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## LIFE INSURANCE IN EUROPE

*by James C. H. Anderson*

*(The following talk was made at the September meeting of the Atlanta Actuaries Club).*

These comments will be confined to the life insurance business in the United Kingdom and The Netherlands, markets with which I am most familiar. They will cover the general background of the life insurance business, the approach to the market in these two countries, and the design of equity-linked products.

The Abbey International Group has operated in the United Kingdom since 1964 and in The Netherlands since 1967. The population of the United Kingdom is 50 million—about one-fourth the size of the United States; the population of The Netherlands is 12 million—about one-fourth the size of the United Kingdom. The national income of the United Kingdom is about one-sixth of that of the United States, and the national income of The Netherlands is about one-fifth that of the United Kingdom. The life insurance in force in the United Kingdom is only $70 billion—one-fourth of the United States total, and the life insurance in force in The Netherlands is about $20 billion, just over one-third of the United Kingdom total. There are approximately 100 life insurance companies in the United Kingdom, and in The Netherlands there are about 40 companies.

### An Investment

These statistics suggests that the life insurance markets in both United Kingdom and The Netherlands are surprisingly small and relatively overcrowded. The average market share of companies operating in these countries would be smaller than in the United States even after allowing for differences in population and national income. One additional factor, however, alters the figures significantly. Life insurance tends to be purchased as an investment in both the United Kingdom and The Netherlands and if comparative premium figures were available the apparent differences would tend to vanish.

The market available to each company in both countries judging from these figures would not be significantly different from that available in the United States. In another respect, too, the markets in the United Kingdom and The Netherlands compare closely to those of North America—there is widespread public acceptance of life insurance and life insurance companies are regarded as entirely reliable by the public at large.

One great difference lies in the regulation of the life insurance business. In both countries, the philosophy followed is based upon two principles: (1) public disclosure, and (2) freedom of management.

### Legal Requirements

Life insurance companies operating in the United Kingdom are required to file annual reports with the Board of Trade, accompanied each third year by a complete and detailed determination of actuarial liabilities. The law requires that the company maintain its solvency but does not specify the manner of determining the value of the company's assets and the amount of its actuarial liabilities. All life insurance companies must be audited by chartered accountants as is required of any limited liability company, and the company's actuary, who must be professionally qualified, has responsibility to certify that the value of the assets of the company exceeds the amount of its liabilities. The Board of Trade may institute proceedings against any company which it considers to be insolvent and would, under those circumstances, assume direct responsibility for the management of the company.

In the United Kingdom there are no specific statutes governing the format or content of policy contracts which are assumed to be a matter of negotiation between the buyer and the life insurance company. Certain general provisions of law do obtain—an insurable interest must be present or a contract is invalid.

Regulation of the life insurance business in The Netherlands is under the control of the Verzekeringskamer (the Insurance Chamber). This body has the authority to grant, but not to revoke, a license which is required before a company is allowed to commence life insurance operations. In connection with the licensing procedure, the Verzekeringskamer requires detailed information concerning policy contracts, premium and reserve bases, capital structure, projected operating results, and othe matters which will be familiar to any of us who have had the experience of incorporating a new company in this country.

Once a company is licensed, the authority of the Verzekeringskamer changes and it is allowed, thereafter, only to publish a formal advice expressing disapproval of a company's operations and to institute court proceedings against the company to alter the offending action or to revoke its license to do business. In practice, the authority of the Verzekeringskamer is considerable and although formal advices are rare informal advices are frequent. In fact, the Verzekeringskamer does exercise significant control over premium rates, reserve bases and policy content.

So much for the background. Let me now describe our approach to the market in each of these countries, together with some of the reasons which influenced our procedure. To begin with, in both countries we operate as a locally incorporated subsidiary, not as a branch office of a company incorporated elsewhere. We chose this approach because we prefer to emphasize the local nature of our operations and to de-emphasize foreign ownership. Our United Kingdom company presents itself as a British life insurance company—no doubt the name "Abbey" and the familiar silhouette which appears on the company's emblem contribute to our local image.

A second reason for preferring a locally incorporated subsidiary is the fact that such a procedure avoids the dual regulation applying to a branch of a North American company operating elsewhere. We could have established a branch of our U. K. company in other countries, but this would have presented problems of tax and foreign currency. In general, there are no tax advantages favoring a local subsidiary over a branch, provided the branch is incorporated in the country in which the shareholders reside.

