

LIFE OFFICE SOLVENCY AND INSOLVENCY

by

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It is quite impracticable to devise an equitable mode of winding-up an insolvent life insurance company (5).

A company being found to be insolvent, what is to be done with it? . . . The actuaries have unanimously recommended a reduction of the sums assured, the same premiums being paid, but the lawyers have agreed that this is impracticable . . . The actuaries are able to take a much higher view; they need not consider what is the law, but what is most consistent with real and substantial justice to all parties. In fact, we may sum it up by saying that the courts of this country are not courts of justice but courts of law (4).

[In relation to a method of treating insolvent life insurance companies as a closed fund] Its simplicity, and the entire absence of opportunity for the kind of deception and fraud usually committed by those who manipulate the assets of insolvent companies, are its most striking merits, and are certainly merits of a high order (1).

1. INTRODUCTION

1.1. LIFE insurance insolvencies are not new. For example, only one British life company survived the bursting of the South Sea Bubble. However, for the last 100 years the life insurance industry has earned an enviable reputation for financial security, and the actuarial profession can justly take great credit for this. But, as a result, very few actuaries have experience of situations of critical solvency or of the practical problems of insolvency. It is more than fifty years since the subject of insolvency was last discussed in Staple Inn, despite the fact that the solvency, and insolvency, of a life company is one of the fundamental issues germane to our training and practice as actuaries.

1.2. It is the author's view that solvency and insolvency must be considered together, and the purpose of this paper is to revive open professional discussion of the subject.

2. HISTORICAL REVIEW

2.1. During the nineteenth century, in a period of financial stability, the Institute received its Royal Charter and the modern scientific life insurance industry that we know today took shape. Life assurance became synonymous with security. Then, in 1869, the Albert Insurance Company failed. This prompted the first legislation specifically governing life assurance companies, the Life Assurance Companies Act 1870, and one of the first consequences of the Act was that the European Insurance Company also went into liquidation in 1870.

2.2. These two failures, and the resulting legislation, caused a great sensation, not least in actuarial circles. Several papers on the subject were discussed at the Institute and some of these are listed in the bibliography, (1)–(9). It is impossible to summarize the learned contributions then submitted by many of the great names of the time, but there was a consensus that if a life office became insolvent it should not be liquidated in the same way as any other commercial trading company but should instead have its business run off as a closed fund.

2.3. Although the 1870 Act was initially welcomed, it had become apparent by the time of George King's paper in 1891 (8) that the Act was not altogether satisfactory in relation to exposing insolvency, and, in the discussion on this paper, A. H. Bailey (who was the actuarial adviser to Lord Cairns in the twenty years it took him to wind up the Albert) said that the clause in the Act relating to the court's powers to reduce the amount of policy contracts of an insolvent company 'in place of making a winding-up order' had been wrongly drawn and should have read 'as a mode of winding up'. This drafting error prevented a company in liquidation from being run off as a closed fund. It has never been corrected and is still a major stumbling block under the present legislation, which is considered later in this paper.

2.4. The 1870 Act had four major provisions, all of which are still with us today without any major alteration of principle. The provisions covered

- (i) Segregation of life funds.
- (ii) Submission of annual returns and quinquennial actuarial valuations.

- (iii) Control of amalgamations.
- (iv) Winding-up of life companies.

2.5. The case histories of the Albert and the European illustrate why this legislation was needed.

2.6. The Albert had been suspected of being insolvent for several years but it actually only failed when it no longer had sufficient liquid assets to pay current claims. Until the 1870 Act there was no way in which a life office which was insolvent in the sense that its actuarial liabilities exceeded its assets could be stopped from trading. It had to be literally 'unable to pay its debts' to current creditors.

2.7. Both the Albert and the European collapsed primarily because their expenses were out of control and, since they were not required to establish proper reserves, the situation was allowed to continue unchecked. There was, however, a subsidiary factor which made their eventual demise larger and more dramatic. It had been the practice in the years leading up to 1870 to amalgamate small, struggling (and often insolvent) companies with larger offices. The Albert and the European between them accounted for a total of fifty-seven companies at the time of their collapse and many of these companies were in fact insolvent at the time of their amalgamation. Thus, during the discussion on one of C. J. Bunyon's papers (5), W. P. Pattison (the actuary who helped draft the 1870 Act) cited an example of one of the companies transferred to the European. This particular company had at the time of transfer £100,000 of assets and, on Pattison's estimation, £150,000 of liabilities. £20,000 'disappeared' at the time of the transfer, and there was a clear implication that it had gone in introductory fees to an intermediary. He says that if the transfer had not taken place there was little doubt that the policyholders of this company would have been much better off as its shareholders "would have been good to pay even £200,000 or £300,000, if necessary".

2.8. The winding-up legislation prior to 1870 was so inappropriate to life companies that a special Act of Parliament was found necessary to deal with the Albert, and the most ample powers were given to Lord Cairns, who was appointed arbitrator, to do what he thought best in the matter. The arbitration, and litigation in connection with it, continued for twenty years.

2.9. The 1870 Act was undoubtedly a great improvement on this

situation but it raised at least one fundamental difficulty, which went unnoticed at the time. Until 1870 the grounds for insolvency were clearly illogical, as the Albert proved, but at least they were unambiguous and straightforward to determine legally. The 1870 Act introduced the concept that "in determining whether or not the company is insolvent the Court shall take into account its contingent or prospective liability under policies and annuity and other existing contracts". In a situation where the actuarial value of liabilities, on any sensible solvency basis, is twice the value of assets, most people would agree that it was insolvent, i.e. unable to pay its debts, taking prospective liabilities into account. The legal position is much less certain in a situation where a solvency valuation shows only a small deficiency. In such circumstances the solvency of the company could be a matter of subjective opinion, and of actuarial argument, and at best there would be a difficult legal decision to be taken.

2.10. The only Institute paper since 1895 on the subject of life office liquidation was in 1925 (10). The paper described the valuation of policies in the winding-up of the National Standard Life Assurance Company Limited which was ordered in 1916. The National Standard was the first important failure since the passing of the 1870 Act. It transacted both industrial and ordinary business and from its last published Board of Trade returns as at 31 December 1913 the Balance Sheet may be summarized as follows:

	£		£
Capital, less amounts written off	88,700	Mortgage and loans	2,200
Life and other policyholders funds	60,800	Investments (at cost) deposited with the High Court	22,900
Loan account and bank overdraft	42,800	Current assets	10,600
Current liabilities	10,000	Purchase of business account	54,200
		Establishment and organization account	112,400
	202,300		202,300

2.11. The valuation as at 31 December 1913 disclosed a deficiency of £2,131 in the ordinary branch and £18,917 in the industrial branch, and in an appended note it was stated that "policyholders in these branches share in the security of the Statutory Deposit of £20,000". In fact this deposit was an asset which was available to all creditors generally and not the exclusive property of policyholders. Furthermore, it was invested in Consols and only realized £11,000 when sold

in the liquidation. These figures speak for themselves and it is not surprising that the ultimate dividend in the liquidation was only a shilling in the pound, and of course outstanding premiums had to be deducted from this for many policyholders.

2.12. U.K. legislation has traditionally been based on the principle of 'freedom with publicity', and it may be that the 'publicity' given these figures eventually resulted in the liquidation, but one cannot help concluding that there had been a great deal too much 'freedom' countenanced before a halt was called. Collins comments "It is a little difficult to understand how the Board of Trade were able to regard these Returns as complying with the statutory requirements."

2.13. The meat of Collins's paper concerns the practical problems of calculating the values of policyholders' claims and there is no doubt he faced formidable difficulties, including the loss of all records of the company's Irish business when the company's Dublin office was destroyed in the Irish Revolution. He goes on to say that the main cause of the failure was, as with all earlier cases, 'gross extravagance' but comments that an interesting feature of the National Standard was that its business was predominantly bond investment business under which no life cover was granted. In the discussion on the paper it also emerged that the National Standard had been taking over the business of other companies without adequate reserves by evading the relevant amalgamation provisions of the 1909 Act.

2.14. Following the collapse of the National Standard there was talk of introducing amending legislation, but in fact nothing was done until the 1958 Act and even then nothing significant changed in relation to the winding-up sections of the legislation.

2.15. The author has not traced any other major failure of a British life company since the National Standard, or even any spectacular rescues, until the crop of failures in 1974 (although a Belfast company collapsed not long before). Of the recent failures, all but two were rescued without diminution of benefits to policyholders, one of these two is the subject of a rescue with a diminution of benefits and the remaining one was allowed to go into full liquidation. Since 1974 there have been further failures; in at least one company benefits have been suspended pending litigation, and earlier this year the first company went into liquidation under the protection of the Policyholder's Protection Act. A review of these failures would itself be a worthwhile subject for a paper but is not attempted here because many of the facts are not known or are still *sub judice*.

3. CAUSES OF INSOLVENCY

3.1. The main cause of the insolvencies of life companies which occurred right up until 1974 was excessive expenses. This surprised the author, who had expected to find that the main cause was failure of the assets, including fraud.

3.2. In 1870 Sprague (2) listed four potential causes of insolvency, namely

- (a) Excessive expenses, initial or renewal.
- (b) Excessive bonus declarations.
- (c) Investment losses.
- (d) Excessively high mortality experience.

3.3. During this paper he expressed his wholehearted support for the 1870 Act and said that it should be effective in preventing insolvencies from the first two causes. He would probably have held this view even after the failure of the National Standard, which he would have blamed on the Board of Trade and not the legislation.

3.4. In relation to the third cause, investment losses, Sprague regarded control as much more difficult. He recognized that the United States system of admitted assets was of some help but could see that it could never be completely secure. He felt that the restrictions involved did more damage than good in comparison with the British system of investment freedom.

