the policyholder albeit a low yield. Under Category A contracts, however, after a specific deduction from premiums to meet expenses of management, mortality and any maturity guarantees, the remainder is invested in accumulation units under which the income is automatically reinvested for the benefit of policyholders. For Category B type policies the valuation treatment is similar to that adopted for conventional annual premium business except that usually a guaranteed surrender value is included in the contract and must, therefore, be taken into account as a minimum reserve. Such guaranteed surrender value, however, is normally linked to the value of units and as such does not cause the sort of problem normally experienced with guaranteed surrender values. Category A contracts, however, do not normally involve the conventional valuation approach and the reserve is usually taken simply as the value of units deemed allocated plus whatever is thought necessary to meet that part of mortality and maturity guarantees which would not be met from future deductions from premiums. There can be a new business strain problem but this is normally met either by a large deduction from the early premiums to arrive at the amount deemed to be invested for the policyholder or alternatively by surrender penalties which allow the initial expenses to be clawed back over a relatively short period.

2.16 It can be seen that in respect of Category A type

policies, the regulations have little effect since the asset regulations referred to above do not apply to them and the liability regulations are designed in terms of conventional policies and this may well prove to be an inducement to young life offices to transact this type of business solely. There are other asset regulations covering this type of business but these only relate to the type of investment allowed rather than to admissible values. The office, however, without a large estate and whose portfolio comprises solely or almost solely Category A unit linked business is particularly vulnerable to high levels of inflation and low Stock Market values since the former may render explicit loadings in the premiums inadequate to meet the actual expenses and the latter will increases the cost of any death benefit or maturity guarantees. In the case of more conventional business, of course, the higher interest earnings on new investments inherent in low Stock Market values should provide a margin to meet expenses at higher levels than allowed for in the premium basis but in the case of the Category A (and indeed many Category B) unit linked policies such excess interest income automatically goes to the benefit of the policyholder. Most existing U.K. offices whose business is predominantly unit linked, employ actuaries who are probably well aware of the potential problem which is made even more intense in the event of a fall in new business which itself tends to be a result of low Stock Market values following from the traditional tendency of small (and not so small) investors to buy when the market is high rather than when it is low. It is quite possible, however, that, attracted by the lesser impact of the regulations on this type of business, new offices setting up may concentrate on it and, without the experience gleaned from the conditions of the last couple of years, find themselves in some difficulty, particularly without the buffer of a conventional portfolio.

2.17 It is worthy of mention that the requirement to take assets at market or realisable value is not an unreasonable one, provided that the rules for valuing liabilities are consistent but, as mentioned earlier, it is undoubtedly a strain on margins in a statutory valuation when market values are low and interest rates correspondingly high. Perhaps, however, of even more significance to many existing companies are the limits on admissibility of assets of various types. The two which would probably cause the most difficulty to existing U.K. offices are the 2½ per cent limit on a loan to any individual company and the aggregate 10 per cent limit on "other indebtedness" including mortgages. Many smaller companies could well have made loans extremely well secured as to both capital and income where the amount of each such loan exceeds 2½ per cent of the company's assets. These could be perfectly proper investments and that particular piece of the regulations does seem to be legislation for its own sake without any attempt to consider the various different circumstances which might apply. It is obvious, for instance, that loans could conceivably prove difficult to realise before maturity so that if such assets are held to cover liabilities on policies which have guaranteed surrender values, the situation is completely different from those where a company is holding them as assets against, say, immediate annuities where there are no guaranteed surrender values. In the case of the 10 per cent aggregate limit on mortgages, many companies have followed the perfectly sound practice of raising capital by selling annuities and lending part of the monies to house purchasers who take out a corresponding endowment policy. Quite a number of companies might well be affected by the 10 per cent aggregate limit on mortgages so that this particular aspect of the regulations would appear to be not only unreasonable but positively anti-social.

2.18 To summarise this section of the paper, we would make the following estimations as to the effect of the legislation.

1. New life offices will be deterred from writing conventional business.
2. Number 1 above will reduce the level of competition in the conventional market.
3. There will be a further reduction of competition arising from the larger offices' greater ability to pay commission on indemnity terms.
4. The lesser impact of the regulations on unit linked business may encourage the spread of such business to the exclusion of more conventional business and sustained levels of inflation could cause severe solvency problems.
5. Offices will be forced to hold reserves close to the level of current unguaranteed surrender values and there may be a step towards guaranteeing surrender values on conventional policies albeit at modest levels.
6. With profit policyholders can expect the emergence of their bonuses to be delayed even further than they have been in the past.
7. Some additional reserves will have to be credited to cover policyholders' reasonable expectations (as opposed to contractual rights) at such level of such expectations as the Court, if it ever comes to that, deems to be "reasonable". We feel that this particular aspect of the regulations will prompt offices to apply to the Secretary of State under Section 63 of the Insurance Companies Act, 1974 which empowers the Secretary to waive certain of the regulations where he deems it appropriate.*
8. Many offices will find difficulty in coping with the asset admissibility regulations and there may be many applications to the Secretary of State under Section 63 of the Insurance Companies Act, 1974.*

*Admittedly limited experience to date suggests that concessions under Section 63 will be modest at best.

