

4. In view of the clear language of the prospectus, and the apparent intention to keep the entire profits of the two sections separate, we did not consider that we had any option, in the valuation made as on 31st December, 1885, to do otherwise than treat the two sections as practically distinct concerns, and to apportion the fund in accordance with the particulars supplied to us. Moreover, looking at all the facts, we are of opinion that the course then pursued was just to all parties; and, further, that, if continued, the members of the Temperance Section who permanently adhere to the practice of total-abstinence principles will, in the long-run, have no cause to be dissatisfied.

5. It would appear, however, from the case submitted to us, that in some quarters of the colony the true bearing of the language of the prospectus has not been adequately realised, and that it has been expected that the bonuses to General and Temperance policy-holders will differ only if the rates of mortality in the two sections differ.

If this be the prevailing view in the colony, we think that (legislative sanction being obtained, if necessary),—

(a.) It would be practicable and not unjust to amalgamate the funds of the General and Temperance Sections, and at future valuations to dissect the surplus in accordance with the principle of the clause drafted by the Government Actuary and Statist;

(b.) The question of expediency can be better decided in the colony than in London.

We would, however, remark that, on the one hand, if the funds be kept apart there may from time to time be fluctuations in the relative amounts of profits of the two sections, these fluctuations being produced by various causes, besides differences in the mortality-experience; that it would be difficult to explain popularly the reasons for the fluctuations, and that, consequently, there would be a constant tendency to prejudicial discussions which might interfere with the flow of business and the prosperity of the Association. Moreover, disputes might arise also as to the apportionment of the expenses, which might have similar effects. On the other hand, if the funds be amalgamated, complications must take place in the office calculations, which mean additional trouble and expense: but these can be surmounted, at the cost of additional clerical assistance. In amalgamating the funds, all causes of difference in bonus in like cases would be eliminated, except difference in the mortality-experience of the two sections; and, consequently, the grounds of harassing agitation would be removed.

6. Striking the balance of advantages, in our opinion there is no occasion, in so far as existing members are concerned, to amalgamate the funds; but amalgamation appears to be desired by some portions of the community, and hence is likely to result in extension of business.

7. The method, briefly sketched by the Government Actuary and Statist in the case submitted, of estimating the profit from favourable or the loss from unfavourable mortality in each section, is the correct one; and it would be the proper method to follow, if absolute accuracy in the calculations were a matter of importance. But it would involve an almost prohibitive amount of labour, and we think an approximate method, as suggested by the Government Actuary and Statist, will have practically the same effect.

8. In the Appendix is given a special mortality table, with corresponding monetary tables at 4 per cent. interest. The mortality table has been formed from the standard hitherto used in the valuations of the department—namely, “The Institute of Actuaries’ Experience of Healthy Male Lives”—by dealing only with the duration of the policies, and not with the ages of the lives. It is thus, practically, an average-mortality table, corresponding to the average age at entry according to the Institute experience, namely,  $35\frac{1}{2}$  years. This average-mortality table will measure, with sufficient accuracy, the departure of the experience of the lives assured in the department from the standard, the average age at entry in the department being not very different—namely,  $36\frac{3}{4}$  years in the General Section, and  $33\frac{3}{8}$  years in the Temperance Section.

9. We suggest that the policies in each section should be grouped according to their duration, without reference to age; and that the “expected claims” be ascertained annually, by multiplying the amount exposed to risk for each year of assurance by the corresponding rate of mortality in the average mortality table.

Assuming, for purposes of illustration, that there has been favourable mortality, the difference between the actual claims and expected claims thus calculated will represent, with sufficient closeness, for each year of assurance the extra amount remaining at risk on the books, over and above the amount which would have remained at risk had the mortality-experience of the department coincided with the standard. In order to ascertain the real gain from the favourable mortality, the reserve which must be held against this extra amount