3.5. Finally, in relation to mortality, he regarded control as impossible without supervisory control of underwriting. It is perhaps surprising to find that mortality was on the list at all, since we have come to regard it as by far the easiest factor to predict and provide for. However, it was, albeit erroneously, thought by some that the failure of the European was due to a poor mortality experience. A century earlier the great plague of 1665 was sufficiently worrying to the founders of the Equitable in 1765 for them to include in their deed of settlement a provision that "if at any time the City of London should be visited with the plague, or any contagious sickness, the court of directors (if it should appear to them that the affairs of the society required it) might reduce the payment of the respective sums of money which should become due by reason of the deaths which should happen in such time of public calamity, to any sum not less than one-fourth part of the sums due, giving credit for the remainder in the books of the society, to be repaid with interest at 3 per cent, as

soon as the affairs of the society would admit". A similar provision was included when the Norwich Union was founded forty years later, with an addition that if at any time after a valuation the funds appeared insufficient to provide for the entire liabilities of the society, the majority of members present at a general meeting might reduce the sums payable under policies.

3.6. Sprague later (6) dropped the excessive bonuses from his list and added a fifth

(e) Inadequate premium rates.

3.7. The Institute and Faculty guide 'Actuaries and long-term insurance business' (11) states

The financial position of the company is particularly affected by:

- (a) the premium rates on which existing business has been, and current business is being, written,
- (b) the nature of the contracts in force and currently being sold, with particular reference to all guarantees,
- (c) the existing investments and the continuing investment policy,
- (d) the marketing plans, in particular the expected volumes and costs of sales,
- (e) the current and likely future level of expenses, and
- (f) the extent of the company's free estate.

3.8. These items are now grouped under three headings and considered as potential causes of insolvency.

(a) and (b). *Unsound premium rates*

3.8.1. The first and most important task for an actuary is to get the premium rates right in relation to the benefits it is intended to provide and the expenses which the company may be expected to incur. Under certain circumstances the actuary might decide that the risk is uninsurable and that the benefits should not be provided. This could be the case in relation to guaranteed surrender values under income bonds, or maturity guarantees under equity-linked contracts. However, if the actuary gets the premium rates wrong then it is only a matter of time before things go awry.

(d), (e), and (f). *Expenses out of control*

3.8.2. As far as new business expenses are concerned, this is almost a subsidiary part of the preceding paragraph since it is the first chicken which comes home to roost to be checked against actual experience. If the experience is worse than the assumption, this can

only continue for as long as the estate of the office permits, and it is essential to have a proper business plan to monitor this position.

3.8.2.1. Renewal expenses are much more worrying in current inflationary conditions because one does not know what assumption to make about inflation, or the relationship between inflation of investment earnings and inflation of renewal expenses. If the former exceeds the latter the danger is limited, although it can remain a problem for some types of linked contract, but if increases in investment returns are to be permanently lower than the rate of inflation of expenses the problem could be fatal. In this situation the companies which are able to expand in line with the rate of inflation, provided they are selling sound business and able to absorb the new business strains, will probably survive, but those which are declining will be in difficulties which may only be soluble by amalgamations or possibly absorption into a state company which would administer closed funds on terms commensurate with the renewal loadings in the premium rates.

(c) and (f). Asset failure

3.8.3. This is by far the most dangerous potential cause of insolvency and by far the most difficult for an actuary to deal with because it can be sudden, unforeseen and severe.

3.8.3.1. Quoting once more from the Institute and Faculty guide, "Subject to any statutory regulations, the responsibility for investment policy rests with the directors of the company, as also does the decision as to the value to be placed on the assets in any balance sheet."

3.8.3.2. This is a fine principle to state (and to be able to shelter behind if necessary) but it leaves unanswered many of the questions which arise in practice.

3.8.3.3. For any company, leaving aside the problem of investment of future premiums on existing business, it is possible to hypothecate an investment portfolio which is exactly matched to the portfolio of liabilities on a paid-up basis. If, without wishing to digress into matching and immunization theory, one accepts this as the actuary's minimum standard, there are two things which can go wrong with it.

3.8.3.4. First, the company is rarely exactly invested in the ideal matched portfolio. Leaving aside the special cases of linked contracts and income bonds, there will normally be sound commercial reasons,

acceptable to the actuary, for not being wholly matched. In particular, the company cannot be matched if any of the assets required for matching are invested in undated securities, equities or property.

3.8.3.5. In this situation, the actuary should compare the expected investment income on the actual portfolio with the income on the hypothetical matched portfolio. If this comparison discloses a loss, the actuary should be considering setting up a reserve to cover such expected loss.

Even if it discloses a profit, there is still a risk that the mismatched assets will be unable to be sold, when required, on the current yield basis. The actuary should attempt to quantify this risk. One method (which would cover both the expected loss of income and the risk of capital loss) would be to make assumptions about the time it would take to realize the mismatched assets, the realization values, and the price to be paid for the replacement matched assets. These assumptions, together with the differential in investment income during the period, would enable a present value to be put on the cost of switching into the matched portfolio. Since the actuary would in practice only be advocating running for cover into the matched portfolio in unusually adverse circumstances, the assumptions made would have to be conservative. It should be a routine function of the actuarial management of a life office to compare the mismatching reserve on this basis with the unencumbered estate of the office.

3.8.3.6. Perhaps the most dangerous cause of losses in an unmatched position will be a sharp drop in the market value of assets, particularly the undated securities, equities or property. The danger will be compounded to the extent that the free estate is similarly invested. However, provided the drop is not too sudden and the investments are saleable in practice, the position can be kept under control as long as it is efficiently monitored.

3.8.3.7. Secondly, there is the risk of failure of a large asset or assets. This could occur through fraud, although this is unlikely. It could also occur if there have been substantial unsecured loans to connected companies, but these have now in theory been stopped by the Insurance Companies (Valuation of Assets) Regulations 1976 and the powers given to the Department of Trade under the Insurance Act 1974.

3.8.3.8. A more likely alternative in practice is that an investment has been validly made but suddenly loses its value. An example of this might be a property which is of much higher value to its existing

tenant than it could be to anyone else. If the tenant defaults on the lease for any reason the property loses its value. Another example is development property. Placing a value on such assets for the purposes of considering solvency is very difficult, particularly if they are mismatched assets which need to be sold and the proceeds of sale reinvested.

3.9. It is the author's view that the control of investments and prevention of asset failure is the crucial area affecting the solvency of a life company, and yet it is an area over which the actuary has least control, and has to rely on the subjective judgment of himself and others.

3.10. It is not an area that the actuary should shirk. He should concern himself with the assets of the company. He should look at what would have to happen to those assets to make the company insolvent and consider the probabilities of this arising. This is particularly so in times of heady optimism when such theoretical considerations are apt to be ridiculed.

3.11. Nevertheless the actuary is not by his training or position equipped to take complete responsibility for the assets. The Institute and Faculty guidance notes are a great help in stating this point, and the U.S. system of admitted assets, which we are approaching in this country with the 1976 valuation of assets regulations, goes a long way further to letting the actuary off this particular hook. But even the new U.K. regulations have imperfections. Perhaps the most notable of these concerns the valuation of property "at a price equal to the most recent proper valuation". This is cosy, but a valuation on a willing buyer/willing seller basis, as in for example the South African Insurance Act, would be more to the point. While these imperfections remain, any actuary concerned with the solvency of a life company will remain troubled in relation to the side of the balance sheet he neither controls nor has responsibility for, yet which he cannot ignore.

3.12. The statutory actuary remains the person in the front line with responsibility for monitoring the potential dangers which could result in insolvency. The Department of Trade and the Government Actuary's Department act as long stop. Institute policy has rightly been to keep it that way, but if this arrangement is to continue to work satisfactorily it is necessary to recognize those areas in which the actuary cannot be expected to accept total responsibility. In the author's opinion, this calls for differentiation of the risk of

sudden and severe falls in asset values from all other causes of insolvency, including mismatching losses under normal circumstances.

3.13. To the above list of causes of insolvency may be added a final one, namely failure to prevent a winding-up order being petitioned and granted when solvency has, owing to one or more of the other causes, gone. There are several means of restoring solvency to a 'not solvent' company. For example the company may still have some intangible assets which could be realized to restore solvency. An obvious one is the new-business-generating potential of the office. Using R. M. Bangert's method (12), or any similar method, this might be a substantial asset which could be used to persuade existing shareholders either to subscribe additional capital, or to sell their equity to new shareholders who are prepared so to subscribe, and to take this into account in the sale price. A second intangible may be tax losses, including any excess 'E' which could be sold at a higher price than its value implicit in the valuation of the liabilities.

3.14. A company may be 'not solvent' as a closed fund, but solvent as a going concern. The question is, at what stage (and how) do you take it to the courts and make it insolvent? This raises problems for the statutory actuary and, more especially, the supervisory authorities, who have the power to force the company to be wound up but may be aware that such action is going to make the majority of policyholders worse off than they would otherwise be. It also raises problems for any actuary who is a director or is advising either directors or shareholders, bearing in mind that it is an offence for the directors of a company to allow the company to carry on trading when they have reason to believe that it is insolvent, and they can be charged under section 332 of the 1948 Companies Act with giving fraudulent preference to creditors whose claims are paid in full in such circumstances to the detriment of other creditors. The penalties for this offence are unlimited and personal, although in practice charges are unlikely to be brought because it is very difficult to prove that the offence is fraudulent.

3.15. Two years ago the author was advised by an Oxford don writing a thesis on company liquidations that in his opinion one in three of all companies then trading in the U.K. were technically insolvent in the sense that liabilities exceeded assets and that the law relating to the responsibility of directors was hopelessly inadequate to deal with the situation. However the cause of most commercial

company insolvencies is not an asset deficiency but a cash flow problem. In 1869 this happened to the Albert. Nowadays it is inconceivable in relation to a life company and this is a sound reason for making life companies subject to entirely different insolvency legislation from that of other companies.