3. VALUATIONS FOR PURCHASE

3.1 Before considering the effect of legislation on the valuation of life offices for purchase, we could perhaps consider the approach one could adopt in the absence of legislation in putting a value on a life office and in this connection we consider three possible approaches.

3.2 Any valuation of a life office for purchase must be considered as representing a subjective view and the only real test as to the worth of shares in a life office is to establish a market in those shares large enough for exchanges to take place regularly.

3.3 The three possible approaches which we consider are as follows: –

1. A projection with some allowance for new business of valuations on the statutory bases is carried out and the estimated future available distributions of surplus to shareholders and future income on shareholders' capital and reserves are discounted back to put a capital value on estimated future "dividends".
2. A projection with some allowance for new business of valuations on realistic bases is carried out and the surpluses emerging on those bases together with future income on shareholders' capital and reserves are discounted back. Effectively one is looking here at the emergence of "earnings" which are either distributed by way of dividend or which serve to increase the life office's estate.
3. A direct determination of the net asset value of the company is made as in paragraph 3.6 below. To this value would be added values of other items which a potential purchaser might take into account.

3.4 Under 1 above the legislation evidently dictates the bases on which the successive valuations in the projection would be carried out and the emerging dividends to shareholders (which would, of course, depend upon the proportion of actuarial surpluses which could, under the company's Memorandum and Articles, be distributed to shareholders) would be discounted at a rate consistent with dividend yields on similar investments.

3.5 Under 2 the earnings would be discounted back at a rate of interest consistent with earnings yields for similar shares but the impact of the regualtions here would seem to be a form of dividend restraint on the part of the Government. This factor would presumably be taken into account in putting a value on the company.

3.6 In most cases we would consider the third approach to be the appropriate one though consideration of approaches 1 and 2 should not be omitted. The following are the items which would make up the total value of the equity of an insurance company:

(a) The shareholders' capital and free reserves.
(b) The excess of the long term insurance funds over the value of the liabilities on a realistic basis.
(c) The goodwill or potential profit from new business attributable to the existing organisation.
(d) The value of an organisation and authorisation from the Department of Trade.
(e) The amount, either positive or negative which reflects the willingness of the seller or buyer to sell or buy respectively.

The total value so determined may then require some downward adjustment if the purchaser considers that the effect of the statutory requirements will be to necessitate the injection of further capital which will be tied up for many years.

3.7 3.6(a) above is readily identifiable from accounts and would appear to be little affected by the legislation.

3.8 3.6(b) includes an element which must be regarded as ear-marked for policyholders. The element available to a purchaser of the Company's shares can be estimated in a variety of ways but the approach which we favour is to take the market value of existing assets and convert these into fixed interest securities at market value matched by term and nature to the liabilities. The market value of the remaining assets, after matched securities have been purchased for all liabilities, is effectively the surplus and the proportion which is available to shareholders can usually be identified by reference to the company's constitution. Any unmarketable assets would need special attention and a suitable margin would probably be deducted from their value.

3.9 3.6(c) is a highly subjective item. It would normally be the discounted value (back to the date of purchase of the company) of the capitalised profit inherent in every policy expected to be acquired in the future as a result of the existing owner's efforts. In practice this could well involve looking at the current level of business over, say, a two year period and assessing its profitability on a realistic basis. Evidently this could well be affected by the legislation which has tended to increase new business strain and, therefore, the level of financing required for new business. The value placed on this item as compared with the value which might have been appropriate in the past has undoubtedly, therefore, been reduced.

3.10 3.6(d) and 3.6(e) can perhaps be considered together. These again are subjective items but we do feel that the way in which legislation is making it more and more difficult for offices to start afresh may put a premium on existing life offices. As was mentioned in the earlier section of this paper, however, since legislation does not impinge as heavily on unit linked business as on conventional business, it may be that higher prices will be paid for newish unit linked offices even though perhaps for the wrong reasons since such offices could well, in our view, turn out to be those most vulnerable to adverse financial conditions in the future.

3.11 We feel on balance that the market in small life offices will shrink in the next few years and will be confined merely to those offices which will be acquired by large financial institutions prepared to inject large amounts of capital and who acquire an existing office purely as a means of obtaining authorisation somewhat more quickly than would have been the case starting from scratch. There may still be a market in the medium sized offices but many of these are public companies and as such are less likely to be available for sale.

