PENSIONS (LOS ANGELES REGIONAL MEETING)

Actuarial Assumptions

A. Interest
   1. What interest assumptions are being used for cost estimates and valuations for
      a) Trusteed retirement plans?
      b) Deposit administration plans?
   2. To what extent is possible appreciation of the funds invested in equities being anticipated in the rates assumed for trusteed retirement plans?

B. Mortality
   1. What has been the recent trend in mortality among pensioners?
   2. Are the 1951 Group Annuity Tables, with or without setback or projection, proving satisfactory for cost estimates and valuations of pension plan liabilities?

C. Disability
   1. What experience with respect to rates of disablement and disabled life mortality, appropriate for pension plan calculations, is available?

MR. BLACKBURN H. HAZELHURST: From 1958 to 1960 we used 3.50% as an interest assumption for funding purposes. The same rate was used both before and after retirement, anticipating a distribution of earned interest on active and retired life funds. Commencing in 1961, we have moved to a 4% assumption in many instances.

Standing behind these assumptions is Pacific Mutual's portfolio which netted 4.38% in 1960. However, while the net yield has averaged over 4.5% in the last forty years, and has exceeded 4.0% in 19 of those forty years, including the last three years, the 21 years when the net yield fell below 4.0% came all together from 1937 through 1957. Obviously, then, averages are interesting, but trends are perhaps even more significant.

Our present trend is upward. The estimated net yield for 1961 is 4.50%, and yield has improved 12 to 15 points a year recently. The new money rate is probably between 5.25% and 5.50%, and continues to bring the portfolio yield up.

Perhaps the "best" estimate of yield in our case would be an assumption of 4.50% for 1961, increasing steadily to 5.25%, and then decreasing to a conservative long-range level of 3.50%. A flat assumption of 4% may be a reasonable approximation to this.

As to what we find in the market place, some other carriers appear to be using 4% with sufficient frequency to encourage our own use of this rate for competitive reasons.

By and large, we find that plans which are solidly controlled by a well qualified consultant have used more conservative assumptions than we are prone to use. This may reflect, in part, freedom from the keen competition among insurance companies, a basic inclination to more conservatism or, just conceivably, a caution born of familiarity with other portfolios.

MR. FORREST S. OCKELS: In the variable annuity plans that we handle at Johnson & Higgins, we generally use a percentage assumption one-half percent higher on the variable part of the plan. The reason for this is, basically, that in funding variable benefits an employer is giving up the opportunity to reduce future costs because of future investment gains and, therefore, we believe that the employer is entitled to recognize this by using a higher interest assumption in the variable part of the plan.

DR. ALAN A. GROTH: I would like to advance a contrary opinion. If an employer who has a variable annuity plan has a fixed portion running concurrently, and the assets of the fixed portion are valued on a cost basis, then the yield on the fixed portion must be higher than that on the variable portion. Consequently, I don't see how you can justify a higher interest rate on the variable portion.

MR. MYLES L. GROVER: It seems to me that the philosophies behind the interest assumption in a fixed annuity plan and a variable plan differ. Under a fixed annuity plan, where the employer is bearing the sole risk, he can use any interest assumption he wishes, even a very conservative one. Under a variable plan, where the investment experience is reflected in benefits going to participants, there should be equity between active and retired participants. To accomplish this, each factor—such as mortality, interest and expense—should be as realistic as possible.

MR. EUGENE H. NEUSCHWANDER: My company's (Fireman's Fund Insurance Company) retirement plan, funded with a large San Francisco bank since 1955, covers some 6,000 employees nationwide. The company annual cost is about $2,000,000 and the assets are now about $12,000,000. The interest assumption used is 3½% and interest earnings are about 4%. A sizable amount of the assets is in equities. We propose to increase the book value of the equities (from cost to market) at some future date in order to raise the benefit level of both active and retired participants.