4. LEGISLATION AND PRACTICE

4.1. *The current legislation and practice relating to the winding-up of insurance companies is best understood by first looking at the position prior to the 1975 Policyholder's Protection Act and then considering the effect of that Act.*

4.2. Insurance company winding-up legislation dating prior to 1973 is to be found in the 1948 Companies Act, the 1958 Insurance Companies Act and the 1967 Companies Act. The 1958 Act largely repeats the 1909 Act, which it repealed, and the 1909 Act in turn largely repeated the 1870–1872 Acts, which it repealed. There are three relevant provisions of the 1958 Act:—

4.2.1. The courts may order a company to be wound up on the application of ten or more policyholders owning policies of an aggregate value of £10,000, or of the Department of Trade. The 1909 Act changed the 1870 Act by making it ten or more rather than one or more policyholders and by introducing the figure of £10,000. The 1958 Act added the power to the Department to bring the petition and the only relevant effect of the 1967 Companies Act was to widen the grounds on which the Department could do so.

4.2.2. Rules are provided for valuing the claims of policyholders in the winding-up. The rules relating to life policies and annuities are reproduced in the Appendix. They are identical to the 1909 rules, which in turn differed from the 1872 rules only in that they left the *mortality table and interest rate to the discretion of the court*, whereas previously the seventeen offices experience tables and 4% interest had been prescribed.

4.2.3. Section 18 provides for the court, in the case of a company which has been proved unable to pay its debts, to reduce the amount of the contracts in force on such terms and conditions as the court thinks just, in place of making a winding-up order. This section is identical in all three Acts.

4.3. The 1973 Insurance Companies Amendment Act (and the corresponding clauses in the consolidating 1974 Insurance Com-

panies Act) purported to introduce two new features. The first is the prevention of an insurance company from being voluntarily wound up. This is sensible protection for policyholders because one can envisage circumstances under which it would be advantageous for the company or the shareholders to cease operations but disadvantageous to policyholders. Policyholders therefore need this protection.

4.4. The second and more important innovation would require the liquidator to carry on the business of the company, unless the court otherwise directs, with a view to its being transferred to another company. It would furthermore give him power to vary existing life and annuity contracts with a view to furthering such a transfer. In addition the court would, if it thought fit and subject to such conditions (if any) as it might determine, have power to reduce the contracts. This is, on the face of it, exactly what is required to prevent a life company from being wound up under normal company legislation and to enable its business to be run off as a closed fund instead, with such reduction of contracts as may be necessary to effect this. *Inter alia* it thus purports to correct the drafting error made in the 1870 Act and referred to by A. H. Bailey and Lord Justice Cairns.

4.5. However, none of the winding-up provisions introduced in the 1973 Act and consolidated in the 1974 Act are yet in force. They can only take effect when the Department of Trade issues regulations for determining the claims of policyholders in a liquidation and generally for carrying into effect the provisions of the 1973 and 1974 Acts relating to winding-up. Such regulations do not yet exist even in draft consultative form. This omission points to a grave legislative deficiency, particularly if the Department are never able to issue regulations and what the law purports to say can never be implemented.

4.6. The present position is therefore that once an insurance company goes into liquidation it is in law and in practice treated like any other company in liquidation, with the exception of the rules under Section 17 and the Third and Fourth Schedules to the 1958 Act, (which guide the court in the evaluation and notification of policyholders' claims in the liquidation) and except for the effect of the Policyholder's Protection Act.

4.7. The general law governing insolvencies stems from the 1948 Companies Act. 173 of the 462 sections of this Act deal with winding-up and numerous regulations have been promulgated as statutory instruments pursuant to it. The 1948 Act repealed most earlier Acts

but does refer back to the 1914 Bankruptcy Act because although a company can only be made insolvent, and not bankrupt, it appears that the bankruptcy rules also apply to the winding-up of insolvent companies in certain respects, for example with respect to the rights of secured and unsecured creditors.

4.8. Apart from voluntary winding-up (ignored for this purpose even though it is still not prohibited), there are six alternative grounds under Section 222 of the 1948 Act on which the court may order the compulsory winding-up of a company. Of these, by far the most common is that the company is "unable to pay its debts", for which purpose contingent and prospective liabilities are to be taken into account. For a life company this presents a problem. Seeking proof that this is the position the court is likely to seek the advice of the appointed actuary. In a case where the author was the appointed actuary he was unable to swear a categorical affidavit to this effect. The situation was that on the weakest valuation basis he was prepared to attest, and on current opinions as to the value of the assets, the liabilities were approximately 101% of the assets. Unable to prove with these facts that the company was or would be definitely unable to pay its debts the author gave an affidavit to the effect that in his opinion it was more probable than not that at some time in the future the company would be unable to pay its debts. Lawyers do not like probability statements and eventually the winding-up order was made on the grounds that the court was of the opinion that it was just and equitable that the company should be wound up. Three observations on this episode may be made with the benefit of hindsight.

4.8.1. First, the author is still not sure if the company would have been unable to pay its debts if it had continued trading, although it is now more likely than it was at the time that this would have ultimately been the case. The proof of this particular pudding lies with the value of the assets, some of which have deteriorated but some of which appear to have improved in the last thirty months. However, many have still to be realized.

4.8.2. Secondly, events have shown up the court's opinion of what is just and equitable as being disastrously awry. What has happened subsequently has in the author's opinion been both unjust and inequitable.

4.8.3. Thirdly, it casts further doubt on whether Section 18 of the 1958 Act is workable, since it depends upon convincing the court

that the company is unable to pay its debts. In a subsequent case of a large office where there was a much greater shortfall of assets, the lawyers still thought Section 18 to be unworkable. In this case, although it was the clear intention from the outset to reduce the contracts, the normal winding-up procedure was commenced but after granting a provisional winding-up order the court was persuaded to stay the full winding-up order pending the preparation of a scheme of arrangement under which the full winding-up would be avoided. This was an ingenious way out of the legal problem but is further evidence of the unsatisfactory state of legislation relating to the winding-up of life companies.

4.8.3.1. Before leaving this point it is worth recording one example where this problem did not arise. The Great Britain Mutual Life Assurance Society was found to be in difficulties soon after the passing of the 1870 Act, and after having its contracts reduced in place of a winding-up order it was run off as a closed fund by another office to the apparent satisfaction of all concerned.

4.8.3.2. It was recognized at that time that there could be difficulties for a proprietary office which would not arise for a mutual office, because if contracts are reduced in place of winding-up this could restore some value to the shareholders equity. This could presumably be taken care of since a reduction of benefits can only be sanctioned "upon such terms and conditions as the court thinks just".

4.9. Upon hearing a petition that the company be wound up the first order to be granted by the court, if it sees fit to do so, is a provisional winding-up order. Under this order the Official Receiver, who is a member of the insolvencies division of the Department of Trade, is always appointed as the provisional liquidator responsible to the court for the winding up. His powers are limited and in effect his job is to protect the assets pending the granting of the full winding-up order. For a large winding up the court will appoint a special manager to assist him with the winding-up, and in practice such person is someone who is considered suitable to be the eventual full liquidator.

4.10 Apart from his duties as provisional liquidator, the Official Receiver is also required under the 1948 Act to collect a Statement of Affairs from the directors of the company and to submit a report as soon as practicable as to the amount of capital issued, subscribed, and paid-up; the estimated amount of assets and liabilities; the causes of the failure; and whether a further enquiry into the promo-

tion, formation, or failure of the company or the conduct of its business would be desirable. The Official Receiver may also submit a report stating whether in his opinion fraud has been committed and if he does so the Director of Public Prosecutions takes over and the court may order a public examination of the alleged fraud.

4.11. The next action of the court is to give the winding-up petition a further hearing and to grant, if it thinks fit, a full winding-up order. The period of provisional liquidation is usually short and during this period the company is in a state of limbo, being neither solvent nor insolvent. The directors of the company still hold office but in practice have no powers, and nothing much can be done except to conduct an inventory of the assets and take steps to protect them. Once the full winding-up order has been granted, the Official Receiver and his special manager start to act, and the directors lose office. Surplus staff are made redundant and the job of calling in the assets starts. Easily realizable assets are transferred to special accounts at the Bank of England. There is a current account and a deposit account, and the deposit account is credited with interest at the rate of $3\frac{1}{2}\%$ per annum, but monies held at the Bank of England can also be invested in Treasury Bills.

4.12. As soon as practicable, the Official Receiver, as provisional liquidator, must summon separate meetings of the creditors and the contributories (shareholders) of the company to determine whether application should be made to the court to appoint a liquidator other than himself. In the case of a life company a technical difficulty arises in that the resolution at these meetings has to be passed by a majority of those present or voting by proxy, both by number and by value of claims. However, the value of a policyholder's claim is unknown at this stage because it has still to be determined by the court according to the rules in the Third Schedule to the 1958 Act, and there is even some doubt as to whether a policyholder whose claim has not vested is a creditor at all. At the one such meeting the author attended the Official Receiver overcame this technical difficulty by taking one vote only, not one by value and one by number as is required, doing it on a show of hands and ignoring proxies, and when the first vote did not give the result he expected he implied that the creditors had not understood the implications of their decision and asked them to vote again, which the bewildered gathering duly did to his eventual satisfaction. The meeting also elects a committee of inspection consisting of not more than five creditors, and this com-

mittee is thereafter responsible for overseeing the liquidator's actions.

4.13. In theory it is possible, under Section 256 of the 1948 Act, to get the court to stay a winding-up at any time after it has been granted. This is done by putting before the court a scheme of arrangement for the reconstruction of the company under Sections 206-9 of the 1948 Act. In practice this very rarely happens. The bankruptcy courts are used to hearing applications from persons asking to be given another chance, and are traditionally unsympathetic. There is a further objection which was until recently thought to be insurmountable in the case of a life office. The legal view is that no scheme of arrangement is likely to find favour with the court unless it can be demonstrated that each policyholder and each creditor will be at least as well off as if the full statutory winding-up course was duly implemented. Now, it would be a daunting enough task in any event to prove this for every one of possibly several thousand policyholders and creditors, but consideration of three aspects highlights the problems.

