



SOCIETY OF ACTUARIES

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Military Retirement

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bility by \$6.3 billion; the balance, \$58.0 billion resulted mainly from increased benefits and population growth. The aggregate entry-age normal unfunded liability was \$476.9 billion.

Population Levelling Off

A one hundred year open-group projection shows that the system is approaching a stationary population. Assuming a level active duty and selected reserve force, the total number of retirees will level out at 1.7 million around the year 2000. Dividing retired appropriation outlays by basic pay outlays gives a ratio of 0.58 in FY81, a ratio that is projected to peak at 0.64 in 2000 and to level out at 0.56 in about 2035.

A Legislative Plan In The Works

Department of Defense is sponsoring a legislative proposal that would place the retirement system on an entry-age-normal funding method. The normal cost payment, as well as a payment on the unfunded liability, would be placed into a fund each year; an outside Board of Actuaries, similar to that used with the Civil Service Retirement System, would set assumptions and select the method for amortizing the liabilities.

Admittedly, this proposed fund arrangement is deprived of some of its point because such a fund would be a part of the Federal government's Unified Budget; hence, payments into it are treated as intergovernmental transfers having no impact on the Federal surplus or deficit. Since taxes, at least in theory, are set relative to a certain desired level of surplus or deficit, current taxes would not be affected by additional payments from general revenues into the military retirement system fund; the added cost of any year's funding would be both a general revenue expenditure and a retirement fund income, these two transactions simply cancelling each other. The total privately-held debt would not change, though the total debt would increase, perhaps requiring the government's borrowing authority to be raised.

Even though reallocation of costs between generations of taxpayers is thus thwarted, funding still would have some advantages. Costs or savings, e.g., from long-range changes to the system would be immediately reflected in the DoD

budget; the pension plan's true cost would be paid during the employees' working lifetime if the fund is kept outside the defense budget. □

THIS MONTH'S QUERY FOR ACTUARIES

Readers are invited to send us analyses of the following exchange of opinions between two United Kingdom actuaries, taken from our opposite number, FIASCO, issues of January and May 1982:

By David E. Purchase, F.I.A.: "We all understand the statement that the probability of ruin for a young man's family is 1 in 1000. Most if not all would agree that he should insure against this risk. . . . We all know why the risk is insurable even if we do not say so explicitly—because there are a large number of broadly similar risks and the law of averages can be relied on.

"At the other extreme we are asked to attach some meaning to ruin probabilities for insurance companies. . . . (This approach) is now being applied to Long-Term business in the context of maturity guarantees (for equity-linked insurance) (where) we have a small number of companies 'at risk' . . . (whose) results all depend on the same economy or small group of related economies. There seems to me to be no useful way in which ruin probabilities can be used in these circumstances . . ."

By Anthony B. Pepper, F.I.A.: "We cannot, with certainty, predict the future fortunes of any company. However we can decide that if a company fails to meet suitable criteria then the chance of failure is unacceptably high. . . . I see nothing wrong with the concept of setting a suitable critical probability level, such that any company whose chance of failure is above this level, should be considered unsound. . . ."

"The profession has realized that maturity guarantees could be exceedingly expensive if the stock market were to fall to very low levels when policies mature. For this reason every effort has been made to assess the danger of this hazard and to insist that suitable reserves are held."

We apologize to these two gentlemen for failing to quote their views in toto. Please send comments to the Editor at his masthead address, for summarization with attribution.

E.J.M. □

Actuaries At Work

(Continued from page 2)

Our insurance industry, together with consulting firms and supervisory authorities, now employs more than 1,000 actuaries; it is estimated that 300 more will be needed to meet demands of the next five years.

New Developments

Until recently there was no institutional training nor any examination system for actuaries comparable to those in North America and Great Britain. We usually recruited mathematicians with university degrees who then developed gradually into actuaries. The German Association of Actuaries has now introduced a special actuarial examination to qualify for membership; this will make it easier for young actuaries to enter our Association and may considerably change its age-distribution. The Association has greatly increased its efforts to encourage young actuaries; for example, by seminars and broadening of our literature.

In actuarial circles here discussions about bonus (policy dividend) distribution have assumed an important role. As all policies must be participating and premium levels are high, this is where competition has become increasingly concentrated. Actuaries face the task of designing distribution systems that are not only technically sound but also competitively attractive. Somewhat less attention has been given, of late, to other problems, even to that of inflation to which a fairly satisfactory solution was found quite some time ago, at least for moderate inflation rates, by a combination of profit sharing and premium adjustment.

Another problem of importance and interest to many German actuaries is the current reorganization and financing of our Social Security system. Its financing problems have arisen largely because benefits are provided primarily on an assessment basis; difficulties increase as the relationship between the working population and the retired population shifts more and more in favour of the latter as a result of population aging and a falling birth rate. □