International Association of Consulting Actuaries
12th Conference - February 1990

Recognition of solvency margins and profitability in UK Life Insurance Company published statements

Paper by J A Geddes - Great Britain

(1) Introduction

During the past two decades there has probably been greater change in life office financial reporting in the United Kingdom than during the previous hundred years. Prior to the 1970's there was little more than what would now be regarded as very superficial public demonstration of solvency. Either the directors and their actuarial advisers were implicitly trusted to decide what was an adequate margin of solvency for the business for which they were responsible, or, perhaps more realistically, solvency was taken for granted, not being the issue it subsequently became. Unit linked business had barely been invented and most portfolios were heavily underpinned by substantial portfolios of with-profit business. Perhaps more curiously, there was little disclosure of "profit" beyond what the directors, normally constrained under their company's constitution by the actuary's advice and recommendations, allowed to be released respectively to shareholders through profit and loss account and to policyholders through bonus distributions.

Solvency has always rightly been a matter of prime concern to the statutory authorities (particularly since a number of fairly well publicised collapses in the 1970's) and requirements for specified levels of solvency have in recent years become formalised. This has been achieved first through the prescription of statutory minimum valuation standards for both liabilities and assets of long-term business funds and secondly through the superimposition of statutory solvency margin requirements, only some of which can be implicitly held within the statutorily required prudent liability valuation. The degree of duplication and illogicality this involved was the price to pay for achievement of a broadly uniform EEC structure.

More recently, well within the past five years, increasing attention has been directed towards improved methods of measuring and reporting the trading profitability of a life insurance business. This note first records four different directions from which pressure for better disclosure has arisen, secondly discusses the "true and fair" concept, and thirdly discusses the "embedded value" approach and considers its relevance for "true and fair" reporting.

(2) Sources of Pressure for Change

These are, briefly -

(i) Proposal for an EEC Directive on the Annual Accounts of Insurance Undertakings

This imminent EEC directive affecting life companies is currently expected to require the UK Government to remove the present statutory exemptions from full disclosure of reserves. Current UK legislation permits shareholders/Companies Act accounts to be silent on any profitability of life insurance business, except to the extent of transfers made by the directors to and from profit and loss account (which may bear no relation to any meaningful concept of current trading profits). They can be silent also on any actuarial or other valuation of the liabilities to be met by the reported balance of the life fund revenue account. The returns to the Department of Trade and Industry (DTI returns) which are the only other accounts a company is statutorily required to produce are concerned primarily to demonstrate that the company has, and is likely to continue to have, sufficient assets to provide at least the statutorily required solvency margin of assets in excess of liabilities. The DTI returns, being concerned in this respect only to demonstrate adequacy, require only that actuarial liabilities are not understated by reference to the statutory minimum standards, and thus do not presently prohibit excessively prudent valuation bases and the hidden reserves thereby created.

(ii) UK Financial Services Act

A by-product of this legislation is a requirement for better disclosure of the ability (and intentions) of companies to meet the reasonable expectations of their with-profit policyholders. The thrust of this legislation in this particular area is to bring about improved disclosure to prospective policyholders of what their "reasonable expectations" should be and of the company's ability to fulfil those expectations; and further improved disclosure as time goes on of progress towards meeting those expectations. Initially little more is likely to be achieved than the presently proposed requirement for companies to make available an informative booklet which includes appropriate statements to explain the company's bonus distribution policy. It is likely however that market competitive forces coupled with consumerist pressure will add resolve to the Financial Services Act supervisory bodies to secure in due course more accountability to policyholders in relation to their emerging bonus prospects.

(iii) Proprietor pressure

Corporate groups owning life insurance company subsidiaries have in recent years found an increasing need for more explicit disclosure of both the full economic value and the current trading profitability of their subsidiary life insurance undertakings. This need arises partly from a desire (encouraged by the auditors and the market) to find a common currency for consolidating different subsidiary accounts and also to protect share prices. A further need is to provide appropriate measures on which to base performance-related remuneration for management.

(iv) Fulfilment of Professional Responsibilities

While it could legitimately be claimed that actuaries have for over two centuries been searching for truth and fairness in their contribution to the reporting and management of life insurance businesses, these remain elusive targets, and full "truth and fairness" may indeed be intellectually unattainable. However unless practical responses which retain the right to exercise professional judgement are found in the near future to the thrust of the perceived requirements of the EEC and UK legislation then the legislators, encouraged by accountants and others eager for a practical solution, may well pursue the pragmatic approach of substituting "consistent and unmanipulable/inflexible" for "true and fair" - with resultant arbitrary regulations unhelpful to innovative and progressive management.