4.13.1. First, it presupposes that one knows what each policyholder's claim in the liquidation will be, but in practice it takes some time to get the court to hear and rule on the method of evaluating claims under the Third Schedule of the 1958 Act and there are considerable difficulties involved in interpreting and obtaining definitive rulings thereunder.

4.13.2. Secondly, any scheme of arrangement will be extremely complex and will take time to evolve, but the longer the delay the harder it is to gain acceptance for the scheme, particularly if the scheme involves the continuation of premium payments.

4.13.3. Thirdly, it is evident that the policyholders whose policies are of short duration and who elect to discontinue premium payments (and there are likely to be many in this category as a result of the shock caused by the winding-up) are likely to be better off in liquidation (because their claim is on the basis of an unmodified net premium calculation) than under a scheme of arrangement where they receive a small or zero surrender value on discontinuance.

4.14. One scheme of arrangement managed to solve all three problems.

4.14.1. For comparison purposes assumptions were made regarding the value in liquidation of each policy.

4.14.2. The company secured a court order enabling them to con-

tinue to collect premiums from those policyholders willing to pay during the two years it took to evolve the scheme.

4.14.3. The problem of the policyholders whose policies were of short duration was also solved since the delay of two years automatically altered the balance between the value of the claim in a liquidation and the surrender value of the continuing policy. (This point is explained in the Appendix.) In addition, the consortium of offices who were making the scheme of arrangement possible, by effecting a rescue of the office concerned, agreed to boost the surrender values of all policies to levels which were unlikely to be worse than those which policyholders would have received if the full winding-up had occurred.

4.15. Although this scheme of arrangement was successful, it was enormously costly and complex to effect. It is further evidence that new legislation is needed to enable companies in difficulties to have their contracts reduced and be run off as a closed fund without ever getting into the tangle of inappropriate winding-up legislation which fails to recognize the special characteristics of a life office.

4.16. Assuming no scheme of arrangement is sanctioned, the next stage in the winding-up procedure is to evaluate the claims of the policyholders, and this is the only time that the liquidator and the insolvency laws admit that there is any difference between a life office and any other company in liquidation. The liquidator, on the advice of his consulting actuary, puts forward for consideration by the court a basis for the evaluation of claims, and representatives of the various classes and categories of policyholders, other creditors and shareholders, then have an opportunity to argue for alternative methods. The court then rules and, subject to the right of appeal, this ruling becomes binding on all policyholders and creditors. The calculation is made as at the date of the full winding-up order, and once the basis has been laid down by the court it is the liquidator's responsibility to calculate the individual values and notify each policyholder of his claim value. He does this in a form prescribed by the court, as provided for in the Fourth Schedule to the 1958 Act, and this communication also stipulates the appeal procedure in the event of the policyholder wishing to dispute his claim value.

4.17. The Appendix gives the rules to be applied by the courts in determining policyholders' claims in a liquidation. They prescribe an unmodified net premium basis for assurances and the office's premium rates for annuities. Both appear to be designed to put the

policyholder, given a 100% dividend on his claim, in a position to purchase an identical contract with another office. This principle appears just, but it does mean that policyholders' claims will often exceed the reserves previously set up for them, and will always exceed those reserves calculated on a solvency basis, which is the basis logically to be applied in deciding whether or not the company should be wound up in the first place.

4.18. The Appendix also discusses some of the formidable problems which can arise in applying the rules in practice. There can be little doubt that if the rules are ever to be used again they need to be substantially revised, since at present they are too short to be of general application but explicit enough to result in potentially unfair claims being computed in certain circumstances. Any revision of the rules must choose between three approaches.

4.18.1. One option is to extend the rules to cover all the new types of contract which now exist but which were not in evidence when the rules were promulgated in 1870. This is a cumbersome solution and would imply the need for the rules to be continuously updated.

4.18.2. A second option would be to use the statutory mathematical reserve, when such exists. This would mean abandoning the principle referred to in 4.17.

4.18.3. Finally, one could replace the rules with some general wording which gave the court absolute discretion, on actuarial advice, to value claims. This solution has immediate appeal to pragmatic actuaries.

4.19. Meanwhile the liquidator continues to realize the assets and seeks an order from the court to make a first distribution to the creditors out of the realized assets, after making provision for legal costs and liquidation expenses, including his own fees. Preferential creditors are paid in full and these include the Inland Revenue and local authorities. All other unsecured creditors of the life fund, including policyholders, receive identical dividends on their admitted claim. Thereafter, following normal winding-up rules, the remaining assets are realized and further dividends are paid as and when sufficient assets have been realized to make the cost of distribution worthwhile.

4.20. It should be noted that from the date of winding up all assets are treated as falling into one pot to be divided equally amongst creditors in proportion to their claims. There is no segregation of assets between annuitants and others, linked policyholders and others,

or in any other way, except perhaps for the segregation between life and non-life assets in the case of a composite company, and even this is uncertain while the winding-up regulations under the 1974 Act are deferred.

4.21. We now come to the 1975 Policyholder's Protection Act. It was clear in 1974 that the public required and wanted greater protection than was provided by existing legislation against losses arising from the failure of insurance companies. The Department of Trade at that time recognized that the 1973 and 1974 legislation was (contrary to the belief they at one time held) inactive, and that to introduce winding-up regulations for insurance companies was virtually impossible without a major revision of Company Act winding-up legislation, which would be a complex and lengthy process. In this situation, and in the face of opposition from the insurance industry, the Policyholder's Protection Act was pushed through parliament. Inevitably it bears many of the worst features of a rushed compromise, but, if recognized as a temporary stop-gap measure, its merits may be seen to exceed its shortcomings.

4.22. The Act established, and gives powers to, a Policyholders Protection Board. It deals separately with companies that are in full liquidation and companies which are insolvent or approaching insolvency but are not yet in full liquidation.

4.23. In relation to companies which are fully in liquidation, the Act makes it a duty of the Board

- (a) To arrange as soon as reasonably practicable payment of claims due but unpaid at the beginning of the liquidation, at the rate of 90% of such claims.
- (a) To arrange continuity of insurance, where reasonably practicable, at the rate of 90% of future benefits, and to this end to take appropriate measures.
 - (i) to facilitate the transfer of the business to another office, or
 - (ii) to secure the issue of substitute policies by another office.
- (c) To arrange as soon as reasonably practicable payment, at the rate of 90%, of all claims arising between the beginning of the liquidation and the conclusion of any arrangement under (b).

4.24. Where, in the opinion of the Board on the advice of an independent actuary, the pre-existing benefits under any policies are considered excessive, further reductions below 90% may be made.

4.25. If the Board is unable to arrange either substitute policies or a transfer of the business it has a duty to pay policyholders 90% of their claim values in the full liquidation, and for this purpose the Secretary of State may make regulations covering the determination of such values, although he has not yet done so.

4.26. The Board also has powers to assist the policyholders of companies which are not fully in liquidation but are either in provisional liquidation, or have been proved in a petition for winding-up to be unable to pay their debts, or else have on hand an application for a scheme of arrangement under Section 206 of the Companies Act 1948 involving a reduction of contracts. Since the 'unable to pay its debts' case is, as has been shown, almost impossible to prove in practice for a life office, and since a scheme of arrangement can only occur once a winding-up has commenced, in effect this part of the Act concerns companies in provisional liquidation.

4.27. The Board may assist policyholders of companies in provisional liquidation in any way it sees fit, including taking measures to facilitate the transfer of business, and may make conditions for giving such assistance. However it may not assist unless assistance

- (i) excludes any material aid to shareholders; and
- (ii) would cost less than the assistance it would have to give if the company went into liquidation; and
- (iii) would cost less than any other measures open to the Board involving a reduction of existing and future benefits (including any rights to future bonuses on with profit policies) to 90% of their former level (with further reductions for any excessive benefits) and the reduction of all future premiums to 90%.

4.28. The Board has power to make interim payments of any *amount to policyholders of a company in liquidation or in provisional liquidation* if it appears desirable to do so.

4.29. The Board is financed entirely from levies imposed on insurers, separately for life and non-life business. The maximum levy is 1% of general insurance premiums in any one financial year and 1% of premiums in any one financial year in respect of long-term policies effected after 31 December 1974. In 1976 a levy of $\frac{1}{4}\%$ was raised on long-term business.

4.30. The two large 1974 insolvencies referred to earlier in the paper are unaffected by the Act. Two companies are known to have

been aided by the Board, the first already being in provisional liquidation when the Board was appointed in November 1975.

5. CRITICISMS AND SUGGESTIONS

5.1. All the eminent actuaries, many of whom were also barristers, whose views are recorded from the last and only previous era in which life office insolvencies were discussed in Staple Inn spoke out strongly against the winding-up of a life office. This is not surprising for it is common sense to any actuary who has been involved in such a tragedy.

5.2. Most actuaries would agree that if a life company gets into difficulties it should have its business run off as a closed fund with, if necessary, a reduction of contracts to enable this to be done. The major criticism of the legislation prior to the Policyholder's Protection Act is that far from encouraging this to happen it actually prevents it, except in the special case of a scheme of arrangement. A scheme of arrangement is not an ideal solution since it is costly, complex, depends upon a great deal of goodwill both on the part of policyholders and rescuers, and even then requires some questionable decisions to be taken before it can be successfully operated within the framework of the legislation. Because of the financial assistance it provides, the Policyholder's Protection Act does make it easier to find an alternative solution (for example a transfer of the business) and to make payments to policyholders with claims that fall due in the meantime, but it does not directly provide for the closed fund solution.

5.3. The present winding-up legislation (leaving aside for a moment the Policyholder's Protection Act) is unsuitable for a life office for at least seven reasons.

5.3.1. Impaired lives and those who die within a short period of the date of winding-up suffer badly. Claim values take no account of particular circumstances and the claim values are therefore far below the real worth of the policy to such policyholders.

