

FULL RESERVE VS. PRELIMINARY TERM VALUATION.

Views of Well-Known Consulting Actuary upon
Matter of Prime Importance to Life Companies
—Specially Contributed to THE CHRONICLE.

No well educated actuary would deny, I presume, that the successive yearly computed costs of insurance under every sort of life insurance policy, should be in proportion to the death rates of the table of mortality used as a basis of computing reserve, for the successive present ages of the policyholder, multiplied by the full amount of the policy, less the terminal reserve for each current year. Nor would he deny that this indicates that in all cases of level premium contracts the reserve or investment limits the charge for death costs but does not change the nature of the natural premium for insurance, to make it other than a function of the death rates of the table of mortality, and increasing with age. Whence, if insurance expenses are assessed by any company in proportion to the tabular death rates, or costs of insurance, the actual cost of insurance will be fairly determined, or it is obvious that the expenses will be equitably or fairly assessed, regardless of the age of any policy, provided as above shown it is right to assume that all policyholders have chances of life determinable by their ages and the rates of the table of mortality. And if this is a fair assumption, this will be the measure also of each policyholder's interest in the development and perpetuation of the company; or in this element of expenses for each year. From this point of view vitality gain belongs to the whole company, and should be shared as above, and excessive losses should be charged or distributed in the same way.

But let it be assumed that vitality gain belongs mainly to the more recently received members, among or by the insurance of whom it chiefly arises, through, and exclusively through the instrumentality of medical selection. And let it be further assumed that insurance expenses should be distributed in the same way, or that the portion of such expenses directly incurred in the enlargement of the company should be so distributed. Will any saving to old or new members be the consequence of this distinction, and will more perfect equity be secured? Is it not evident that if the vitality gain so distributed to particular bodies of members equals the expense similarly charged to them, there will be neither gain nor loss to such members, nor to the remaining body of members, or in other words would it not be true that all net assessments for death cost and insurance expense would be the same in effect as if no distinction had been made? If the special expenses exceed the vitality gain specially awarded there will be this amount of loss to the particular body, and gain to the remaining members; and if the vitality gain exceeds the special expenses the difference will be gained by the individual body, and lost by the rest. How then does it appear that old members are robbed by new ones if no distinction is made, so long as amounts of expenses for development and vitality gain are contingencies subject to variation, but which it is the general interest of the company to hold in equilibrium, or not to allow the expense to exceed

the vitality gain, so that the health and strength of the general body and the economy of service to them may be improved rather than otherwise; and do not these considerations lead to a sort of *reductio ad absurdum*, as respects arguments in favour of all sorts of plans for the charge of preliminary expenses to new members? The reception of new members is naturally an advantage to all the other members, unless participation in the fruit of this advantage or vitality gain is arbitrarily withheld from them, and if it is not arbitrarily withheld from them the expense of securing the new members, when shared by the old cannot be an unjustifiable tax upon them, if the shares are divided in proportion to normal costs of insurance or the strength of insurable interest in all cases. Expenses so levied as to discourage the growth of a company are certainly more or less wasteful, an effect which extra expense charged to new and healthy members may be assumed to have, when they are aware of it, whence the economy of expense cannot be intelligently decided except with reference to its heaviness having regard to the company as a whole.

Is it not clear as a corollary of the above considerations that it should not be made the duty of a new member to pay the preliminary cost of inducing him to become such, or, rather, according to common practice, the average cost of securing an application for his amount and terms of insurance, under any circumstances other than in due part by surrender charge, in case of the termination of his policy otherwise than by death, maturity or expiration? This course would evidently adequately protect the company from loss by breach of contract, and would give every new member the benefit of receiving his insurance from the start at normal cost the same as older members, less a *pro rata* share of savings by economy and favourable experience.

Is it not also clearly a legitimate corollary of the above considerations, that the full reserve plan, rather than any sort of preliminary term plan of valuation or determination of reserve, is scientific? It does not exclude any preliminary term insurance plan *sui generis*, and not as a requisite to justify preliminary expense.

Finally, as life insurance is a nearly universal need, and a wholly legitimate business, readily commanding the adequate support of subscribed capital or surplus, in measures suited to satisfy the reasonable ambition of the organizers of a new company, as regards the amount of business sought for the first year, and future rates of growth, may not the advocate of the full reserve plan be quite as much an opponent of life insurance monopoly, and as true a friend of new companies as any advocate of the charge of preliminary expenses to new policyholders, especially if this is done in a covert and naturally misleading way? To charge preliminary expense to new policyholders, if not to provide for the allowance of an extravagant amount, is the practical object of every preliminary term plan; and this should be clearly stated in every policy issued on such a plan. General rules may be taken for granted, but exceptions should be stated.

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BOSTON, May 18, 1909. Consulting Actuary.