MR. ROBERT H. LITTLE: Our current practice at Coates, Herfurth & England, which we feel is conservative, is to assume 3½% interest on new plans. In the case of variable plans, we differ somewhat from the philosophy expressed by Mr. Ockels, because if the investment risk is to be shifted to the employee, he should be given an even, or realistic, break

as to the amount of contributions flowing in to establish annuities. Thus, in variable plans, we have used the same interest assumption on the variable part as on the fixed part. We have detected a resistance, on the part of some clients (or their employees), to increasing the interest assumption on variable plans. They would prefer to keep any built-in margin.

MR. CARROLL E. NELSON: As to section A2, I doubt if possible appreciation of the funds invested in equities is being anticipated to any great extent in the rates assumed for trusteed retirement plans. At Nelson and Warren we are trying to keep our interest rates low, simply because of the old devil "inflation." The more conservative we can be, the better we will be able to handle the increased benefits as they come up.

MR. WILLIAM M. RAE: In answer to the questions in section B, I would say that the 1951 Group Annuity Tables *with Projection C* on a generation basis are satisfactory, but barely so.

The most recent report by the Committee on Group Annuity Mortality is helpful in arriving at this answer. It contains an additional table which makes readily apparent the trend of mortality on male pensioners retiring on and after their normal retirement date. This is a five year moving average table of actual to expected by the 1951 Table without projection. The ratios of actual to expected decline steadily from 112% for the period 1946–50 to 101% for the period 1955–59. This is a decline of 11 percentage points in nine years, or a little more than 1% per year. This is very close to the improvement allowed for by Projection C at the ages involved.

However, Projection C has a weakness, as does its companion Projection B, in that it allows for little improvement over age 80 and no improvement over age 90. This weakness will become progressively more serious as more years elapse since 1951 and as the volume of business at these high ages grows. Messrs. Sternhell and Page presented a paper at this meeting mitigating this situation with respect to Projection B. With this I am in hearty accord. I hope that Mr. Peterson, who originated Projection C, or someone else provides us with commensurate treatment as to Projection C.

In constructing the 1951 Table a margin in the mortality rates of 10% for males and 12½% for females was included. Such a margin is needed for, and was intended for, other than improving mortality. It would seem to be the bare minimum to provide a basic safety margin; and to provide for the material fluctuations from average which are bound to occur in many cases; and to provide for the lighter-than-average mortality inherent in many cases. It would seem to be a bare minimum whether the pension plan is self-insured or insured. If the plan is insured there is

partial averaging, through the dividend or rate reduction formula, with other cases. If the plan is self-insured, there is usually no averaging and it must stand on its own feet.

The 1951 Table without projection, but with age ratedowns to accomplish approximately the same result, is, of course, also satisfactory provided the age ratings are revised periodically to adjust for intervening trend.

MR. WILLIAM F. MARPLES: On section C, I do not think anything I say should necessarily be used, because you have to feel your way on disability. Any disability rates that I could quote to you might not be appropriate for use in any one of your situations.

Basically, I am inclined to use the latest Railroad Retirement Board rates as a preliminary estimate, and I am prepared to alter them according to the experience that develops from the administration of the pension plan over a period of time, or according to any preliminary data supplied.

An interesting comparison can be drawn from my consulting practice in England. Two municipal pension plans were identical as to benefit formula and contribution rates. One city treasurer was severe on disabilities, making sure people were really disabled before granting a pension. The other city treasurer used the disability provisions to clear the channels for promotion, etc. The net result was that the first plan had heavy mortality in active service, low disability rates and heavy mortality among disability pensioners. The second plan had light mortality in active service, high disability rates and light mortality among disability pensioners. It is clear from the situation what differences in experience may be caused by administrative policies; and it may be noted that initial administrative intentions may be radically altered by current circumstances not expected at the outset. It should not be necessary to add that the second municipal fund showed the higher costs.

DR. GROTH: I have observed that the cost of the temporary disability benefit to age 64, in the Railroad Retirement Board valuations, was over ten percent of the age retirement costs. This is too high a percentage, and I asked Mr. Niessen, the actuary for the Railroad Retirement Board, about the basis of the most recent rates of disablement.

He told me that these are occupational disability rates and probably should not be used for pension plan valuation purposes, since in most pension plans the retirement for disability payments is still on total, permanent disability rather than occupational disability. He believes his results are about twice as high as they would be if only total, permanent disabilities were used.