5.3.2. Policyholders have to endure a lengthy delay before they are told what their position is, and an even longer delay before they receive any money. Initially, there is a period during which the liquidator tries to find a rescuer on the basis that if he succeeds then policies will continue, but if he fails they will cease as at the date of winding-up. During this period widows and annuitants desperately

in need of money have to wait in total uncertainty of what is going to happen. It has been known for a liquidator in such circumstances to circulate policyholders saying, in effect, neither my lawyers nor I know what is going to happen so I suggest you take your own legal advice. Even when rescue attempts cease and the decision is taken to fully wind up, further delays ensue while claim values are calculated, and policyholders inevitably face another delay before the first dividend is paid.

5.3.3. The company in liquidation is in a much worse position than before as regards the investments it can make. $3\frac{1}{2}\%$ at the Bank of England is a poor return, and the alternative of Treasury Bills is not altogether satisfactory compared with the full range of investments normally available to an insurance company. Fortunately, there is now a precedent for a company in liquidation to invest in narrower-range trustee securities in addition to Treasury Bills. This precedent was won for a life office in liquidation with some £15 million of liquid funds to invest.

5.3.4. The tax position is even more anomalous. The company is taxed as a life office until the date of the winding-up order. Thereafter it is taxed as a new trading company. This has two effects. First, the company loses the benefit of any accumulated excess 'E'. Secondly, its trading income is its investment income and its expenditure is its management expenses so it is truly taxed on an 'I-E' basis. This applies to all its business, including income from any assets previously attributed to annuity funds, and there is no relief from annuity outgo or for pensions business. These two tax disadvantages are a particularly harsh consequence of the winding-up.

5.3.5. Interest is not, under present legal precedents, paid on claims. In the case of a company which goes into liquidation with a small deficiency, it is quite likely that by the time all the assets have been realized the realization values, together with interest earned in the meantime, will enable dividends totalling more than 100p to be paid, although this could take several years. In this event the dividends would be limited to 100p and the balance would go to shareholders.

5.3.6. Going into liquidation is like falling through a trapdoor, out of the real world of insurance and on to a conveyor belt which drags the company inexorably through a mass of wholly inappropriate bankruptcy legislation and practice, the assets being in many respects shredded rather than preserved in the process. Even the faces are different. Those responsible for the winding-up are in-

experienced in insurance matters, and the insurance division of the Department of Trade is officially no longer involved in the affairs of the company, which are now under the supervision of the (quite separate) insolvency division of the Department. The belt travels along standard winding-up tracks with little scope for deviations, and policyholders inevitably suffer delays, lack of information, frustration and injustice while the process grinds on. Much of this could be avoided if the process were controlled by the insurance division of the Department and the Government Actuary instead of the insolvency division and the courts.

5.3.7. Finally there is the enormous cost and wastage associated with the actual process of winding up. Six examples, the first four taken from the Companies Winding-Up (Department of Trade) Fees Order 1975, will illustrate, and it may be mentioned that the 1975 Order increased the level of fees in percentage terms.

- (i) The Department of Trade fee on purchasing Government securities (including the renewal of 3-month Treasury Bills) is 0.375%, equivalent to 1.5% per annum. On a fund of £25 million with £15 million of liquid assets this is equivalent to £225,000 per annum.
- (ii) The Department of Trade fee for auditing the Official Receiver's or Liquidator's accounts, which is a compulsory exercise, is £23,500 on the first £1 million of the Company's assets and £7,500 on each subsequent £1 million. For a £25 million company this amounts to an audit fee of £203,500.
- (iii) The Official Receiver's fee, where he acts as liquidator, is
 - (a) £50 for the first 25 creditors and £1.50 for each additional creditor, to cover stationery, printing, postage and telephones; and
 - (b) £10,625 on the first £100,000 of assets realized and £5,000 for each subsequent £100,000. This amounts to £1,255,625 for a £25-million company; and
 - (c) half the fees in (b) on amounts distributed to creditors. This amounts to £627,812.50 for a £25 million company.
- (iv) The Official Receiver's fee, where he does not act as liquidator, but was previously Provisional Liquidator, is
 - (a) as in (iii) (a) above
 - (b) £40,000 on the first £1 million which the liquidator

realizes and £15,000 on each subsequent £1 million.

This amounts to £400,000 for a £25 million company.

- (v) The liquidator's fee, when he is not the Official Receiver, has to be approved by the Committee of Inspection. In practice he may be expected to charge on the same basis as the Official Receiver, bearing in mind that the Official Receiver never reduces his fees.
- (vi) Legal fees, including the costs of the court hearing to determine the claims of policyholders in the liquidation or to promote a scheme of arrangement, could be of the order of £1 million.

On this basis the costs of winding up a £25 million life office could be in excess of £3 million, or 12% of the assets. These fees are in addition to the day-to-day running expenses of the company, including the salaries of the staff, the rent, rates, computer costs, and all other running expenses which would be involved in running off the company's business as a closed fund. The enormity of these costs undermines the whole principle of the legislation, which is to break up the company in such a way as to put policyholders in a position to replace as nearly as possible their contract with the failed company.

5.4. All this added up to a very unsatisfactory state of affairs prior to the Policyholder's Protection Act.

5.5. The Policyholder's Protection Act has ameliorated the effect on policyholders of several of these legislative shortcomings.

5.5.1. It makes it a duty of the Board to ensure that policies becoming claims before or after the commencement of the winding-up are paid, at least as to 90%.

5.5.2. While policyholders may still remain in ignorance for some time of what will ultimately be proposed for them, they do know that current claims must be quickly settled, at least as to 90%.

5.5.3. The effect of any inferior investment returns is borne by the insurance industry generally through the levy, and not by the policyholders of the failed company.

5.5.4. The effect of the adverse tax position is borne by the insurance industry generally through the levy, and not by the policyholders of the failed company.

5.5.5. However, instead of correcting the fact that policyholders of companies which go into liquidation with only a small deficiency cannot get more than 100p of dividends in the £ (without interest),

the Act effectively pegs claims at a maximum of 90p if any assistance is to be given.

5.5.6. The majority of (i.e. three out of five) members of the Policyholder's Protection Board consists of insurance specialists, and this must help the situation of policyholders on the conveyor belt.

5.5.7. The enormous costs of liquidation (and the Board's own costs) are borne by the insurance industry generally through the levy, and not by the policyholders of the failed company.

5.6. It is clear from this that the Policyholder's Protection Act, while achieving its prime objective of protecting the policyholders of a failed insurance company in the absence of suitable pre-existing legislation, is at best a temporary measure. It falls far short of being an ultimate solution to the legislative problem, and is in the meantime an unnecessarily expensive burden for the insurance industry to bear.

5.7. Before leaving the Policyholder's Protection Act, the author wishes to state that in his view it was a great pity that changes were made to the contentious Clause 16 of the Bill during its passage through parliament. This clause relates to the Board's powers to intervene and assist in the case of companies which are not in full liquidation, and in its original form it applied to any company that the Secretary of State referred to the Board instead of to companies in provisional liquidation. Its only restriction was to preclude any assistance which would have a material advantage for shareholders, and it did not compare the cost of assistance with that under a full liquidation, nor did it restrict benefits to 90%.

5.8. In its original form, as was recognized by the Department of Trade, it would have overcome all the objections to the pre-existing legislation referred to above. Most importantly, it would have enabled the affairs of policyholders of a company in financial difficulties to be satisfactorily handled completely outside the tangled, costly, complex, and highly inappropriate web of general winding-up law and practice. Furthermore, because of the costs and wastage associated with winding up as listed above, it is probable that the levy on the insurance industry would have been less if the Act had provided for assistance to be given for the continuation of the company without diminution of benefits to policyholders than it is now with assistance given under a winding-up with benefits reduced to the 90% level.

5.9. It should be clear by now that even with the Policyholder's

Protection Act there is a need to completely re-think the principles upon which life office insolvencies should be dealt with and to revise the legislation. Such a review is doubtless under way and, apart from the shortcomings of the current U.K. position, the proposed harmonization of E.E.C. insurance company winding-up legislation must mean that the U.K. needs to be clear about its own objectives and requirements before E.E.C. negotiations become too far advanced. This is obviously something with which actuaries should be closely involved, if not taking the initiative.

5.10. The starting point must be the legal definition of the point at which a life company should be wound up. It has been shown that whereas the pre-1870 and present legislation was in this respect unambiguous, the post-1870 and present legislation is far from clear, except in the extreme and now unlikely case of a company with a hopelessly large deficiency. In deciding when a company should be wound up, it should be recognized that this is not the same as deciding when the company is insolvent. Defining insolvency is too difficult a task.

5.11. Two alternatives to the present position of winding up a company when it is proved to be unable to pay its debts, taking prospective liabilities into account, are now considered.

5.11.1. A company can be wound up when the value of its liabilities, on a rigidly-prescribed basis, exceeds the value of its assets on a similarly prescribed basis, either with or without allowing for a solvency margin. This is the method which has been used in the United States, South Africa, Australia, and many other countries. It has worked well in these countries in relation to insolvency, but unless the valuation bases are regularly updated and flexibly applied it leads to restrictions and anomalies which inevitably affect the ultimate benefits paid to policyholders under normal (solvent) circumstances. This approach has always been rejected in the U.K. in favour of the approach known as 'freedom with publicity', and the U.K. approach is generally accepted to have been to the advantage of policyholders without seriously imperilling their security. We are currently moving in this country towards more and more legislation and greater rigidity, but many, including the author, regret this.

5.11.2. The supervisory authority, the Department of Trade, can be given power to withdraw a company's licence to transact business and such withdrawal can be considered grounds for winding up the company. This method is widely used in European countries and

could become law under the E.E.C. At first sight the approach is objectionable. We know that if the supervisory authorities are given powers they will feel constrained to use them, or at least to ensure that they cannot be criticized for not using them. However the approach has merits, discussed below, which could make it preferable to the alternative of a rigid solvency basis.