3.12 To summarise this section, the overall effect of the legislation on life office valuations for purchase could be to reduce the value of a life company because declarations of dividends may be delayed due to legislation, yet at the same time to put a premium on well established life offices.

4. VALUATION FOR THE PURPOSE OF LIQUIDATION

4.1 The rules for valuing policies for the purpose of determining the value of a policy in winding up an insurance company are refreshingly short. This reflects the fact that they have emerged unscathed through successive legislation on insurance companies since the last century.

4.2 Unfortunately, as a result of that they fail completely to cover the range of policies now available.

4.3 The rules are as follows:–

Life policies

1. (1) The value of a life policy shall be the difference between the present value of the reversion in the sum assured according to the contingency upon which it is payable, including any bonus or addition thereto made before the commencement of the winding up, and the present value of the future premiums.

(2) In calculating such present values interest shall be assumed at such rate, and the rate of mortality according to such tables, as the Court may direct.

(3) The premium to be calculated shall be such premium as according to the said rate of interest and rate of mortality is sufficient to provide for the risk incurred by the office in issuing the policy exclusive of any addition thereto for office expenses and other expenses (i.e. a net premium on basis (2)).

Annuities

2. An annuity shall be valued accordingly to the tables used by the company which granted the annuity at the time of granting it, or, where those tables cannot be ascertained or adopted to the satisfaction of the Court, according to such rate of interest and table of mortality as the Court may direct.

4.4 In recent history the rules have only had to be applied to determine policyholders' claim values in a winding up on one occasion although they are being used in one other case where a "scheme of arrangement" is being devised to rescue policyholders of an insurance company in trouble (but with some reduction in benefit) and the policyholders must then decide between the "scheme of arrangement" and a winding up. The law is not clear but it appears that the voting rights of each policyholder to determine which course of action is to be taken are proportionate to the value of the policyholders' policies for the purpose of which the value is the claim value under a winding up.

4.5 We hope that there will be no further cases where failure of a life company will make it necessary to apply this particular part of the legislation but we also hope that revised regulations, mentioned in the Insurance Companies Act, 1974, will reflect the types of policy not envisaged in the last century and will soon be available in case they are needed.

4.6 It is apparent from the legislation that the types of policy which are not catered for are as follows:–

(a) Unit linked business.

(b) Deferred annuities subject to annual premiums.

(c) Policies with guaranteed surrender values.

4.7 The one case which has been through the Court and to which the rules had to be applied treated the particular policies which are not catered for in the rules as follows:–

(a) The winding up claim value for unit linked policies was taken at whichever was the greater of (A) the winding up claim value for a non profit policy for the guaranteed minimum sum assured and (B) the value of units allocated to the policy. The value of units allocated was in most cases the guaranteed surrender value under the policy but could not be described as such since the rules make no provision for them. The sum assured, however, is specifically mentioned in the rules and is usually defined as either the guaranteed minimum or the capital value of units allocated if greater. Although not payable until death or maturity there is no reason to discount the value of units at any other rate of interest than one would assume for their accumulation to the maturity date or death. This approach leads to a minimum claim value of the value of units allocated.

(b) Deferred annuities subject to annual premiums were valued in the same way as life policies subject to annual premiums by stretching the concept of "rate of interest and table of mortality" to include a policy value table ($t^{v}x$) so that the annuity could be multiplied by a single figure from the table which depended only upon the policyholder's age of entry, current age and a rate of interest and rate of mortality.

(c) Guaranteed surrender values caused a problem in that it was not felt that the Court would accept a situation whereby the contract was valued on a prospective basis subject to a minimum of the guaranteed surrender value. Most of the guaranteed surrender values related to the guaranteed income bond policies which are a combination of a deferred annuity with a cash option at vesting and a temporary annuity, thus effectively giving a level income for a defined period with a return of capital at the end of the period, subject to guaranteed surrender values meanwhile. The problem was overcome by valuing the contracts on the original premium basis as envisaged in the rules rather than on a basis reflecting current conditions which in all cases meant that the guaranteed surrender value was exceeded. We would not, however, regard this approach as generally entirely satisfactory since had policies been written on very much lower rates of interest than those prevailing at the time of the winding up, inordinately high claim values would emerge. The Court did indicate, in the case of immediate annuities, the view that a claim value which would if paid in full have enabled an annuitant to purchase a replacement annuity considerably higher than the existing annuity would be unacceptable and for this reason accepted the basic criterion that the rate of interest and table of mortality for annuitants ought to be rates based on conditions at the time of winding up. For the particular case of income bonds, however, the premium basis was acceptable.

4.8 Although the rules do cater for conventional life policies we would prefer to see a gross premium basis adopted on realistic assumptions as to mortality and interest but if a net premium basis were felt necessary,

since the solvency regulations are on a net premium basis, then at least there should be allowance for Zillmerisation of the net premium reserve.