(3) "True and Fair" Concept

The present shareholder/Company Act accounts which make full use of the current exemptions clearly fall short of any concept of "true and fair" reporting. The draft EEC Directive requires such accounts in future to "give a true and fair view of the Company's assets, liabilities, financial position and profit or loss". No disclosure exemptions to modify this are currently contemplated by the draft Directive. It is likely that the conditions necessary for a true and fair view include:

(i) prudence
(ii) consistency from year to year
(iii) a "fair" representation of assets and liabilities at an accounting date
(iv) A "fair" representation of profit attributable to an accounting period.

In considering these conditions the apparent nonsense of booking a loss on successfully selling a profitable contract (which can be a feature of the DTI returns prepared for solvency testing) has to be reconciled with the precept not to anticipate profits ahead of being confident that they will both materialise and in due course be either distributable or available to finance reserving requirements for future new business

(4) True and Fair Representation of Assets and Liabilities

A first, and arguably sufficient, step towards true and fair reporting of assets and liabilities would be to require disclosure within the shareholder/Company Act accounts of the mathematical liabilities quantified for the purposes of the DTI returns, and also of any investment or other reserves which at present fall within the exemptions. The Draft Directive requires the liability to be calculated on the basis of "recognised actuarial methods", a condition which this first step indisputably meets.

It needs however to be recognised that present practice in relation to the DTI returns can involve "over-reserving", but the growing public attention to these matters is likely to cause market forces to "encourage" the setting of such reserves within acceptable bounds. It may nevertheless be appropriate for a new requirement to be introduced that the actuary should state, and satisfy the Auditor, that the figure he states to be the mathematical liabilities is not excessive in relation to the provision necessary to satisfy both the minimum statutory valuation standards for solvency purposes and the statutory requirement for the reasonable expectations of with-profit policyholders to be met.

The relevant statutory references to "liabilities" are pertinent.

Regulation 54 of Insurance Company Regulations 1981 defines the statutory long-term liabilities as follows:

> **"Long term liabilities**
>
> **54.** The determination of the amount of long-term liabilities (other than liabilities which have fallen due for payment before the valuation date) shall be made on actuarial principles and shall make proper provision for all liabilities on prudent assumptions in regard to the relevant factors; and that amount shall in the aggregate not in any case be less than the amount calculated in accordance with regulations 55 to 64 below (which shall apply only to long-term liabilities)."

The Company Act definition of provisions for liabilities and charges (CA 1985 - 4 Schedule 89) is:

"Any amount retained as reasonably necessary for the purpose of providing for any liability or loss which is either likely to be incurred, or certain to be incurred but uncertain as to amount or as to the date on which it will arise"

The draft EEC Directive article 52 states rather less satisfactorily

"The amount of technical provisions shall be such as to ensure that all liabilities arising out of insurance contracts can be met by the insurance undertaking."

While it would seem that the "first step" disclosure suggested above would indisputably be both "true" and "fair" the question remains whether a more detailed statement of the liabilities would be helpful to the users of the accounts - viz present and potential shareholders and policyholders. Possible headings under which such further disclosure might be made are as follows:

(i) guaranteed contractual liabilities valued on "realistic" bases
(ii) liability to meet "reasonable expectations" of with-profit policyholders
(iii) additional amount to represent the differences between the mathematical reserves in the DTI returns and the sum of (i) and (ii)
(iv) other reserves.

The usefulness of this further breakdown would be dependent on finding an objective way of defining "realistic" in (i) which was sufficiently generally accepted to make the analysis meaningful and comparable as between different companies.

(5) True and Fair Profit

Traditional UK statutory reporting normally "books" a loss on successfully making a potentially profitable sale of a long-term contract. Accepting this as the basis for shareholder/Company Act Accounts does not provide a valid response to the pressures described in section (2).

However, in moving away from the statutory figures it is necessary to recognise that a life assurance contract with continuing premium payments is not a two-sided long-term contract under which either side can sue the other for performance. Payment by the policyholder of future premium is wholly optional and potentially much less predictable and/or controllable by the Company than any of the other factors. Nor is one manufacturing an asset which can be sold on to someone else if the original purchaser defaults. A cautious approach is therefore essential. A possible approach is to measure profit by reference to a "realistic" office premium valuation incorporating reserves for future bonuses in line with a declared bonus distribution policy (which itself would need to be disclosed).

The basis for such a valuation would need to include provision for all forms of decrement, including early lapses, and would need to be constructed in such a way as to achieve an appropriate balance between profit attributable to the original sale and profit attributable to ongoing management activity in maintaining the contract and investing the assets representing it. So far as the author is aware this is not a route that has had active consideration by actuaries for publication in the UK.

An alternative approach which makes use of "embedded values" has been developed and used for the purpose of recognising the value and profitability of life insurance subsidiaries, and could be used for measurement of the true reserves and profitability within the life office itself.