A second aspect of our approach to the market concerns personnel. We have not attempted to staff our overseas operations with Americans transferred from head office. A recent article in a

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European paper describes three types of international companies, each with pseudo-scientific and uninformative names. The *ethnocentric* companies are run on the theory that only nationals of the controlling home country can be trusted with responsibility and operations everywhere are run by people of one nationality, that of the controlling owners. The *geocentric* companies go to the other extreme and the central and controlling management has little, if any, immediate involvement with the operations of subsidiary companies incorporated in other countries. There is little, if any, pooling of reserves and talent and the companies gain no strength from their mutual associations. The third type of company is called *polycentric* and personnel are freely transferred from one country to another with little reference to their national origin. The Abbey International Group has cast its lot with the third type. Our U. S. parent company includes personnel from such foreign countries as Canada, the United Kingdom, (even from New York!). Our United Kingdom company abounds with former South Africans; our Canadian company has an Australian president and may soon have an American actuary; our Bahamas company is managed by a Canadian and an American; only in The Netherlands is our Managing Director a native son, but the Adjunct Director is English. We cannot pretend that we made a knowing choice of this personnel policy but we are keenly conscious of its merit.

### Another Aspect

The third aspect to our approach to markets in other countries is our preference for buying an existing company as opposed to organizing one from scratch. We have tried both methods more than once and our preference today is stronger than ever.

The third subject is products—in particular, equity-linked products. When we commenced our operations in overseas markets we agreed in advance that it would be our objective to offer competitive products which would compare favorably with those locally offered. By chance, the company we acquired in the United Kingdom was one which had been among the first to offer equity-linked policies and we followed this channel.

A brief history of equity-linked policies might be useful. They were first introduced in The Netherlands approximately 15 years ago. These early versions were just like orthodox life insurance policies except that all benefits and premiums fluctuated in accordance with the unit value of an equity fund. Happily for us, the idea lay near-dormant until very recently.

### Types of Plans

In England, on the other hand, the equity-linked policy soon acquired considerable prominence. Originally these policies were offered only by insurance companies owned by mutual fund management organizations and the purpose of the policy was to secure for the buyer the tax advantages of life insurance (in the United Kingdom there is an income tax rebate on life insurance premiums) when the policyholder was really buying a mutual fund. A few years ago new companies such as Abbey Life became interested in equity-linked policies as an answer to highly competitive participating policies offered by U. K. life insurance companies. These participating policies are, in a sense, partially equity-linked since profits on the substantial equity portfolio were paid to policyholders. More recently the move towards equity-linked policies in the United Kingdom has become a stampede and some of the more conservative companies, which not more than a year ago were viewing this development with alarm, now offer such plans.

Equity-linked policies can take a variety of shapes and can involve some interesting and unique actuarial problems. Perhaps the simplest policy (except for the original Dutch edition, which was simply a policy expressed in units rather than in currency) is the "percentage allocation plan." Under these policies a specified percentage of each premium, roughly equal to the valuation net premium, is invested in a specified fund of equities. Death benefits can be expressed as the value of the underlying fund plus the amount of the unpaid premiums, or there can be a minimum guaranteed death benefit, a so-called face amount.

The maturity benefit is the value of the allocations, which usually includes the value of reinvested income, and once again there may be some minimum guarantee.

This type of plan overcomes the fundamental problem of the original Dutch plan in that the premium is level. It is not, however, an easy plan for the salesman to describe since the percentage allocations may vary by plan, age and duration. The loadings involved in such a plan are somewhat apparent.

Another variety of equity-linked policies is designed somewhat differently. Under these plans the allocation to units is a level annual amount, equal to the face amount of the policy divided by the period to maturity. In general, the premium is lower than the allocation—the company meets its expenses and mortality costs, and derives its profit, from the investment income which is retained by the company and not reinvested for the policyholder's benefit. It is easy to see the sales advantages of such a plan—the illustrations are independent of age, depending only upon the term of the plan; and they appeal to the buyer who is interested in an equity-linked plan and who apparently has little interest in the investment income.

### Actuarial Problems

The actuarial problems involved with these two types of equity-linked policies are quite different. The first type, the percentage allocation plan, involves conventional actuarial principles. The company receives fixed amounts to cover its expenses, mortality costs and profit and the remainder goes to the policyholder. It is not necessary to predict the yield rate on the equity fund as the company receives an annual charge for managing the fund, as is usually the case; the amount of this charge is influenced by the growth rate of the fund but this refinement is not usually introduced into the calculations. Reserves are generally equal to the amount invested in the fund plus a minor amount for any unexpired risk. One novel problem is added if the plan is one which

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## Actuarial Clubs

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Sometimes Club discussions are "off the record," but that is no reason why such discussions, and some of them are valuable, should not be summarized and printed. The anonymity of the individuals will be preserved.