5.12. The argument between the two alternatives (three, including the present system) depends upon what is going to happen to a company upon winding-up, and this in turn raises the whole question of how to deal with insurance companies whose finances become suspect.

5.13. This question needs to be considered not only because the present fate of an insurance company in liquidation must be replaced, but also because the impending harmonization of insurance laws in the E.E.C. means that we have to be very clear about the system we want, if we are to avoid having laws evolved in other countries foisted upon us by sheer weight of numbers and our own unpreparedness. These laws have been evolved in countries with traditionally much less freedom (in relation to premium rates, valuation bases, investments, and otherwise) in the conduct of insurance business than we are accustomed to, and it would therefore be surprising if they were entirely appropriate for us.

5.14. The suggestion now put forward is that there should be three stages of dealing with a life company whose finances become suspect

- (a) When a company fails to meet a prescribed standard of financial adequacy, the management and shareholders of the company should be given the opportunity to rectify the position.
- (b) If they are unable or unwilling to do so, they should be replaced by appointees of the supervisory authorities or, on the instigation of the Department of Trade, by the Policyholder's Protection Board.
- (c) Only when the first two stages have been totally exhausted should a full cash winding-up be undertaken.

5.15. In addition there should be a guarantee to preserve the full benefits of the policyholders of a company which is found to be insolvent. It should be a duty of the state to provide policyholders with this security (as it should provide for the security of depositors with banks and other financial institutions) and whether the cost of

this security is met by a levy on the insurance industry or some other way is a subsidiary question of taxation.

5.16. The main argument in relation to the introduction of a prescribed standard of adequacy is a negative one. We must assume that we have got to have a prescribed valuation basis of some sort sooner or later. This has been called for by the legislature (presumably reflecting consumer demand in this respect), and will be required under E.E.C. regulations. Surely it is better to have this rigid basis apply to adequacy and not to solvency. If a company then fails to meet the prescribed standard of adequacy, the supervisory authorities would have power to seek from the company a plan for restoring adequacy and a justification for the company's independent continuation while adequacy is restored. Ideally there should also be provision to permit a company to continue for a long period in breach of the prescribed adequacy standard, provided that it could demonstrate to the supervisory authorities that it was not likely to become insolvent.

5.17. Inevitably, as with any rigid basis, anomalies and imperfections in the prescribed valuation basis will emerge. However, the attraction of having this apply to an adequacy basis is that the basis can be reviewed, and corrected from time to time, using experience gleaned from companies which are technically in breach of the standard and the arguments they advance in justification thereof, but in the meantime the imperfections need not lead to the drastic step of declaring a company insolvent. The alternative of a statutory solvency basis would lead to just this step being taken, since the authorities will be much more inclined to use their powers automatically if a company fails to meet a solvency standard than they will if it fails to meet an adequacy standard.

5.18. Apart from the expediency element of the above reasoning, a secondary argument for introducing the concept of standards of adequacy is that policyholders have a right to expect insurance companies to be financially secure and not just solvent.

5.19. During the first stage of treatment of an ailing company considerable skills may be required to bring the company back to health. This is not the time for professional conservatism. A practical imaginative solution must be found. If the problem is inflation of renewal expenses, it may be injurious to reduce the volume of new business. If the problem is falling sales and initial expense overruns, new contracts may be the answer. If the problem is dubious assets,

there may be nothing one can do except keep a steady nerve. It is in these situations that actuaries are tested and it is essential that the supervisory authorities should be sympathetic to reasonable attempts to correct the position. It is, after all, in their interests as well, since they do not like insolvent companies any more than anyone else.

5.20. However, should the first stage be unsuccessful, or should the management or shareholders of the company be found wanting, the supervisory authorities should have the power to move the company on to the second, and far more drastic, stage of ordering the company to be directed under their own appointee. It is important that such appointee should be experienced in insurance matters. Ideally it should be a senior member of the insurance division of the Department of Trade, or the Policyholder's Protection Board, or a senior actuary or panel of actuaries appointed on the recommendation of the Institute. It should not be the official receiver or a liquidator.

5.21. This is the system known as judicial management in South Africa and rehabilitation in the United States. In the U.S.A. a company in rehabilitation may not only continue its existing business but also write new business. Rehabilitation can last many years and sometimes starts when a company has a very substantial deficit. One case is known to the author of a company which entered rehabilitation some ten years ago with assets worth approximately half its liabilities. It is now approaching solvency.

5.22. Ideally a company should come out of rehabilitation (with or without state financial assistance) by being sold or having its business transferred to another company. Alternatively it may be run on as a closed fund until a stage is reached at which it is in the interests of policyholders that a full cash winding up should be undertaken.

6. EUROPEAN LEGISLATION

6.1. In June 1972 the O.E.C.D. Working Party on Winding-Up and Preferential Claims published a report drawn up for the O.E.C.D. Insurance Committee (13). Not surprisingly for an international body, the report concentrated on the problems encountered when a company with branches in several different countries is to be wound up. The problems are formidable and unlikely to be speedily resolved but are outside the scope of this paper. The report does however have a useful Appendix comparing the domestic procedures followed by

member countries for the compulsory winding-up of insurance companies in 1972.

6.2. In all O.E.C.D. countries except Germany, Greece, Turkey, and the U.K., a winding-up can be both instigated, normally by withdrawing the licence, and controlled by the supervisory authorities. In these four (and in several others as an alternative to action by the supervisory authorities) winding-up is under the control of the courts. Table 1 summarizes the national alternatives.

Table 1. *Systems of compulsory winding up of life companies in O.E.C.D. countries*

<i>Country</i>	<i>Administrative winding-up</i>	<i>Judicial declaration of insolvency under general rules applying to all businesses</i>
Austria	Yes	
Belgium	Yes	
Denmark	Yes	
Finland	Yes	Yes*
France	Yes	Yes†
Germany		Yes*
Greece		Yes
Italy	Yes	
Japan	Yes	Yes
Luxembourg	Yes	Yes*
Netherlands	Yes	Yes*
Norway	Yes	Yes*
Portugal	Yes	
Spain	Yes	Yes*
Sweden	Yes	Yes*
Switzerland	Yes	Yes*
Turkey		Yes*
United Kingdom		Yes*

* Supplemented by rules specific to insurance companies.

† Subsequent to completion of administrative winding-up procedures.

6.3. Policies in force on the date of winding-up may be dealt with in several ways. The most usual first measure to be tried is the transfer of the portfolio to another concern. All countries permit and encourage this and in Italy the Istituto Nazionale delle Assicurazioni can be compelled to accept the transfer.

6.4. Table 2 shows which alternatives to a transfer of the business (apart from the obvious course open to an individual policyholder to discontinue his policy) are allowed in O.E.C.D. countries.

Table 2. *Allowable effects of compulsory winding-up on life policies in force on the winding-up date*

<i>Country</i>	<i>Effect on policy if no transfer is effected</i>
Austria	Immediate termination
Belgium	Continuation in force
Denmark	Automatic termination twelve months after commencement of winding-up
Finland	Termination if no transfer or formation of a mutual association
France	Termination, variation, or continuation in force
Germany	Termination, variation, or continuation in force
Greece	Unknown
Italy	Automatic transfer to I.N.A.
Japan	Variation of contracts to assist transfer
Luxembourg	Termination
Netherlands	Variation of contracts to assist transfer
Norway	Variation of contracts to assist transfer, formation of a mutual association, or continuation of special management
Portugal	Variation of contracts to assist transfer, or formation of mutual association
Spain	Termination
Sweden	Variation of contracts to assist transfer
Switzerland	Variation of contracts to assist transfer or run off under a guarantee fund under special management
Turkey	Unknown
United Kingdom	Termination

6.5. In Switzerland and the Scandinavian countries a special management is appointed to carry out the winding-up, and in some countries, including France, Switzerland, and Italy (where special rules apply) contracts may be reduced by decision of the supervisory authority.

6.6. The E.E.C. draft life directive permits individual countries to establish their own statutory valuation bases, but prescribes explicit 'solvency margins' which must be demonstrated in excess of reserves set up on the national statutory basis. The directive would also empower supervisory authorities to withdraw the licence of a company whose solvency margin fell below its free reserves, calculated on a prescribed basis and known as the 'guarantee fund', unless it is able to submit an acceptable short-term finance plan to rectify the position, and then keep to this plan.

6.7. In 1975 the E.E.C. issued a draft directive on the co-ordination

of laws, regulations, and administrative provisions governing the winding-up of direct insurance undertakings, and a revised draft was circulated in February of this year. The draft states that a company must be wound up if the supervisory authority withdraws its licence whether or not it is insolvent. It also says that in this event the company must cease taking on new business, but that existing contracts are not automatically terminated, and it would enable existing contracts to be reduced to facilitate the winding-up. There is provision for the business to be transferred to another company, but if no transfer takes place the business is run off as a closed fund unless it is deemed to be for the benefit of policyholders that a full cash winding-up should be undertaken.

6.8. From this it can be seen that the existing legislation and practice in the O.E.C.D. countries, and the proposed E.E.C. legislation, is very different from our own and much nearer the author's suggested system. However, there are important differences, in particular in relation to the question of adequacy as opposed to solvency, and the lack of any absolute guarantee of security for policyholders against loss. Furthermore, the European ideal in relation to valuation bases of both assets and liabilities is too rigid and inflexible, particularly since no direct attempt is made to connect the two, and anomalies can arise from judging solvency by looking separately at the book value of assets and the mathematical reserve for the liabilities.

7. NORTH AMERICAN LEGISLATION

7.1. Insurance legislation in the United States has always been much more restrictive than in the U.K. and this extends to the field of winding-up. It is clear from a paper to the Actuarial Society of America by H. W. Smith (9) that most if not all states were by 1894 using a net premium standard for judging solvency, and when a company failed to meet the solvency standard the primary objective was to ensure that a company was reconstructed in some way and not wound up.