(6) Embedded Values

The use of embedded values for recognising the value and profitability of a life insurance subsidiary in its parent company accounts has been considered by an Institute of Actuaries Working Party. Its provisional conclusions were recorded in a paper which was discussed in London in November 1988. The approach is to create an embedded value as the discounted value of expected future (after tax) profit transfers to shareholders. It has become customary in parent company accounts for the embedded value to include also the net assets of the subsidiary life company (usually at market value); the author prefers however to identify separately "net assets" and "embedded value of in-force business". Any potential value of future new business is excluded from the embedded value, which thus has regard only to in-force business. Expected future transfers are typically discounted at a risk rate of return and the choice of discount rate has a material effect on the timing of profit recognition in respect of each policy.

The same approach could be used for measurement of the free reserves and profit within the life insurance company itself. There may be some difficulty however in deciding the discount rate to be used if this is conceptually regarded as the risk rate of return required by the proprietor of the business. It will be noted however that if the discount rate were equal to the investment return assumed from the life fund assets the embedded value approach produces the same results as a bonus reserve valuation approach. While this has appeal it is insensitive to the timing of distributability of profit, which is a powerful feature of the embedded value calculation.

By definition the embedded value of a mutual company is zero, though it is possible to adapt the techniques to develop a method which can be standardised for the quantification of the free reserves of the company.

By this approach a true and fair annual profit can be derived as the difference between the embedded values at the beginning and end of the accounting period though it has to be said that accountants are presently resisting this approach as a basis for

published life office accounting. In view however of its affinity with the bonus reserve valuation approach it would seem worth persevering with. To earn credibility it is essential that there should be full disclosure of the valuation assumptions. Of particular importance will be disclosure of the future bonus distribution policy in respect of with-profit business and of the rights and reasonable expectations of with-profit policyholders; truer and fairer measurement and disclosure of profitability, by whatever method, requires more explicit disclosure in this area than companies have been accustomed to publish in the past. Just as the reasonable expectations of with-profit policyholders are difficult to express without reference to the expectations and intentions of the shareholders, so also shareholders' profitability cannot be objectively quantified without regard both to the reasonable expectations of with-profit policyholders and to the company's intentions regarding surplus allocations to provide for bonuses.

While embedded values have now been used for several years in parent company financial statements and their use is thus becoming accepted practice, there remain some concerns that there is presently generally insufficient disclosure of assumptions and analysis of change in embedded value for it to be possible to interpret the published figures with confidence. The Working Party referred to earlier took the approach that it would not be helpful for methodology and bases to be prescribed by either professional guidance or statutory regulation, but that the freedom that this provided required a high level of relevant disclosure. Such disclosure should for example (but rarely, if ever, does) analyse the change in embedded value from one accounting date to the next in sufficient detail to distinguish between "capital" items of profit arising for example from a change in the assumptions, and "revenue" profits arising from trading activity (preferably subdivided between new business acquisition and management of the in-force portfolio). It needs, however, to be recognised that the life insurance companies as commercial enterprises will resist disclosure of commercially sensitive information (into which category may fall the division of revenue profit between new business and management of the in-force portfolio).

A specimen "True and Fair" Balance Sheet making use of the embedded value of in-force business is shown in the attached appendix.

(7) **Summary**

- There is pressure for "Truer and Fairer" disclosure from EEC (harmonisation) legislation, UK (Consumerist legislation), Proprietors, and the accountancy and actuarial profession.

- Responses to this pressure must recognise the genuine commercial interests of the company.

- While well established in DTI returns, levels of solvency need disclosure in shareholders/Company Act accounts.

- So far (except in some parent company accounts) there is no published disclosure of profit from life insurance business until it becomes statutorily distributable. This needs to be and is being addressed. Embedded value techniques provide a route and the calculation processes. Before implementation agreement needs to be reached with the companies and the accountants on appropriate levels of disclosure. EEC "input" while relatively advanced is still only at Draft Directive stage; matters cannot be finally settled until the Directive is promulgated and consequent changes to UK legislation put in train.

"True and Fair" Balance Sheet

(Assuming UK statutory requirement for assets to be identified separately to policyholders and shareholders' funds respectively)

Balance Sheet	Policyholder Fund	Shareholder Fund	Total
Assets (statutory)	A	B	A + B
Embedded Value of in-force business (= policyholder fund assets contingently attributable to shareholders)	(C)	C	-
	A - C	B + C	A + B
Statutory Mathematical Liabilities and Surplus	A	-	A
Capital and reserves	-	B	B
Embedded Value of in-force business (= margins in Mathematical Liabilities contingently attributable to shareholders)	(C)	C	-
	A - C	B + C	A + B