4.9 The revised rules should cater for guaranteed surrender values by having a minimum claim value equal to the guaranteed surrender value and this particular proviso would quite neatly cope with the unit linked policy since such policies have guaranteed surrender values usually equal to the value of allocated units although, of course, such values are only guaranteed in unit terms and not in cash terms.

APPENDIX

PROPOSED RULES FOR VALUING LONG TERM BUSINESS LIABILITIES

Rule 1

The value of a long term business contract shall be not less than the difference between the present value of the sums payable by the company under the contract according to the contingencies upon whcih they are payable, including any bonus or addition thereto made before the valuation date, and the present value of the future premiums, if any, calculated in accordance with these rules.

Rule 2

The rate of interest used in calculating such present values for all contracts in force on the valuation date shall be lower than the overall yield which has been secured on the admissible assets attributed to the long term business at that date valued in accordance with the regulations. In assessing the overall yield no increase shall be assumed in the annual income from variable interest investments and the minimum amount by which the overall yield is to be reduced shall be one-tenth of that rate of yield and not in any case less than 0.8 per cent. The overall yield shall be further reduced, as appropriate, to take account of taxation of investment income.

Rule 3

It shall be permissible for different rates of interest to be used to value different categories of contract, subject where necessary to this being justified by reference to a notional apportionment of the assets between the different categories of contract.

Rule 4

Where the nature and term of the assets and liabilities is such that during the term of the contracts, or as provided in Rule (3) of certain categories of contract, in force on the valuation date further sums are likely to have to be invested in future, the rate of interest which it is assumed will be secured on such future investment shall be stated.

Where that rate is later than the rate of interest used in calculating the present value of the contracts in force on the valuation date a statement must be made justifying the rate of interest so used by reference to the overall yield on the corresponding existing assets reduced as prescribed in Rule (2) the rate of interest which is assumed will be secured on future investments and the nature and term of the assets and liabilities.

Rule 5

The rates of mortality and disability to be used for any contract shall be rates according to tables for the time being recognised as appropriate for the purpose by the Secretary of State.

Rule 6

The premiums to be valued shall, except as provided in Rules (7) and (8), be such premiums as according to the rate of interest and rates of mortality etc. employed in valuing the contract are sufficient to provide for the sums payable by the company under the contracts according to the contingencies upon which they are payable, exclusive of any addition thereto for profits, expenses and other charges.

Rule 7

In order to take account of acquisition expenses, it shall be permissible to make an addition to the annual premium to be valued of an amount not greater than the annual equivalent, taken over the whole period of premium payments and calculated according to the rate of interest and rates of mortality etc. employed in valuing the contract, of 3 per cent of the sum assured under the contract.

Rule 8

The excess of the total of the annual premiums payable under any category of contract over the total of the annual premiums valued, including any additions made under Rule (7), should be adequate in relation to the continuing commission payments and expenses likely to be incurred in fulfilling these contracts.

Where the said excess is unlikely to be adequate, or where no further premiums are payable under any category of contract, provision or additional provision should be made by some other method to be described.

Rule 9

Such provision shall be made as will ensure that the minimum standards prescribed in the above rules may be maintained in future notwithstanding the exercise by any policyholders of any options under their contracts. The provision shall be made by ensuring that the value placed on each contract is and on the basis adopted will in future be not less than the amount payable upon, or the liability resulting from, the exercise of the option, or in such other way as is appropriate. Any negative policy values shall be excluded.

Rule 'X'

The total for all contracts of the provisions made for commission and expenses in the year following the valuation date, comprising: –

(a) explicit provision under Rule (8), and

(b) such further sums as may be assumed to be available for that purpose where under Rule (9) negative policy values have been excluded or the values of optional benefits have been substituted for the policy values otherwise calculated under the rules,

shall be compared with the company's expenditure in the year prior to the valuation date on expenses and, to the extent appropriate in the absence of any new contracts being issued in the following year, commission payments, and additional provisions made for the excess.

Rule 10

For special types of contract in respect of which any of the above rules is inappropriate, that rule may be modi-

fied in a manner appropriate to the special terms of such contracts, provided that the method of valuation adopted makes provision which is adequate for the sums payable by the company under the contracts, for meeting the company's current and future expenses in connection with the contracts and leaves a margin for contingencies consistent with that provided by the above rules.

Rule 'Y'

Where in Rules (8) and (10) comparison is to be made with the commission and expenses paid by the company, those amounts should not be reduced for tax except for years in which the company's investment income is, or is likely to be, subject to deduction for tax.

Rule 11

Provided that, notwithstanding anything in these rules, the liabilities must be valued on bases which, having regard to the value placed on the corresponding assets, do not understate the amount of the contractual liabilities and the company's likely expenses in meeting those liabilities.