7.2. The same attitude prevails today. Legislation is organized on a state rather than a federal level (although the National Association of Insurance Commissioners makes some attempts to standardize legislation) and the following remarks are based upon the author's understanding of the New York State legislation.

7.3. Should a company fail to meet the required solvency standard,

a rehabilitation order is imposed on the company by the court and a rehabilitator is appointed. It is common for the State Superintendent of Insurance to be appointed rehabilitator, although it could be a Consulting Actuary or some other suitably qualified person. The rehabilitator then names several of his own employees to operate the company, using in addition whatever management and staff of the original company are considered necessary. He continues to pay claims, salaries of employees, and expenses incurred after the date of rehabilitation, and to collect premiums, but the shareholders are denied any say in the management of the company.

7.4. If, after a period, it appears to the rehabilitator that the company is irreversibly insolvent and no buyer can be found, he may decide on a full cash liquidation. If the company is liquidated, the State Guarantee Corporation (which is managed by a Board consisting of the Superintendent of Insurance and one representative from each domestic insurer) will be obliged to assure that all policy contracts are maintained in force and that all claims are met in full. In New York the State Life Insurance Guarantee Corporation is established under Section 224 of the State Insurance Law (14) and is empowered and obliged to assume, reinsure, or guarantee the policies or contracts of any impaired or insolvent life insurance company domiciled in New York and doing business for more than three years. Funds for the purpose are levied from other insurers. An impaired insurer is an insurer deemed by the supervisory authorities to be unable or potentially unable to fulfil its contractual obligations, and this enables the guarantee corporation to act during rehabilitation prior to any winding-up order.

7.5. Seventeen states have similar guarantee associations and several additional states have this year been considering introducing them. Of the seventeen, New York was the only one in 1941, but four were launched in 1972, two in 1973, three in 1974, and three in 1975 (15). In 1970 the N.A.I.C. adopted a Model Life and Health Insurance Guarantee Association Act (which was modified in December 1975) (16) with the object of protecting policyholders, annuitants, beneficiaries, and assignees against losses resulting from impairment or insolvency of an insurer. The N.A.I.C. recognizes that life and annuity contracts are long-term arrangements for security and that as an insured may be in poor health or elderly the payment of cash values alone does not adequately meet such needs. It is therefore essential that coverage be continued.

7.6. Like the New York Act, the Model Act provides for the establishment of the guarantee corporation and the means to finance it from levies from other insurers. It details the duties of the corporation, and in so doing distinguishes

- (a) between those insurers whose 'impaired' status is attributable to a finding by the Commissioner prior to an order of liquidation, and those whose 'insolvent' status is attributable to such orders, and
- (b) between insolvent domestic insurers and insolvent foreign (from other states) or alien (from other countries) insurers.

7.7. Prior to an order of liquidation, rehabilitation, or conservation the corporation has no liability. However, upon a finding by the Commissioner that the insurer is impaired, the corporation is authorized to guarantee, assume, or reinsure (or cause to be guaranteed, assumed or reinsured) the policies of the impaired insurer and to levy from member insurers the cost of this aid. The corporation would presumably do so in those situations where early assistance would prevent a more costly insolvency later (e.g. liquidation). The corporation, as a condition of its assistance, may negotiate any requirements or safeguards it deems necessary so long as they are approved by the Commissioner and are accepted by the impaired insurer and do not impair the contractual obligations to the policyholders, insureds, and beneficiaries. In the absence of any court order, before any negotiations become final, the impaired insurer's acceptance of the terms of the corporation's aid is necessary. Through this approach, a mechanism is provided for early action by the corporation before the situation further deteriorates. The policyholders, insureds, and beneficiaries are protected, claims are paid and coverage is continued, for example, through rehabilitating the impaired insurer or reinsuring the policies elsewhere. Furthermore, the statutory language is highly flexible as to what techniques the corporation may employ so as to be able to meet a variety of situations.

7.8. If the insurer becomes insolvent as a result of a final order of liquidation, rehabilitation or conservation, the corporation shall (rather than may) guarantee, assume, reinsure, or cause to be guaranteed, assumed, or reinsured, the policies of the insolvent insurer and assume payment of contractual obligations.

7.8. The duties of the corporation vary with the kind of insurer. If it is a domestic insurer then all policies must be continued and the

contractual obligations met. However, if the insolvent insurer is a foreign or alien insurer, only the contractual obligations which apply to residents of the state must be paid or continued, if they are not covered by a similar law in such insurer's domiciliary jurisdiction.

7.9. Earlier this year Mr Krowitz, a retired member of the New York Insurance Department, speaking in a personal capacity, gave six characteristics of what he would regard as the most satisfactory guarantee fund:

- (1) It would be all inclusive. It would cover all the policyholders of domestic companies, wherever the risks are resident, from one fund. If a similar provision did not exist in all other jurisdictions, it would also cover resident policyholders of foreign and alien licensees from another, separate fund. It would cover all claims regardless of size from the first dollar. It would cover all the risks of a domestic insurer wherever they are resident, if only to avoid the problem of fifty different liquidations for one company.
- (2) Assessment against domestic companies would be based upon total premium income. Assessments against foreign and alien companies would be based upon premium income on all risks resident in the state. The assessment for foreign and alien companies would thus follow the premium tax base.
- (3) Funds would be immediately available to the Superintendent who could use them with the advice of the guarantee fund.
- (4) There would be flexibility in the use of the funds. They could be used at any time; before rehabilitation, during rehabilitation and before liquidation, or upon liquidation, but the use of rescue funds should not be recommended unless the company is under the Superintendent's control or in rehabilitation. The guarantee fund would certainly not wish, however, to rehabilitate a company for the benefit of those who created the problems. It should, therefore, be involved in management until it has at least been reimbursed its contributions, possibly with interest. If fraud has been involved, the Superintendent, of course, will not permit management to continue.
- (5) Policyholder claims should have no absolute and prior preference against the assets of the company.
- (6) To fulfil its function the fund should have all the rights and powers of a domestic life insurance company.

7.10. He went on to say that the desirability of guarantee funds was recognized but the cost of an insolvency guarantee fund and the fears of unfair competition from allegedly irresponsible companies were the principal objections to having one. He discounts these specious objections by saying that not many policyholders will deliberately contract with a company that they do not believe to be solid, because of guarantee fund coverage; that if the Insurance Department thought a company could not fulfil its contractual obligations they would stop it taking on new business and recommend that it be put into rehabilitation; and that the cost was a minuscule amount per policyholder, constituting a premium to

insure against a diminution of benefits in the event of the insolvency of his insurer.

8. CONCLUSION

8.1. Until 1974, the legislation relating to the winding-up of a life insurance company in the U.K. had not been used for over half a century and, despite some revisions and attempted revisions in 1958, 1967, and 1973, when it was needed in 1974 it was found to have serious defects and inadequacies.

8.2. In these circumstances, the Policyholder's Protection Act was introduced as a temporary measure, but this does not obviate the need for a major revision of the legislation and practice relating to life insurance companies in financial difficulties.

8.3. Quite apart from the inherent weaknesses of the present legislative position, there is a further reason why this review cannot be ignored, which is the impending harmonization of E.E.C. legislation and practice relating to the winding-up of insurance companies.

8.4. This is a subject on which we can learn from other countries, including O.E.C.D. countries and the United States, but where it is essential to evolve a system which will be suitable in relation to the special characteristics of the life insurance industry in the U.K. and also capable of being 'harmonized' in the E.E.C.

8.5. It is appropriate that actuaries should play a prominent role in the revision of the legislation and practice, as they did a century ago when the first legislation was introduced.

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REFERENCES

- (1) BUNYON, C. J. (1870) 'On the liquidation of an insolvent life office.' Pamphlet reprinted in *J.I.A.* XX, 281.
- (2) SPRAGUE, T. B. (1870) 'On legislation as to life insurance and life insurance companies.' *J.I.A.* XVI, 77.
- (3) SPRAGUE, T. B. (1870) 'On the liquidation and reconstruction of an insolvent life insurance company.' *J.I.A.* XVI, 229.
- (4) BAILEY, A. H. (1871) 'On insolvency in life assurance companies.' *J.I.A.* XVI, 389.
- (5) BUNYON, C. J. (1872) 'On the valuation of claims upon current policies in the liquidation of a life office.' *J.I.A.* XVII, 1.
- (6) SPRAGUE, T. B. (1874) 'On the causes of insolvency in life insurance companies, and the best means of detecting, exposing and preventing it.' *J.I.A.* XX, 291.
- (7) SPRAGUE, T. B. (1884) Presidential address. *J.I.A.* XXV, 73.
- (8) KING, GEORGE (1891) 'On legislation affecting life assurance companies, more especially with reference to the Life Assurance Companies Acts 1870-1872, as amended.' *J.I.A.* XXIX, 481.
- (9) RYAN, G. H. (1895) 'On certain methods of reconstructing an insolvent life assurance company.' *J.I.A.* XXXII, 33.
- (10) COLLINS, F. L. (1925) 'Winding up a life assurance company under the provisions of Section 17 of the Assurance Companies Act, 1909.' *J.I.A.* LVI 152.
- (11) *Actuaries and long-term insurance business.* Guidance notes prepared by the Institute of Actuaries and the Faculty of Actuaries, 1975.
- (12) BANGERT, R. M. (1973) 'Valuation of a life assurance company for purchase.' *J.I.A.* 99, 131.
- (13) *Compulsory winding-up of insurance concerns.* O.E.C.D. Report, June 1972.
- (14) New York Insurance Law, Section 224.
- (15) *Solvency standards for life companies in the United States, Canada and the United Kingdom* (Record of the Society of Actuaries, Volume 2, Number 1) 1976.
- (16) N.A.I.C. Model Life and Health Insurance Guarantee Association Act, December 1975.

APPENDIX

Insurance Companies Act 1958

THIRD SCHEDULE

*Rules for Valuing Policies and Liabilities**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 annual 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 charges.