At least one Club publishes a volume containing the papers submitted and discussed at its meetings. We would like to see such papers before they are published—some of them could be well worth reproducing in *The Actuary*. This could go further. We would encourage the direct submission of papers by any Club members to the Newsletter.

Our second and simple suggestion is that we have proper advance notice of Club meetings if they are to be listed. Proper advance notice means at least two months notice and if the schedule is complete for 1968/69 we should have a copy. The monthly issue of *The Actuary* will list meetings for the succeeding month.

Other activities of the Clubs are also worth reporting. The reported action of one Club in outside affairs could well stimulate other Clubs to favorable outside action.

Our readers will have observed that we try to find books to review which we hope are intellectually interesting even though not strictly within the frame of our day-to-day work.

*The Actuary*, like any other periodical, flourishes on the quality and volume of the material submitted. Actuarial Clubs have an increasingly important role to play in Society affairs and their comments and suggestions on the contents of the Newsletter will be as welcome as the reports of their activities. ☐

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guarantees a minimum maturity value because there needs to be a risk charge for this guarantee against loss.

The second type of product involves some highly sophisticated actuarial techniques. Since the company will derive its income from the investment income on the fund, the yield on the equity fund must be forecast and capital growth will have an enormous impact on the company's income. It is obvious, since the annual allocation generally exceeds the premium, that a substantial amount of cash is required if the company is to fund its liability in full. In fact, most of the plans sold by members of our Group involve a concept we call "actuarial funding"—each year the company invests not the amount allocated in that year but the present value of the amount allocated, and thereafter it reinvests the investment income, thus purchasing the required number of units over the lifetime of the policy.

The concept of under-funding introduces some interesting complications—the company is short sold, having purchased fewer units than value allocated to policyholders; thus a market rise would tend to provoke a loss. At the same time, the company's income is the investment income on the fund and, if the dividend rate remains reasonably constant, the company will report a gain if the market rises since its investment income rises too. In fact, it can be shown that if the running yield on the equity fund remains constant the company sustains neither gains nor losses on account of market movements. This concept of actuarial funding has an important bearing on the financial soundness of the guarantees of maturity value. To the extent that the company has under-funded its liability it tends to make apparent profits when the market declines and these would coincide with the losses sustained on mortality value guarantees. ☐

## BOOK REVIEW

Lawrence D. Jones, *Investment Policies of Life Insurance Companies*, Division of Research, Graduate School of Business Administration, Harvard University, Boston, 1968, pp. *xxi*, 568.

*by Dr. Robert H. Parks*

(*Editor's Note: We are greatly indebted to Dr. Parks for this review. Until recently Dr. Parks was Director of Economic Research for the Life Insurance Association of America.*)

The single elemental question that occupied Mr. Jones throughout this study was whether interest yields played the primary role in directing life insurance companies' investment decisions. His answer is a qualified "yes" for the period studied, 1953-1960, based upon an analysis of the allocation of funds among competing investments in the form of corporate securities, mortgages on residential, commercial, industrial and farm properties, and direct investments in real estate and real property.

While reaching this conclusion derived from a combination of interviews, study of industry data (primarily that of the Life Insurance Association of America), and statistical regression analysis, Mr. Jones is careful to identify other forces also affecting investment decisions. These include the regulation of investments by the various states, the valuation and reserve rules established by the National Association of Insurance Commissioners, the influence of external monetary and fiscal developments, and the continuing non-yield objectives of reasonable liquidity, solvency, credit quality, and diversification.

Although the author stresses the evidence that life insurance companies in the period studied tried to maximize yield to the extent they could while maintaining credit, quality and solvency, he emphasizes, too, that they did not, in the main, attempt to forecast interest rates to further boost returns by allocating funds over time.

### Forward Commitments

Indeed the statistical evidence, he notes, shows that on balance, forward investment commitments tended to reduce life company investment return, at least as compared with the return that would otherwise have obtained under the assumption that all commitments and acquisitions of investments were simultaneous.

Forward commitments, then, were not intended as a mechanism for playing present as against future interest rates to enhance yield. They should rather be viewed, the author suggests, as a "noncompetitive" device developed by life company investment officers to woo loan customers who find the forward investment commitment and the subsequent payout of funds to be a desirable and convenient way to borrow money.

Elsewhere the author makes the point that the "noncompetitive" return affords life companies somewhat higher yields at commitment on their direct place-

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