Annuities

2. An annuity shall be valued according 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.

Comments on the rules

A1. A century ago when the rules were introduced there was much actuarial argument on the subject of the basis to be used. Interestingly enough, although outside the scope of this paper, the overwhelming weight of actuarial opinion then favoured a gross premium method and not a net premium method for assessing solvency, and the argument was thus between the unmodified net premium method proposed in the rules and a gross premium solvency method. The main argument in favour of the unmodified net premium method is that, in theory, it puts the policyholder in a position to purchase an identical contract with another office, but it was also argued that

as policyholders were in the main unsophisticated and would relate their claims to the total premiums paid, it would create problems to have large numbers of policyholders with zero or very small claims, let alone the possibility that unless negative values were excluded some policyholders would actually owe the company money under the alternative solvency basis. The main argument in favour of the solvency basis was that of consistency with the *status quo ante*. This is a powerful argument but the consensus opinion was with the adopted method.

A2. Three other points were argued and decided 100 years ago. The first concerned whether any allowance should be made for future bonuses on with-profits policies when assessing claims. Legal judgments went both ways before Lord Justice Cairns settled the matter in the Albert case by ruling that no allowance should be made for future bonuses. This seems the right approach in the circumstances and actuarial opinion supported it at the time.

A3. The second point is more difficult. It is the question of whether attention should be given to the circumstances of individual policyholders. Should impaired lives receive a higher claim value? Should account be taken of deaths between the date of winding-up and the determination of claims? Practical expediency won the day and it was ruled that all policyholders should be treated alike and that claims should be computed as at the date of winding-up with no regard to any known subsequent events. This decision makes the liquidator's task, and that of his consulting actuary, much easier but one can have grave misgivings about the justice of it.

A4. The third point was the question of the date as at which claims should be computed. It was ruled that the appropriate date was the date of the winding-up order and not the date of commencement of the winding-up, the date on which the petition was presented. This caused little if any actuarial comment at the time and was of little consequence in the recent case in which the author was involved since less than a month elapsed between the two dates, but it raises much more fundamental questions in relation to the scheme of arrangement case recently before the courts, and is discussed in paragraph A.8.4.1.

A5. Having set the scene, we may now consider how the rules are applied in practice today and what potential or actual problems arise.

A6. For conventional life assurance policies, with and without

profits, the rules are straightforward, unambiguous and easy to apply. In theory there could be interminable argument about the mortality table and interest rate to be used but in practice the courts seem willing to rely on expert actuarial evidence and in most circumstances it should be possible for actuaries to form a consensus view on the mortality and interest assumptions to be used. The only technical difficulty arises on decreasing term assurances where the reserve is negative, but in practice the court needs little persuasion to take the view that the policy is then of no value and not a liability to the policyholder.

A7. The valuation of immediate annuities is also straightforward once it is appreciated that the reference to the company's tables is to the table of annuity purchase rates (and not the table of mortality and interest rate). Once again the intention is to enable the annuitant to use his claim value to purchase a similar annuity to the one he has lost, and if the table of annuity rates is vastly out-of-date the court has power to adopt an alternative basis if it can be persuaded to do so.

A8. Although the rules work satisfactorily as far as they go, that is in relation to conventional assurances and immediate annuities, there are a number of problems when they are applied in current conditions. Some of these are referred to below.

A.8.1. The rules do not provide for linked contracts. In most cases, provided the reference to units is incorporated in the definition of sum assured, a modicum of ingenuity can result in a basis which is both logical and legal, and the only point to make about linked contracts is that the separate identity of the linked assets ceases upon winding-up. This fact has been well known to all involved in linked business for the last ten years or more.

A8.1.1. There are, however, weaknesses. In a recent case, a single premium bond under which the sum assured was defined as the greater of $\text{£}X$ or the value of Y units was valued as the greater of $X.A_x$ and $Y.P$, where P was the price of a unit on the winding-up date. The rationale for the $Y.P$ formula accepted by the court was that the rate of increase effectively assumed for P in future years could also be taken as the rate of discount in valuing the prospective linked benefit. This was a logical and reasonable method of valuation, but had the benefit been described in the policy as the greater of the value of Y units or a sum assured of $\text{£}X$ so that the unit benefit was outside the definition of the sum assured, strict interpretation of the

rules would have meant that the value would be $X \cdot A_x$ with no account taken of the unit element. This is a good illustration of the anomalies that can arise under the present rules.

A8.1.2. A further precedent in the same case related to policies linked to a Unit Trust. The court ruled that as the company's promotional literature had given the impression that the unit portion of the contract was not an insurance policy at all but was an implied trust under which the company purchased units on behalf of the policyholder, and held them as trustee for his ultimate benefit, the claim in the liquidation was for the full value of the units plus the claim value of the residual insurance. The author believes that this ruling was based on a misunderstanding and that there is a possibility that it could have been reversed on appeal, but at the moment it stands and it has been used as a precedent for the purposes of the scheme of arrangement previously referred to. One implication appears to be that policyholders had wrongly received tax relief on the unit portion of their premiums and the Inland Revenue have a right to claim back this tax relief. A further complication was that this ruling acted to the detriment of many of the linked policyholders concerned since the full value of the units was less than the anticipated dividends on the unmodified net premium reserve under the policy. As a result the court went on to rule that these policyholders could elect to have their policies valued entirely as an insurance policy if they so wished. They therefore got the best of both worlds.

A8.2. The rules do not specifically provide for guaranteed income bonds, which, like linked contracts, were unknown when the rules were drawn up in 1872.

A8.2.1. First, there is no provision for a pair of connected contracts and it is not clear whether they should be valued individually and aggregated or valued as a single combined contract, and if so how.

A8.2.2. Secondly, guaranteed surrender values can create a difficulty unless the table of annuity rates used by the company at the time of granting the bond is used. If for example bonds were issued on an interest basis of 7% but, because interest rates were higher at the date of winding-up, the court rules that a basis other than the table of rates must be used, incorporating an interest rate of say 12%, it is quite possible that claim values would be below the guaranteed surrender value. Equity would seem to require that in this event the guaranteed surrender value should be taken as a minimum but the

rules do not appear to allow this to be done as guaranteed surrender values are not mentioned. This point is also relevant in relation to the guaranteed cash value of the deferred annuity portion of the income bond on the vesting date.

A8.2.3. Thirdly, anomalies can arise where the company has issued income bonds for different terms using different rates of interest. Suppose that the company had, five years previously, been issuing 10-year bonds giving a temporary annuity of 80 per 1,000 and 5-year bonds giving 100 per 1,000. It is not clear whether the 10-year bondholders should have a claim value of 1,000 (using the 10-year tables, extrapolated) or $1,000 - 20a_{x:\overline{5}|}$ (using the 5-year tables and adjusting for the difference in the temporary annuity). The position is even less certain when there are fractional durations to run. The precedent set in the recent case previously referred to would give a value of 1,000 in this example, and it was set without the alternative view being argued, but one can envisage a contrary ruling being given in other circumstances.

A8.3. Premium-paying deferred annuities are not provided for in the rules. The author's experience of this problem concerned a handful of deferred annuities issued a long time ago at 4% gross interest. Fortunately the court ruled that the premium tables for this business could not be adopted to its satisfaction, that the annuities should be valued using a prescribed rate of interest and table of mortality, and that this concept should be stretched to include a policy value table. Had it not done so, it is very difficult to see how values could be established in accordance with the rules.

A8.4. The rules are, by precedent, applied as at the date of the winding-up order. In the case in which the author was involved nothing very material hung on the difference between the date of commencement of the winding up and the date of the winding-up order. They were 3 July and 29 July, respectively. No death claims arose in that intervening period and no premiums were due except under one class of policy, and in this class the difference in claim value calculated on the two dates was approximately equal to the premium due.

A8.4.1. Very different considerations apply in the later case under which a scheme of arrangement was approved. Had that company been fully wound up the two dates would have been two years apart and many policyholders would have been materially affected in the interim. Death claims in the intervening period would benefit from using the later date, but most surviving premium-paying policy-

holders would be better off with the earlier date. This particularly applies to policies of short duration. It is evident that ${}_tV > {}_{t+2}V - 2P$ at most ages and terms (where P is the office premium), but outstanding premiums are treated as a debt in the liquidation to be deducted from distributions in the liquidation so that the comparison is really between d_tV and $d_{t+2}V - 2P$, and where the dividend rate, d , is less than unity the balance tilts heavily in favour of the earlier date for these policyholders. Notwithstanding the precedent, it appears to the author that there is a strong case to be made for using the earlier date in such a case. It seems inequitable that surviving premium-paying policyholders should have their claims in the liquidation substantially reduced during this interregnum. There is nothing they can do in this period to protect their position, they cannot surrender their policies, and they are the only creditors to suffer in this way. Fully-paid policyholders will have higher claims the later the winding-up date and other unsecured creditors will be unaffected.

A8.4.2. Admittedly this is an argument between creditors so that either way some will gain and some will lose, since the assets to be divided between them are unaffected by the argument, but in the author's view the most equitable solution would be to take the earlier date, and ideally to make special provision in the determination of claims at that date for deaths which have occurred prior to the full winding-up date, as is in any event now provided under the Policyholder's Protection Act.

A8.5. The question of outstanding premiums raises the more general question of 'set off'. Under normal winding-up legislation a creditor who is also a debtor of the company can set his credit against his debt and claim for the difference. This was not always so and at the end of the last century the situation was particularly harsh on policyholders who had mortgages with an insolvent company which were being repaid by endowment assurance. They were legally liable to repay the mortgages in full and received the same dividend as all other policyholders on their policy. The present position is that mortgages and loans, including policy loans, can be offset against claims in the liquidation but arrears of premiums and non-forfeiture debts have to be paid off in full by way of deduction from dividends in the liquidation. This appears logical and equitable but it exists by dint of precedent and not because it is covered in the rules.